### TUESDAY, MARCH 14, 2017
### MEETING AGENDA

<table>
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<th>Time</th>
<th>Item</th>
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<tbody>
<tr>
<td>10:00 a.m.</td>
<td>1. Call to Order</td>
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<td>2. Roll Call</td>
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<td>3. Mission Statement, Moment of Silence and Pledge of Allegiance</td>
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<td></td>
<td>(AI) 4. Approval of Agenda</td>
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<td>(AI) 5. Approval of February Minutes</td>
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<td>6. Commissioner’s Report</td>
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<td>7. Citizens’ Open Forum</td>
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<td>10:45 a.m.</td>
<td>8. Act on higher education preparation program standards: Chemistry 6-12,</td>
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<td>Physics 6-12 and Foreign Language PreK-12</td>
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<tr>
<td>10:55 a.m.</td>
<td>Break</td>
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<td>11:05 a.m.</td>
<td>9. EducationSuperHighway Report on the Kansas Connect &amp; Learn Initiative</td>
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<td>11:50 a.m.</td>
<td>10. Act on appointment of State Board of Education member to KSHSAA</td>
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<td>Board of Directors</td>
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<td>Noon</td>
<td>Lunch</td>
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<td>(Board Policy Committee will meet in Conference Room 600 North)</td>
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<td>1:30 p.m.</td>
<td>11. Report from Kansas Association of Health Physical Education Recreation and Dance on benefits of physical activity on student performance pg 157</td>
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<tr>
<td>2:15 p.m.</td>
<td>12. Kansas Education Systems Accreditation Zero Year Update page 159</td>
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<tr>
<td>2:30 p.m.</td>
<td>13. Act to renew accreditation status of all public and private schools for 2017-18 school year page 161</td>
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<tr>
<td>2:45 p.m.</td>
<td>14. Teacher Vacancy and Supply Committee Recommendation and Report pg 163</td>
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<tr>
<td>3:05 p.m.</td>
<td>15. Act on new appointment to Licensure Review Committee page 165</td>
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</table>
3:10 p.m.  Break

3:25 p.m.  (DI)  16.  Discussion on HB 2048 (Erin’s Law) and trauma-informed care in schools  page 169

3:55 p.m.  17.  Consent Agenda

  Routine Items
  (RI) a.  Receive monthly personnel report  page 171
  (AI) b.  Act on appointments to unclassified special project positions  page 173
  (AI) c.  Act on recommendations for licensure waivers  page 175
  (AI) d.  Act on recommendations for funding Title II Part B Math and Science  page 179
          Partnership Grants
  (AI) e.  Act on requests from the following districts to hold bond elections:  page 181
          USD 204 Bonner Springs; USD 252 Southern Lyon County; USD 385
          Andover; USD 475 Geary County; USD 497 Lawrence
  (AI) f.  Act on requests from the following districts for capital improvement  page 195
          (bond and interest) state aid: USD 204 Bonner Springs; USD 252
          Southern Lyon County; USD 385 Andover; USD 475 Geary County;
          USD 497 Lawrence
  (AI) g.  Act on recommendations of the Licensure Review Committee  page 211

4:05 p.m.  (IO)  18.  Board Reports and Requests for Future Agenda Items  page 215

4:30 p.m.  (DI/ AI)  19.  Discuss Legislative Matters / Board Response  page 217

              a.  Review education legislation
              b.  Review budget recommendations
              c.  Possible Board action

5:00 p.m.  (AI)  20.  Act on Board Travel  page 219

5:10 p.m.  RECESS
## WEDNESDAY, MARCH 15, 2017
## MEETING AGENDA

**Landon State Office Bld.**
900 SW Jackson St.
Board Room, Ste 102
Topeka, KS 66612

<table>
<thead>
<tr>
<th>Time</th>
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| 9:00 a.m. | 1. Call to Order  
2. Roll Call  
3. Approval of Agenda              | (AI)       |
| 9:05 a.m. | 4. Discuss vision outcome Kindergarten Readiness and receive recommended action for Universal Kindergarten Snapshot | (RI) page 223 |
| 11:05 a.m. | Break                                                                      |            |
| 11:20 a.m. | 5. Board discussion led by Chairman Jim Porter and Vice Chair Kathy Busch (working lunch) | (DI) page 225 |
| 2:00 p.m. | ADJOURN                                                                       |            |

**Next Meeting:** April 18 in Topeka; April 19 in Olathe/Kansas City (third week of month)
VISION
Kansas leads the world in the success of each student.

MISSION
To prepare Kansas students for lifelong success through rigorous, quality academic instruction, career training and character development according to each student's gifts and talents.

MOTTO
Kansans CAN.

SUCCESSFUL KANSAS HIGH SCHOOL GRADUATE
A successful Kansas high school graduate has the
• Academic preparation,
• Cognitive preparation,
• Technical skills,
• Employability skills and
• Civic engagement
to be successful in postsecondary education, in the attainment of an industry recognized certification or in the workforce, without the need for remediation.

OUTCOMES FOR MEASURING PROGRESS
• Kindergarten readiness
• Individual Plan of Study focused on career interest
• High school graduation rates
• Postsecondary completion/attendance
• Social/emotional growth measured locally
KANSAS STATE BOARD OF EDUCATION

Meeting Minutes
February 14, 2017

CALL TO ORDER
Chairman Jim Porter called the monthly meeting of the Kansas State Board of Education to order at 10 a.m. Tuesday, Feb. 14, 2017, in the Board Room at the Landon State Office Building, 900 S.W. Jackson St., Topeka, Kansas. He welcomed those in attendance.

ROLL CALL
The following Board members were present:
John Bacon  Deena Horst  Jim Porter
Kathy Busch  Ann Mah  Steve Roberts
Sally Cauble  Jim McNiece  Janet Waugh

Member Ken Willard was absent.

STATE BOARD MISSION STATEMENT, MOMENT OF SILENCE AND PLEDGE OF ALLEGIANCE
Chairman Porter read both the Board’s Mission Statement and Kansans Can Vision Statement. He then asked for a moment of silence after which the Pledge of Allegiance was recited.

APPROVAL OF AGENDA
Chairman Porter announced that Item 20 concerning cultural diversity and ethnic studies would be postponed until a future time because the presenters had afternoon conflicts arise. There were no other changes. Mrs. Busch moved to approve the Tuesday agenda as amended. Mrs. Horst seconded. Motion carried 9-0.

APPROVAL OF THE JANUARY MEETING MINUTES
Mrs. Horst moved to approve the minutes of the January Board meeting. Mrs. Cauble seconded. Motion carried 9-0.

COMMISSIONER’S REPORT
In his monthly report to the Board, Commissioner Watson discussed how data now available from the National Student Clearinghouse will help track students’ postsecondary enrollment and progress. He illustrated statewide data using the graduating class of 2010 to show the number of students who entered postsecondary institutions, finished or were no longer enrolled. He noted that the NSC data coupled with graduation data will help drive the Kansans Can vision. Commissioner Watson answered several questions on such topics as college transfers, military enlistments and training school personnel on how to use the information as a growth tool. He also commented on the following:

- the previous evening’s dinner with the State Board and committee members from House and Senate Education and K-12 budget
- meetings with legislators on various bills
- the informational Kansans Can videos and postcards sent weekly to legislators
- ongoing work with higher education

Human Resource Director Wendy Fritz briefed Board members on the process of selecting a new superintendent for the Kansas State Schools for the Deaf and Blind. The application deadline is March 17, after which formal interviews and stakeholder meetings will be conducted. A recommendation will be made to the Board no later than May.
CITIZENS’ OPEN FORUM
Chairman Porter declared the Citizens’ Forum open at 10:36 a.m. There was one speaker: John Morton, Emporia State University, who invited members to the April 7 conference sponsored by the Association of Teacher Educators-Kansas. Chairman Porter declared the Citizens’ Forum closed at 10:39 a.m.

DISCUSSION AND ACTION ON THE COALITION OF INNOVATIVE SCHOOL DISTRICTS’ RECOMMENDATIONS FOR ISSUING SPECIALIZED CERTIFICATES
Coalition Chairman Bill Mullins, USD 364 Marysville, reminded members of the Specialized Certificate approval process. He then presented recommendations for issuing Specialized Certificates to five applicants in USD 500 Kansas City Kansas. He stated that applicants have been approved by the local school district and the Coalition. USD 500 continues to implement a multi-step vetting process and extensive training schedule. Shelly Beech, USD 500 Director of Professional Workforce Development, commented on the educator vacancies candidates would be filling, adding that all are participating in the Teaching Fellows Program through Pittsburg State University. She answered questions about the 15 Specialized Certificates approved last June for USD 500. Mr. McNiece moved to suspend Board practice to allow for a vote this month on a receive item. Mr. Roberts seconded. Motion carried 9-0. Mr. McNiece moved to approve the five Specialized Certificate applications as presented for use in USD 500. Mrs. Busch seconded. Motion carried 9-0. Specialized Certificates are good for one year and are non-transferrable to any other Kansas school district.

BREAK
Board members took a break until 11:05 a.m.

ACTION ON KANSAS EDUCATOR PREPARATION PROGRAM STANDARDS FOR ELEMENTARY EDUCATION UNIFIED K-6
Susan Helbert, Assistant Director of Teacher Licensure and Accreditation, along with standards writing committee chair Dr. Sally Roberts from the University of Kansas, presented the final proposed standards for Elementary Education Unified K-6, which would serve as a direct entry special education program for teacher candidates. Institutions of Higher Education would utilize these program standards to develop their educator preparation programs. Dr. Roberts informed the Board that the document now reflects recent updates in the elementary science standards as well as feedback from the public comment period. Board members inquired about categorical aid reimbursement, anticipated reduction in issuance of special education waivers, pedagogical training, and a future report on the interest of students and higher ed in this license. Mrs. Busch moved to approve the new educator preparation program standards for Elementary Education Unified K-6. Mrs. Cauble seconded. Motion carried 7-2, with Mr. Bacon and Mr. Roberts in opposition.

ACTION ON REQUIREMENT TO DETERMINE AND CERTIFY HARD-TO-FILL POSITIONS
K.S.A. 74-4937, Section 5(b), requires the State Board of Education to annually certify the top five types of licensed positions that are hard to fill. Once determined, a school district would be allowed to hire retirees in those positions, plus special education, for up to 36 months if districts are willing to pay the KPERS surcharge. Deputy Commissioner Dale Dennis presented the top five list which was a result of vacancies reported by school districts through the Fall Vacancy Report for 2016-17. There was discussion about whether it was acceptable to further broaden the position categories. Mrs. Cauble moved to approve the following positions as hard to fill for the 2016-17 school year: Elementary Classroom Teacher, Mathematics (5-12), Life and Physical Sciences (5-12), English Language Arts (5-12), and Fine and Performing Arts (PreK-12). Mrs. Horst seconded. Motion carried 9-0.

UPDATE ON REVIEW OF ENGLISH LANGUAGE ARTS STANDARDS
Suzy Myers, English Language Arts Consultant, informed the Board about progress made in the review of the English Language Arts standards by the three workgroups. She described proposed changes.
The full committee will meet March 9 to prepare the document for public review. The next steps are to conduct regional feedback meetings and incorporate any additional changes. Chairman Porter recommended filling the legislator vacancy on the review committee.

**RECOGNITION OF NATIONAL AWARD RECIPIENT DR. KELLY GILLESPIE FOR DESIGN OF DIGITAL OBSERVATION SYSTEM FOR INSTRUCTIONAL LEADERS**

Dr. Kelly Gillespie is CEO of the Southwest Plains Regional Service Center in Sublette. She recently received the E. Roberts Stephens Award from the Association of Educational Service Agencies for her design of the Digital eWalk Through® System as a formative feedback tool for use by principals. She spoke to the Board about the importance of providing educators with support to improve practices through feedback, coaching and mentoring.

At 12:05 p.m., Chairman Porter recessed the meeting for lunch until 1:30 p.m. The Board’s Policy Committee met during the lunch break.

**RECOGNITION OF 2017 KANSAS TEACHER OF THE YEAR TEAM**

Chairman Porter reconvened the meeting and welcomed the first afternoon presenters. Following opening remarks by Deputy Commissioner Dale Dennis, members of the 2017 Kansas Teacher of the Year team introduced themselves and each one talked about a specific aspect of education. They shared stories about meeting a student’s individual needs, advocacy, innovative classroom projects, building foundational relationships, and improving students’ soft skills. A question and answer period followed.

Those presenting were Kansas Teacher of the Year Jason Sickel, a vocal music teacher at Blue Valley North High School (USD 229), and team members Crystal May, a fourth grade mathematics, science and social studies teacher at Pray-Woodman Elementary in Maize (USD 266), Jonathan Ferrell, a sixth grade science teacher at Briarwood Elementary in Overland Park (USD 512), Lori Stratton, an English and reading teacher at Wamego High School (USD 320), Brent Wolf, a sixth grade English language arts teacher at Derby North Middle School (USD 260), Maret Schrader, a language arts teacher at Seaman High School in Topeka (USD 345), Kristi Bruce, a fourth grade teacher at Auburn Elementary School (USD 437), and Jennifer Farr, a fifth grade teacher at Lincoln Elementary in Junction City (USD 475).

**RECOGNITION OF SECURITY BENEFIT AS CHIEF CORPORATE PARTNER FOR KANSAS TEACHER OF THE YEAR PROGRAM**

The State Board of Education recognized Security Benefit, Topeka, for its longtime partnership with the Kansas State Department of Education’s Kansas Teacher of the Year program. Doug Wolff, President of Security Benefit Life, accepted the inscribed recognition plaque presented by Chairman Porter commemorating 18 years of serving as chief corporate partner for the KTOY program. Mr. Dennis commented on the level of Security Benefit’s involvement stretching beyond monetary support. Security Benefit associates serve on the Kansas Foundation for Excellence in Education’s Board of Directors, the KTOY state steering committee and state selection committee, in addition to participating in regional and state awards banquets. Mr. Wolff introduced colleagues in attendance and briefly addressed the Board.

**EXECUTIVE SESSION**

Mrs. Busch moved to enter into Executive Session for 15 minutes for the purpose of consultation with an attorney which would be deemed privileged in the Attorney-Client relationship, in order to protect the privilege and the Board’s communications with its attorney on legal matters. The session would begin at 2:50 p.m. following a break for photos with Security Benefit representatives and the KTOY.
team. Mark Ferguson, Randy Watson and Scott Gordon were invited to join the session. Mr. McNiece seconded. Motion carried 9-0.

**ACTION ON RECOMMENDATIONS OF THE PROFESSIONAL PRACTICES COMMISSION**
Open session resumed at 3:07 p.m. Linda Sieck represented the Professional Practices Commission. Mrs. Busch asked Board Attorney Mark Ferguson to clarify the conflict between the statute and regulation pertaining to the Madison Beckman breach of contract case. Discussion followed, including comments about the contents of the Final Order and the local board of education’s decision. Mrs. Busch moved to take the recommended action of the Professional Practices Commission and suspend Ms. Beckman’s license for the remainder of the 2016-17 contract year. Mr. Bacon seconded. Motion carried 8-0. Mr. Roberts recused himself from the vote.

**MOTION**
*(03:17:52)*
Ms. Sieck then presented the next set of cases. Mrs. Horst moved to adopt the findings of the PPC and revoke the licenses of Troy Smith and Karen Marshall. Mrs. Busch seconded. Motion carried 9-0.

**MOTION**
*(03:19:27)*
The next action was on a petition for reconsideration of the State Board’s Final Order revoking the license of Ansel Barngrover. Mrs. Horst moved to reject the Petition for Reconsideration submitted by Ansel Barngrover and reaffirm the findings of fact and conclusions of the Board in its Order signed Jan. 11, 2017, which adopted the recommendation of the PPC after a 9-0 vote of the Board on Jan. 10, 2017. Mrs. Cauble seconded. Motion carried 9-0.

**RECEIVE HIGHER EDUCATION PREPARATION PROGRAM STANDARDS FOR CHEMISTRY, PHYSICS AND FOREIGN LANGUAGE**
*(03:23:32)*
Education Program Consultant Catherine Chmidling introduced the three committee members who individually summarized proposed revisions to licensure program standards for Chemistry 6-12, Physics 6-12 and Foreign Language PreK-12. These content program standards help establish what is taught in higher education teacher preparation programs. Presenters were Dorothy Hanna from Kansas Wesleyan for chemistry, Eryn Norton Moland from USD 343 for physics, and Leah Ward from USD 259 for foreign language. Board members received the revised standards for review, the previous standards and a comparison of the two versions. Each committee representative answered questions. The Board is expected to vote on the standards in March.

**BREAK**
*(03:49:17)*
Board members took a break from 4 to 4:10 p.m.

**LEGISLATIVE MATTERS**
*(03:49:17)*
Deputy Commissioner Dale Dennis provided an update on recent legislative activity and specifically addressed a number of bills concerning education. He reviewed selected House and Senate bills that are being tracked, including Senate Bill 138 (exempting KPERS licensed school retirants from the working after retirement earnings limitation), Senate Bill 146 (continuation of 20 mill statewide levy for schools), and House Bill 2048 (school district plan addressing child sexual abuse). He provided information on a House Tax Plan and a proposed school finance plan. He answered questions throughout his presentation.

**CONSENT AGENDA**
*(04:40:17)*
Mrs. Cauble moved to approve the Consent Agenda as presented. Mrs. Busch seconded. Motion carried 9-0. In the Consent Agenda, the Board:
- received the monthly Personnel Report for January.
- confirmed the unclassified special projects personnel appointment of Jason Howe as Applications Developer on the Information Technology team, effective Jan. 17, 2017, at an annual salary of $44,990.40.
received second quarter reports (FY 2017) from the Kansas State School for the Deaf and Kansas State School for the Blind.

authorized the following school districts to hold elections on the question of issuing bonds in excess of the district’s general bond debt limitation: USD 264 Clearwater, USD 265 Goddard, USD 423 Moundridge.

authorized the following school districts to receive capital improvement (bond and interest) state aid as authorized by law: USD 264 Clearwater, USD 265 Goddard, USD 298 Lincoln, USD 423 Moundridge.

accepted the following recommendations for licensure waivers valid for one school year:
- Art -- extension on number of days on an emergency substitute license -- Tiffany Ray, USD 260.
- Early Childhood Special Education -- Gwendolyn Dunwiddie, USD 500; Emily Warner, D0605.
- Early Childhood Special Education -- extension on number of days on an emergency substitute license - Fabiola Gutierrez-Mendoza, USD 457. English as a Second Language -- extension on number of days on an emergency substitute license -- Amanda Burress, USD 500. Gifted -- Molly Kysar, USD 260; Jennifer Taylor, USD 336. High Incidence Special Education -- Christopher Richards, Brian Arnold, Natalie Post, USD 202; Madeline Fowler, USD 253; Bailee Jablonowski, Travis Malone, USD 260; Jennifer Taylor, USD 336; Brandon Callahan, Laura Ehler, USD 345; Jamie Slupianek, USD 364; Eric Winters, USD 418; Cristen Bray, USD 453; Raul Silva Sr., Dusty Hopkins, USD 457; Stephanie Sykes, Bruce Lapham, Matthew Fearing, Paul Vaillancourt, Audrey Boring, Brandon Goodwin, Connie Shirley-Olson, Daniel Borger, Destinee Eubank, Janis Tolly, Makayla Sejkora, Shannon Powell, Michael Fredette, USD 500; Sherece Huddlin, USD 501; Margaret Porter, D0602; Adam Sallee, D0609; Traci Pearce, D0620. High Incidence Special Education -- extension on number of days on an emergency substitute license -- Michael Garrison, Dena Walck, Alesa Meschberger, USD 457; John Hendricks, USD 500. Library Media Specialist -- Jason Jones, USD 497. Low Incidence Special Education -- Jennifer Nagel, Nicole Richardson, Taulia Pentecost, USD 259; Emily Freeman, Jessica Schmidt, Vicki Tharp, USD 453; Adam Sallee, D0609. Math -- Robert Zimmerman, USD 259; Melanie McGinn, USD 439. Physical Education -- extension on number of days on an emergency substitute license -- Dylan Weaver, USD 404.

issued Calendar Year 2017 licenses to these recommended commercial driver training schools: Harder Performance Driving School, Overland Park; and Double Team Driving School, Olathe.

approved recommendations of the Mathematics Partnership Review Committee for funding Title II Part B Mathematics and Science Partnership Grants for 2017-18 as follows: Kansas State University $155,242; University of Saint Mary $179,869 in partnership with USD 378, USD 323, USD 379, USD 429, USD 438, USD 233 and USD 416; and Emporia State University $194,605 in partnership with Pittsburg State University, USD 443, USD 461, USD 484 and USD 446.

accepted recommendations of the Evaluation Review Committee for higher education accreditations and program reviews as follows: Kansas State University — accreditation through Dec. 31, 2023; Kansas Wesleyan University — accreditation through Dec. 31, 2023; Friends University — Innovative/Experimental Elementary Education (I, K-6) new program approved through Dec. 31, 2018; Fort Hays State University — History, Government and Social Studies (I, 6-12), Gifted (A, PreK-12), Library Media Specialist (A, PreK-12), School Psychology (A, B-3, PreK-12) all continuing programs approved through Dec. 31, 2024; Pittsburg State University — Biology (I, 6-12), Early Childhood Unified (ECU) (I, B-3), English for Speakers of Other Languages (ESOL) (A, PreK-12), Mathematics (I, 5-8), Mathematics (I, 6-12), Physics (I, 6-12), Restricted (I, 6-12), and Innovative/Experimental SPED High Incidence (I, 6-12), all continuing programs approved through Dec. 31, 2024; Wichita State University — Gifted (A, PreK-12) continuing program approved through Dec. 31, 2024; Innovative/Experimental (I, B-3, K-6) new program approved through Dec. 31, 2018.
Committee Reports
(04:40:48)

authorized the Commissioner of Education to negotiate and enter into a contract with the Kansas Department of Agriculture for the purpose of completing on-site health inspections of unlicensed Summer Food Service Program meal preparation and service sites at the rate of $180 per inspection, not to exceed $39,600, effective May 15, 2017 and not to exceed four months duration;

- continue a contract with the Kansas Board of Regents to fund the services of a Career Pathways Coordinator position in an amount not to exceed $50,000 for the period July 1, 2017 to June 30, 2018;

- continue a contract with Kansas State University to provide Carl D. Perkins leadership grant activities for the position of Executive Director of FFA in an amount not to exceed $75,427 effective July 1, 2017 to June 30, 2018.

Board Reports and Requests for Future Agenda Items

Legislative — Mrs. Horst compiled information on various bills in her “Capitol Observations,” which she shared with the group. Mr. McNiece regarded the Monday night dinner with legislators as very positive and thanked Board members for their participation.

Communications — Mr. McNiece and Mrs. Horst met earlier in the day to discuss communications strategies.

Coalition of Innovative School Districts — Mrs. Horst noted that there would be a video conference meeting Feb. 16.

Student Voice — Mrs. Horst announced that two sets of student responses were being shared. One was from group conversations with students in Career and Technical Student Organizations and the other was Board meeting observations from Baker University student teachers.

Policy — Mrs. Waugh reported that the Policy Committee met at lunch and considered future agenda items, such as social media usage and PPC guidelines. The group will meet again in March.

Juvenile Justice Oversight — Mrs. Waugh commented on topics of discussion at a recent meeting. These included a reduction in juvenile incarcerations, reporting of truancy, and recidivism.

Teacher Vacancy and Supply — Mrs. Busch reported on the February meeting during which the committee talked about alternative elementary, comprehensive science and special education licenses.

Board Attorney Mark Ferguson briefed Board members on the status of lawsuits and offered to answer questions from his monthly written report.

Mr. McNiece toured schools with Lt. Gov. Jeff Colyer to hear about student community service projects and promote the Lt. Governor’s Citizenship Award. Mr. Roberts attended the Career and Technical Education Conference in Manhattan and the KEEN Conference in Topeka. Mrs. Busch reported on KSHSAA’s study of a proposal on classifications. Mrs. Waugh attended her first Board meeting with the Kansas Alliance for Arts in Education. She also attended legislative committee meetings and is working with the Confidence in Public Education Task Force on this year’s Challenge Awards. Mrs. Cauble participated in the Interstate Migrant Education Council conference in San Diego and talked about the various presentations. Mrs. Horst attended the KEEN awards luncheon and spent several days at the legislature. Mrs. Mah reported on attending the Kansas Workforce Summit and signing day at Washburn Tech.
During his Chairman’s Report, Mr. Porter appointed Janet Waugh and John Bacon to serve on the interview team for the Kansas State School for the Blind and Kansas State School for the Deaf superintendent candidates. He commented on attendance at a breakfast sponsored by the Kansas Association of Independent and Religious Schools, discussed recent meetings with legislators and shared an overview of the next day’s work session.

Requests for Future Agenda Items:
Mrs. Cauble requested a future status report on the Elementary Education Unified K-6 license, including higher education program interest and student obtainment.

BOARD MEMBER TRAVEL
Additions to the travel requests were: Mrs. Mah - March 8 school visits with Commissioner Watson; Mr. Porter Feb. 24 Functional Family Therapy presentation in Pittsburg, March 13 KAEA meeting in Topeka. Mr. McNiece moved to approve the travel requests and additions. Mrs. Horst seconded. Motion carried 9-0.

RECESS
At 5:45 p.m., Chairman Porter recessed the meeting until 9 a.m. Wednesday.

WORK SESSION — WEDNESDAY, FEB. 15, 2017
The Kansas State Board of Education convened at 9 a.m. on Wednesday, Feb. 15, for a work session, which was held in Room 509 of the Landon Building. Board members in attendance were: Chairman Porter, Vice Chair Busch, Mr. Bacon, Mrs. Cauble, Mrs. Horst, Mrs. Mah, Mr. McNiece, Mr. Roberts, Mrs. Waugh.

Chairman Porter and Vice Chair Busch led the first part of the day’s agenda addressing the question, “How do you as an individual see yourself and the Board as a whole, working to implement the State Board’s vision?” Board members divided in small groups and reported on the conversations, citing the following recommendations:
- Support the vision in multiple settings
- Use applied resources
- Connect with the public, not just schools
- Enhance the business/education alliance
- Establish a subcommittee to reach out to businesses
- Create a PowerPoint to be used in presentations to civic groups
- Identify successful models and show benefits of the vision

The next discussion centered on the questions, “What is our role in the Legislative Process and how do we develop or improve relationships to enhance that role? Also, what areas can we all support?” Board members considered when they should take a position on legislative bills.

Following a break, Jay Scott began the presentation on the next round of Individual Plan of Study (IPS) activity, noting that the work surrounding an IPS will leverage the other vision outcomes. Jeff MacLeod with Career Cruising, the state preferred IPS vendor, said currently 180 school districts are using Career Cruising. He demonstrated such features as career matchmaker, resume builder and course planner. He also talked about the data integration with various school software systems.
Next, Travis Riebel and Shirley Yoder from Hutchinson described how USD 308 and the Career and Technical Education Academy are utilizing the Career Cruising model. The IPS process starts there in sixth grade. They showed a sample student portfolio and talked about what they’ve learned during the implementation process. Board members had the opportunity to ask questions throughout the presentations.

The work session concluded at 1 p.m.
KANSAS STATE BOARD OF EDUCATION
Meeting Minutes
January 10, 2017

SWEARING-IN CEREMONY AND RECEPTION
The swearing-in ceremony for new State Board member Ann Mah (District 4) and re-elected members
Deena Horst (District 6), Kathy Busch (District 8) and Jim McNiece (District 10) occurred in the Board
Room prior to the start of the January meeting. Re-elected member Steve Roberts (District 2) was
sworn in Monday, Jan. 9, in Johnson County by Judge Kevin Moriarty. Those administering the Oath of
Office on Tuesday were Lt. Governor Jeff Colyer and Kansas Supreme Court Justice Lawton Nuss.
Guests and KSDE staff attended a reception honoring those serving another four-year term on the
State Board of Education.

CALL TO ORDER
Chairman Jim McNiece called the monthly meeting of the State Board of Education to order at 10 a.m.
Tuesday, Jan. 10, 2017, in the Board Room at the Landon State Office Building, 900 SW Jackson St.,
Topeka, Kansas. He welcomed new Board member Ann Mah, as well as staff and students in attend-
ance from Baker University.

ROLL CALL
The following Board members were present:
John Bacon    Deena Horst    Jim Porter
Kathy Busch   Ann Mah       Steve Roberts
Sally Cauble  Jim McNiece   Janet Waugh

Member Ken Willard was absent.

STATE BOARD MISSION STATEMENT, MOMENT OF SILENCE AND PLEDGE OF ALLEGIANCE
Chairman McNiece read both the Board’s Mission Statement and Kansans CAN Vision Statement. He
then asked for a moment of silence after which the Pledge of Allegiance was recited.

APPROVAL OF AMENDED AGENDA
Mrs. Busch moved to remove Item 18 c. (Act on recommendations of the Professional Practices Com-
misson-Breach of Contract) from the agenda for future action. Mrs. Horst seconded. Motion carried
9-0. The vote to accept the amended agenda was 8-0-1 with Mr. Roberts abstaining.

APPROVAL OF THE DECEMBER MEETING MINUTES
Mrs. Horst moved to approve the minutes of the December Board meeting. Mrs. Busch seconded.
Motion carried 9-0.

BOARD REORGANIZATION
Reorganization of the Kansas State Board of Education occurs every two years, which coincides with
the election and/or re-election of Board members. Mr. McNiece stated he was privileged to have
served as Chairman the past two years and expressed appreciation to Commissioner Watson and
KSDE staff for their cooperation. The following action was taken during reorganization for 2017-2019:

ELECTION OF BOARD CHAIRMAN
Mrs. Waugh moved to nominate Jim Porter as Chairman. Mrs. Busch seconded. There were no other
nominations. Motion carried 8-1 with Mr. Bacon in opposition. Mr. Porter accepted, then assumed
leadership of the meeting.

1/10/2017
A.M. Session
(00:00:07)
ELECTION OF VICE CHAIRMAN
Mrs. Cauble moved to nominate Kathy Busch as Vice Chairman. Mr. McNiece seconded. There were no other nominations. Motion carried 7-2 with Mr. Bacon and Mr. Roberts in opposition. Mrs. Busch accepted the position, then assumed the designated Vice Chairman’s seat at the Board table.

Board members proceeded to select or confirm their preferred places at the Board table based on seniority.

ELECTION OF LEGISLATIVE COORDINATOR AND ASSISTANT LEGISLATIVE COORDINATOR
Mrs. Busch moved to nominate Jim McNiece as the Board’s Legislative Coordinator. Mrs. Waugh seconded. Motion carried 8-1 with Mr. Bacon in opposition. Next, Mr. McNiece moved to nominate Deena Horst as Assistant Legislative Coordinator. Mrs. Busch seconded. Motion carried 7-2 with Mr. Bacon and Mr. Roberts in opposition.

ELECTION OF BOARD MEMBERS TO POLICY COMMITTEE
Reorganization continued with the election of three Board members to serve on the Policy Committee. Mrs. Busch moved to nominate Janet Waugh for the first opening. Mr. McNiece seconded. Motion carried 9-0. For the second opening, Mrs. Cauble moved to nominate Ann Mah. Mrs. Horst seconded. Motion carried 9-0. Mr. McNiece moved to nominate Steve Roberts for the final position on the Policy Committee. Mrs. Busch seconded. Motion carried 9-0.

ELECTION OF BOARD MEMBERS TO COALITION OF INNOVATIVE SCHOOL DISTRICTS
Mrs. Busch moved to nominate Deena Horst to represent the State Board on the Coalition of Innovative School Districts. Mr. McNiece seconded. Motion carried 9-0. Next, Mrs. Cauble moved to nominate Jim McNiece as the second representative on the Coalition. Mrs. Busch seconded. Motion carried 9-0.

STATUS OF OTHER ELECTED POSITIONS
Board-elected positions on the Kansas State High School Activities Association’s Board of Directors and Executive Board are current until June 30 so action was not required at this time.

CITIZENS’ OPEN FORUM
Chairman Porter declared the Citizens’ Forum open at 10:19 a.m., noting that the forum would remain open until 10:30 a.m. Speakers and their topics were: Kirk Fast, Ozawkie — Rose Standards, civics/citizenry, separating reliable vs. non-reliable information; John Richard Schrock, Emporia — new national accreditation standards for teacher preparation programs; Verneda Edwards, Kansas Association of Health Physical Education Recreation and Dance — inclusion of physical education in the Every Student Succeeds Act. Chairman Porter declared the Citizens’ Forum closed at 10:37 a.m.

ADOPTION OF RESOLUTION FOR 2017 BOARD MEETING DATES
Mr. McNiece moved to adopt the Resolution as presented establishing the 2017 calendar of Board meeting dates, time and location for the Kansas State Board of Education. Mrs. Horst seconded. Motion carried 9-0. The signed resolution is provided as an attachment to the minutes.

APPOINTMENT OF BOARD ATTORNEY AND BOARD SECRETARY
Mr. McNiece moved to approve the designation of Mark Ferguson of Gates Shields Ferguson Hammond, P.A., Overland Park, as the State Board Attorney. Mrs. Busch seconded. Motion carried 8-1 with Mr. Bacon in opposition. Next, Mrs. Cauble moved to approve the designation of Peggy Hill as State Board Secretary. Mrs. Horst seconded. Motion carried 9-0.

BREAK
Board members took a 10-minute break at 10:40 a.m.
REVIEW OF APPOINTMENTS TO BE MADE BY CHAIRMAN AND COMMISSIONER

During reorganization, memberships on State Board committees become vacant as per Board Policy. Chairman Porter reviewed the list of committee appointments to be made by either the Chairman or Commissioner. Committee descriptions were provided to Board members in their packets. Each member was asked to complete a preference sheet indicating which committees he or she was willing to serve on. Assignments would be announced at Wednesday’s meeting.

COMMISSIONER’S REPORT

Commissioner Randy Watson gave an update on the hiring timeline for selecting a new superintendent for the Kansas State School for the Deaf and Kansas State School for the Blind. Current Superintendent Madeleine Burkindine will retire in June. Two Board members will be named to the selection team to review applications, interview candidates and present a recommendation to the State Board. Mr. Bacon requested data to support the decision to hire one superintendent for the two campuses instead of an administrator for each school. Dr. Watson continued his report with:

- information on aligning KSDE’s work with the Kansans Can vision;
- activities of the new legislative session, including his Jan. 19 presentations to the House and Senate Education committees;
- reminders that the Kansans Can vision originated from two sources — Kansans’ input about creating a change in school culture and from job market research on economic drivers in the state.

UPDATE ON REVIEW OF MATHEMATICS STANDARDS

Education Program Consultants Melissa Fast and Sara Schafer explained that the committee is comprised of three groups (writing, review and ad hoc) tasked with updating the Kansas math standards. The committees have been meeting in person and virtually over several months. Mrs. Fast summarized the general changes proposed as groups target the grade bands of K-5, 6-8 and 9-12. Using the standards as a resource was emphasized, with the inclusion of tables, helpful videos and concrete examples of math practices within each grade. Regional “town hall” sessions will be conducted beginning in February to explain the updates and gain public input. Board members commented on the need to address individual student’s needs, be flexible with the standards at each grade level, involve the service centers in messaging, and offer meeting options in western and north central Kansas.

Chairman Porter recessed the meeting for lunch at 12:09 p.m.

RECEIVE SPECIAL EDUCATION ADVISORY COUNCIL ANNUAL REPORT

At 1:30 p.m., Chairman Porter reconvened the meeting. KSDE Director Colleen Riley and Dr. Marvin Miller, Chair of the Special Education Advisory Council, gave opening remarks. Council members introduced themselves and named the areas they represent. Then Past Chair Dr. Matthew Ramsey highlighted activities of the previous year such as establishing a new permanent voting position for a member representing students with a disability. In addition, the Council addressed issues related to Emergency Safety Interventions, supported Senate Bill 323 on language acquisition/assessment, and contributed to the Blue Ribbon Task Force on Teacher Vacancy and Supply. The printed 2015-16 SEAC Annual Report was provided to the Board. SEAC members voluntarily meet to study issues and advise KSDE’s Early Childhood, Special Education and Title Services team as well as the State Board of Education on matters of concern regarding special education. There was discussion about shortages of early childhood special education teachers, counselors and school psychologists.

RECEIVE KANSAS EDUCATOR PREPARATION PROGRAM STANDARDS FOR ELEMENTARY EDUCATION UNIFIED K-6

Dr. Sally Roberts presented the final draft of educator preparation content program standards that would be used in training teacher candidates interested in earning an Elementary Education Unified K-6 license. Dr. Roberts from the University of Kansas chairs the 12-member committee developing
the standards. The intent of this license is to prepare teacher candidates to work with K-6 grade learners with and without special needs. There were questions about the length of time to complete the program, training of para-educators, and creation of a similar teacher preparation program for the secondary level. The public comment period is now open. Approval of the standards for Elementary Education Unified K-6 is expected at the February meeting.

**ACTION ON RECOMMENDATIONS OF THE PROFESSIONAL PRACTICES COMMISSION**

Linda Sieck, Chair of the Professional Practices Commission, brought forth three cases that the PPC recommended for licensure approval. Mrs. Cauble moved to adopt the findings of the PPC and its recommendations that the licensure applications of Tyler Masters, Lois Lervold and Joseph Hamer be approved. Mr. McNiece seconded. Motion carried 9-0.

Ms. Sieck then presented the next set of cases. Mrs. Horst inquired about public censure as a form of discipline. Mrs. Horst moved to adopt the findings of the PPC and take the following actions: publicly censure Melisha Colon, revoke the licenses of Ansel Barngrover and Steven Young, and deny the application of Karen Vondemkamp. Mr. Roberts seconded. Motion carried 9-0.

The PPC case of Madison Beckman was removed from the agenda earlier in the day for future action.

**RECOGNITION OF THE 2016 NATIONAL BLUE RIBBON SCHOOLS**

Deputy Commissioner Dale Dennis welcomed administrators from the four schools selected as 2016 Kansas Blue Ribbon Schools. Those speaking to the Board were Jess Herbig, principal at Challenger Intermediate School, USD 265 Goddard; Gary Wheeler, principal at Chanute Elementary, USD 413 Chanute; Tom Schwartz, principal at McKinley Intermediate Elementary, USD 435 Abilene; and Ben Boothe, Director of Secondary Education at Wheatridge Middle School, USD 231 Gardner Edgerton.

Each highlighted factors that aided in raising student achievement. Specific concepts noted were: relationship building with students, creation of a professional learning community, positive behavior interventions and modeling respect.

The Board took a break from 2:35 to 2:50 p.m.

**REPORT ON WORK OF THE TEACHER VACANCY AND SUPPLY COMMITTEE**

Dr. Scott Myers, Director of Teacher Licensure and Accreditation, shared the origins of the Teacher Vacancy and Supply Committee (TVSC), which sprung from the Blue Ribbon Task Force on Teacher Vacancy and Supply. The Task Force made 65 recommendations, covering immediate, intermediate and long-term needs. The newly formed TVSC divided these into eight areas of concentration. Dr. Laurie Curtis from Kansas State University and Deb Ayers-Geist from Turner USD 202 co-chair the committee. They described improvements to teacher-mentoring programs as one of the first areas to be addressed. Among the suggestions are to begin mentoring at the start of the school year, make the program mentee-driven, and allow for more observation opportunities. During discussion, it was suggested to research other states’ mentoring programs and to identify actions the State Board could be taking. Other members asked for more specifics and quicker action. The TVSC will be reporting regularly to the State Board.

**LEGISLATIVE MATTERS**

In his Legislative Report, just a day after the 2017 session began, Deputy Commissioner Dale Dennis provided membership rosters of standing committees within the House and Senate. He also noted upcoming committee meetings of interest and the scheduling of monthly legislative conference calls with Board members. There was also discussion about the KPERS surcharge and its impact on school employees working after retirement. Lastly, Mr. Dennis reminded the Board about attending the Governor’s State of the State Address that evening.
CONSENT AGENDA
Mrs. Horst moved to approve the consent agenda. Mrs. Cauble seconded. Motion carried 8-0-1 with Mr. Roberts abstaining. In the Consent Agenda, the Board:

- received the monthly Personnel Report for December.
- confirmed the unclassified personnel appointments of Margaret Boggs as Program Consultant on the Child Nutrition and Wellness team, effective Nov. 29, 2016, at an annual salary of $37,440; Paula Branizor as Program Consultant on the Teacher Licensure and Accreditation team, effective Nov. 29, 2016, at an annual salary of $43,680; and Melissa Ostermeyer as Public Service Administrator on the School Finance team, effective Nov. 20, 2016, at an annual salary of $34,444.80.
- accepted the retirement notice of Madeleine Burkindine as Superintendent of Kansas State School for the Blind and Kansas State School for the Deaf, effective June 30, 2017.
- accepted the following recommendations for licensure waivers valid for one school year: Early Childhood Special Ed. -- May Brown, USD 373; Mindy Carlson, USD 497; Heather Albers, Roxanna Vicars, D0605. English as a Second Language -- Victoria Arellano, Angelica Tesch, Liberty Aquino e Castro, USD 259. General Science -- Erin Cooke, USD 259. Gifted -- Laurel Nichols, USD 259; Bill Rhiley, Nancy Diepenbrock, D0605. High Incidence Special Ed. -- Christa Chastain, Tessa West, Hannah Abernathy, USD 200; Alyssa Rucker, USD 207; Anthony Kavalauskas, Ann Walker, Ashley Sanchez, USD 259; Stephanie Dowell, USD 282; Katy Riley, USD 383; Mary Hill, USD 469; Elizabeth Cobb, D0603; Melissa Hittle, Katrina Riner, Diana Sanpaka, Andrew Gwennap, Brandt Rogers, Cathy Cox, Emmanuel Adigun, Jake Rourk, Lucas Bauman, Matthew Lawson, Misti Kuhn, Patricia Amaro, Regina Fischer, Troy Piper, Venus Covey, D0605; Caitlyn Olsen, Z0032. High Incidence Special Ed. -- Extension on the number of days on an Emergency Sub License -- Autumn Chisholm, USD 410. Library Media Specialist -- Benjamin Smith, Cynthia Rogers, USD 259. Low Incidence Special Ed. -- Bethany Almloff, USD 229; Kather Wilson, Margaret Gusino, Arleen Sponsel, Christina Allen, USD 259; Diana Habig, USD 364; Tamera Belew, USD 480; Marla Stark, Stephanie Grippin, D0605; Christopher August, D0637. Math -- Extension on the number of days on an Emergency Sub License -- Sherri Jacobson, USD 330.
- accepted the recommendations of the Licensure Review Committee as follows: Approved cases — 3111 Kristopher Houseberg (secondary 6-12 social studies), 3112 Jessica Claerhout, 3117 Cale Urban (middle level 5-8 mathematics), 3121 Heidi Clouse, 3123 Salvador Cruz, 3124 Jaret Wohler, 3125 Lea Finfera, 3126 Lindsey Hill, 3127 Chelsea Millar, 3128 Benjamin Smith (PreK-12 art), 3130 Megan Gibler, 3131 Rachel Mainelli.
- issued Calendar Year 2017 licenses to the following commercial driver training schools: Premier Driving School of Derby, Premier Driving School of Hutchinson, and Suburban Driving Academy, Kansas City.
- authorized USD 250, Pittsburg, Crawford County, to hold an election on the question of issuing bonds in excess of the district’s general bond debt limitation.
- authorized USD 250, Pittsburg, Crawford County, to receive capital improvement (bond and interest) state aid as authorized by law.

RECESS
At 3:47 p.m., Chairman Porter recessed Tuesday’s Board meeting until 9 a.m. Wednesday. Board members attended Governor Brownback’s State of the State Address Tuesday evening.

Jim Porter, Chairman
Peggy Hill, Secretary
KANSAS STATE BOARD OF EDUCATION
Meeting Minutes
January 11, 2017

PRE-MEETING ACTIVITY—SEAC BREAKFAST
The Special Education Advisory Council (SEAC) hosted its annual Get-Acquainted Breakfast for Board members in Room 509 of Landon State Office Building prior to the start of the meeting.

CALL TO ORDER
Chairman Jim Porter called the Wednesday meeting of the State Board of Education to order at 9 a.m. on Jan. 11, 2017 in the Board Room at the Landon State Office Building, 900 SW Jackson St., Topeka, Kansas.

ROLL CALL
The following Board members were present:
John Bacon             Deena Horst             Jim Porter
Kathy Busch            Ann Mah               Steve Roberts
Sally Cauble           Jim McNiece           Janet Waugh

Member Ken Willard was absent.

APPROVAL OF AGENDA
Mr. McNiece moved to approve the day’s agenda. Mr. Roberts seconded. Motion carried 9-0.

CAREER TECHNICAL STUDENT ORGANIZATION REPORTS AND OFFICER PRESENTATIONS
In observance of Citizenship Day, Assistant Director Jay Scott announced that eight state officers representing the various Kansas Career and Technical Student Organizations would be speaking to the Board. State officer remarks focused on the significance of their organization’s emblems, importance of servant leadership, learning life skills, opportunities outside of the classroom, and the importance of job shadowing. A question and answer period followed their speeches.

INTRODUCTION OF NEW CAREER TECH STUDENT ORGANIZATION FOR EDUCATION
The addition of a new Career and Technical Student Organization for high school students interested in education was announced. The program, Educators Rising, would align with the current educator training pathway and provide the first steps for high school students interested in becoming teachers. With support from the national Educators Rising network, schools could form a chapter for high school juniors and seniors to explore teaching as a career. KSDE Education Program Consultant Gayla Randel, along with Cathy Mong of the Wichita Public Schools and Idalia Shuman of the Kansas National Education Association shared information and answered questions. Ms. Shuman will serve as the Educators Rising state coordinator.

PRESENTATION ON KANSAS ASSOCIATION FOR CONSERVATION AND ENVIRONMENTAL EDUCATION
Mrs. Waugh, who is the State Board liaison with the Kansas Association for Conservation and Environmental Education, introduced organization Executive Director Laura Downey. KACEE works in partnership with several state agencies to provide conservation education, professional development, promote a Kansas Green Schools Network, and offer learning opportunities for students outside of the classroom. Mrs. Downey gave an update on KACEE activities and shared examples of student projects, such as a pizza garden created by FFA students and preschoolers at Olpe. She also described the connection between KACEE’s work and the Kansans Can vision outcomes.
ANNOUNCEMENT OF COMMITTEE ASSIGNMENTS
Chairman Porter announced the selection of Board members to serve on the various committees with State Board representation. The chart of assignments is attached to the minutes.

BREAK

BOARD REPORTS & FUTURE AGENDA ITEMS
Policy Committee — Mrs. Waugh announced the Policy Committee would meet during lunch on Tuesday, Feb. 14.

Communications Committee — Mrs. Cauble asked Denise Kahler to describe the theme and design for this year’s postcard series that would be delivered to legislators. Each week will highlight the vision and outcomes, with school success stories personalized for each State Board District.

Coalition of Innovative School Districts — The Coalition’s next meeting is Jan. 19. Mr. McNiece talked about the redesign of the Coalition.

ATTORNEY’S REPORT
Board Attorney Mark Ferguson noted that his written summary for the month would be combined with next month’s report.

OTHER BOARD MEMBER REPORTS
During individual Board member reports, Mr. McNiece will be traveling with the Lt. Governor to several high schools hearing about community service projects and publicizing a new Citizenship Award for students. He also gave the dates for NASBE’s legislative conference (March 19-21) and New Member Institute (June 8-10). Mrs. Busch met with organizers of the Educators Rising student organization. Mrs. Waugh polled members and determined there was interest in presenting Challenge Awards to schools like they did last year. She received an invitation to serve on the Board for the Kansas Alliance for the Arts in Education. There were no objections to her accepting. Mrs. Cauble visited Ness City High School and students’ Tiny House Project. Mrs. Horst attended legislative forums.

Requests for Future Agenda Items: Mrs. Cauble requested a presentation from Ness City High School students on their Tiny House Project; Mr. Porter requested a work session in February for extended discussion time on various topics, including a legislative agenda, evaluating speed of Board action on issues, and clarification of ideas; Mrs. Waugh would like a presentation on social media use in schools; Mr. Porter reported that the Civil Air Patrol would like to be on the March agenda.

BOARD MEMBER TRAVEL
Additions to the travel requests were: Mrs. Mah, Jan. 12 KASB Legislative reception, Feb. 10 KEEN awards luncheon; Mrs. Busch Jan. 19 Commissioner’s presentation to House and Senate Education Committees, Feb. 3 Teacher Vacancy and Supply Committee. Because of the changes in committee assignments, Mrs. Mah will attend the Kansas Workforce Summit Jan. 18 and 19 and the Career and Technical Education Conference Feb. 7 and 8 instead of Mrs. Cauble. Mrs. Busch moved to approve the travel requests and additions. Mr. Roberts seconded. Motion carried 9-0.

ADJOURNMENT
The business of the Board concluded at 11:20 a.m. Afterwards, Board members were guests of the Career Technical Student Organizations at the Capitol Plaza for the annual luncheon. Mr. Porter joined Commissioner Watson for the recognition lunch for the Superintendent of the Year at KASB.

Jim Porter, Chairman

Peggy Hill, Secretary
RESOLUTION

Be It Resolved that:

The Kansas State Board of Education will conduct its regular meeting beginning at 10 a.m. on the second Tuesday and 9 a.m. on the second Wednesday of each month with the exception of April and October (2017) when said meetings will be held on the third Tuesday and Wednesday of the month. The location is the Landon State Office Building (LSOB), 900 SW Jackson, Ste 102, Topeka, Kansas, unless otherwise noted. Therefore, the Kansas State Board of Education regular meetings and legislative conference calls shall comply with the following schedule:

<table>
<thead>
<tr>
<th>Date 2017</th>
<th>Meeting</th>
<th>Location</th>
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</thead>
<tbody>
<tr>
<td>January 10-11</td>
<td>Regular Board Meeting</td>
<td>LSOB, Topeka</td>
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<tr>
<td>January 27</td>
<td>Legislative Conference Call - 4 p.m.</td>
<td>LSOB, Topeka</td>
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<tr>
<td>February 14-15</td>
<td>Regular Board Meeting</td>
<td>LSOB, Topeka</td>
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<tr>
<td>February 24</td>
<td>Legislative Conference Call – 4 p.m.</td>
<td>LSOB, Topeka</td>
</tr>
<tr>
<td>March 14-15</td>
<td>Regular Board Meeting</td>
<td>LSOB, Topeka</td>
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<tr>
<td>March 31</td>
<td>Legislative Conference Call – 4 p.m.</td>
<td>LSOB, Topeka</td>
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<tr>
<td>April 18</td>
<td>Regular Board Meeting</td>
<td>LSOB, Topeka</td>
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<tr>
<td>April 19</td>
<td>Annual visit KS School for Deaf / School for Blind</td>
<td>Olathe / Kansas City</td>
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<tr>
<td>May 9-10</td>
<td>Regular Board Meeting</td>
<td>LSOB, Topeka</td>
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<tr>
<td>June 13-14</td>
<td>Regular Board Meeting</td>
<td>LSOB, Topeka</td>
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<tr>
<td>July 11-12</td>
<td>Regular Board Meeting</td>
<td>LSOB, Topeka</td>
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<tr>
<td>August 8-9</td>
<td>Regular Board Meeting</td>
<td>LSOB, Topeka</td>
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<tr>
<td>September 12-13</td>
<td>Regular Board Meeting</td>
<td>LSOB, Topeka</td>
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<tr>
<td>October 17-18</td>
<td>Regular Board Meeting</td>
<td>LSOB, Topeka</td>
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<tr>
<td>November 14-15</td>
<td>Regular Board Meeting</td>
<td>LSOB, Topeka</td>
</tr>
<tr>
<td>December 12-13</td>
<td>Regular Board Meeting</td>
<td>LSOB, Topeka</td>
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</tbody>
</table>

If the regular meeting date occurs on a legal holiday or on a holiday specified by the Board, such regular meeting shall be held the following day, commencing at the same hour.

CERTIFICATE
This is to certify that the above resolution was duly adopted by the Kansas State Board of Education on the 10th day of January, 2017.

Peggy Hill
Secretary, Kansas State Board of Education
To: Kansas State Board of Education

Subject: Citizens’ Open Forum

Board Goals: Develop active communication and partnerships with families, communities, business stakeholders, constituents and policy partners

During the Citizens’ Open Forum, the State Board of Education provides an opportunity for citizens to share views about topics of interest or issues currently being considered by the State Board.

Each speaker shall be allowed to speak for three minutes. Any person wishing to speak shall complete a presenter’s card, giving his or her name and address, and the name of any group he or she is representing. (Ref. Board Policy 1012)

If written material is submitted, 13 copies should be provided.
Item Title:

Act on Kansas educator preparation program standards for Chemistry 6-12, Physics 6-12 and Foreign Language PreK-12

Board Goals:

Provide an effective educator in every classroom

Recommended Motion:

It is moved that the Kansas State Board of Education approve the new educator preparation program standards for Chemistry (6-12), Physics (6-12), and Foreign Language (PreK-12).

Explanation of Situation Requiring Action:

Educator Preparation Program Standards establish program approval requirements to ensure that preparation programs in Kansas provide educator candidates with the opportunity to learn the knowledge and skills educators need for today's learning context. The Institutions of Higher Education (IHEs) utilize program standards to develop their preparation programs and submit them for approval, and for continuous monitoring and improvement of their programs. The standards also help to establish professional learning requirements for licensure renewal.

Standards revision work groups are completing the task of revising all program standards to ensure they reflect new knowledge and skills educators need for effectiveness in today's world. In February, completed sets of revised standards were presented for review: Chemistry (6-12), Physics (6-12) and Foreign Language (PreK-12). Approval of the standards is requested. Once approved, the IHEs have access to develop new programs around the standards or to revise their current programs to align to the updated standards.

The proposed standards, the previous standards and a crosswalk were provided at the February 2017 meeting. Staff and representatives from the respective standards revision committees will be available to answer questions.
# Crosswalk: Previous versus New Chemistry 6-12 Standards

## General Information about this Revision:

- The structure has changed to include Professional Skills indicators rather than the previous Performance indicators.
- The previous standards only had indicators in each standard while the new standards are broken down by Functions and then have the two types of indicators within each Function.
- Overall focus of standards on teaching and learning strategies in addition to overall content knowledge.

## Standard [1] Content Pedagogy

<table>
<thead>
<tr>
<th>PREVIOUS STANDARDS</th>
<th>NEW STANDARDS</th>
<th>WHAT CHANGED?</th>
</tr>
</thead>
</table>
| **Standard #4:** The teacher of chemistry demonstrates an understanding of the nature of inquiry and the ability necessary to help students do scientific inquiry. | Effective science teachers understand how students learn and develop science concepts and practices. They incorporate disciplinary core ideas, scientific and engineering practices, and crosscutting concepts into instruction. | **Additions to:**

  - Content Knowledge indicators:
    - Designing and conducting inquiry-based open-ended science investigations
    - Learning is influenced by cultural and environmental differences
    - Understanding of the age-appropriate needs and practices of students and diverse learning styles
    - Understanding of formative and summative assessment strategies
  
  - Professional Skills indicators:
    - Lessons demonstrate knowledge of the practices of science and engineering
    - Lessons involve student collection and interpretation of data, communication of concepts, and applications of science-specific technology
    - Information about student’s culture is used to understand development and learning
    - Able to identify common misconceptions and naïve understandings; designs appropriate instruction to address these |

| **Standard #7:** The teacher of chemistry demonstrates an understanding of the concepts and processes unifying science domains. |  |  |

| **Standard #9:** The teacher of chemistry enacts a science curriculum that integrates content within the sciences and among other disciplines. |  |  |
# Standard [2] Learning Environment

<table>
<thead>
<tr>
<th>PREVIOUS STANDARDS</th>
<th>NEW STANDARDS</th>
<th>WHAT CHANGED?</th>
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</thead>
</table>
| **Standard #6** The teacher of chemistry demonstrates an understanding of science as a human endeavor, of the nature of science, and of science from historical perspectives. | Teachers work with students and others to create and manage environments that support learning. | Additions to:  
**Content Knowledge indicators:**  
- Understands rigor, respect, and responsibility  
- Understands the influence of teacher feedback  
- Understands how learner diversity can affect communication  
- Understands how learning occurs and how to use instructional strategies that promote learning  
- Understands relationships among motivation, engagement, and self-efficacy  
**Professional Skills indicators:**  
- Sets and articulates appropriate goals  
- Manages environment to make learning experiences appropriately challenging  
- Plans fair and equitable assessment strategies  
- Promotes celebration of learning  
- Communicates verbally and nonverbally in ways that demonstrate respect for and responsiveness to multiple perspectives  
- Helps learners work productively and cooperatively  
- Develops plans that reflect the nature and social context of science and inquiry  
- Uses a variety of strategies and selects appropriate teaching and learning activities |
| **Standard #8** The teacher of chemistry demonstrates an understanding of and an ability to teach science effectively. |  |  |
| **Standard #10:** The teacher of chemistry understands how to relate science to the daily lives and interests of students and to a larger framework of human endeavor and understanding. |  |  |

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# Standard [3] Safety

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<th>PREVIOUS STANDARDS</th>
<th>NEW STANDARDS</th>
<th>WHAT CHANGED?</th>
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</thead>
</table>
| **Standard #12:** The teacher of chemistry designs and manages safe and supportive learning environments. | Effective teachers of science demonstrate and implement safety procedures, material safety practices, and the ethical treatment and use of living organisms (appropriate to their area of licensure). | Additions to:  
**Content Knowledge indicators:**  
- Understands safety considerations affecting the purchase, storage, maintenance, and disposal of material  
- Understands proper techniques and precautions for controlling access to materials |

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### Standard [4] Impact on Student Learning

<table>
<thead>
<tr>
<th>PREVIOUS STANDARDS</th>
<th>NEW STANDARDS</th>
<th>WHAT CHANGED?</th>
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</thead>
<tbody>
<tr>
<td>Standard #7: The teacher of chemistry demonstrates an understanding of the concepts and processes unifying science domains.</td>
<td>Science teachers provide evidence that students’ understanding of disciplinary core ideas, science and engineering practices, and crosscutting concepts have increased in sophistication as a result of instruction. Candidates provide evidence representative of the entire population they teach.</td>
<td>Additions to:</td>
</tr>
<tr>
<td>Standard #8: The teacher of chemistry demonstrates an understanding of and an ability to teach science effectively.</td>
<td></td>
<td>Content Knowledge indicators:</td>
</tr>
<tr>
<td>Standard #10: The teacher of chemistry understands how to relate science to the daily lives and interests of students and to a larger framework of human endeavor and understanding.</td>
<td></td>
<td>Professional Skills indicators:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Critically analyzes the quality of evidence supporting scientific claims</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Demonstrates that students are able to critically analyze the quality of evidence supporting scientific claims</td>
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<td></td>
<td></td>
<td>● Demonstrates that students are able to understand the distinction between science and nonscience</td>
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<td>● Reflects on formative and summative assessments, and adjusts instruction appropriately</td>
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### Standard [5] Professional Knowledge and Skills

<table>
<thead>
<tr>
<th>PREVIOUS STANDARDS</th>
<th>NEW STANDARDS</th>
<th>WHAT CHANGED?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard #13: The teacher of chemistry improves teaching through ongoing professional practice.</td>
<td>Effective science teachers are aware of and engage in professional development opportunities to continually improve their knowledge and understanding of science content and pedagogy. They conduct themselves as part of the science education community.</td>
<td>Additions to:</td>
</tr>
<tr>
<td></td>
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<td>Professional Skills indicators:</td>
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<tr>
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<td></td>
<td>● Engages in professional development opportunities such as conferences, research opportunities, projects within the community, and/or social media</td>
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<table>
<thead>
<tr>
<th>PREVIOUS STANDARDS</th>
<th>NEW STANDARDS</th>
<th>WHAT CHANGED?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard #5: The teacher of chemistry demonstrates an understanding of the basic relationships between science and technology.</td>
<td>The teacher demonstrates an understanding of concepts and practices of engineering, technology, and the applications of science in developing instruction for students.</td>
<td>Additions to:&lt;br&gt;Content Knowledge indicators:&lt;br&gt;● Understands the interdependence and influence of science, engineering, and technology&lt;br&gt;● Defines and delimits engineering problems with precision, and specifies intended goals&lt;br&gt;Professional Skills indicators:&lt;br&gt;● Develops and implements lessons in which students use engineering design principles in applications appropriate to their content area&lt;br&gt;● Incorporates into instructions examples of the interdependence and influences of science, engineering, and technology on society and the environment</td>
</tr>
<tr>
<td>Standard #11: The teacher of chemistry assesses students’ educational progress through a variety of methods.</td>
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<thead>
<tr>
<th>PREVIOUS STANDARDS</th>
<th>NEW STANDARDS</th>
<th>WHAT CHANGED?</th>
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</thead>
<tbody>
<tr>
<td>Standard #1 The teacher of chemistry demonstrates an understanding of the core theories, laws, principles, and concepts concerning the structure of matter.</td>
<td>Effective teachers understand the structure of matter on the atomic and macroscopic levels, and the relationship between structure and properties of matter, engaging students in using the periodic table as a model to predict the properties of elements based on the patterns of valence electrons as well as facilitating student investigations to gather evidence to compare trends in the periodic table and knowledge of the patterns of chemical properties.</td>
<td>Additions to:&lt;br&gt;Content Knowledge indicators:&lt;br&gt;● Understands the core concepts of organic molecules but decreases focus on the structure, properties, and characteristic reactions as well as stereoisomerism and its applications to organic molecules&lt;br&gt;Professional Skills indicators:&lt;br&gt;● Engages students in investigating the structure of matter, demonstrating atomic theory and periodic trends&lt;br&gt;● Engages students in constructing and describing models using VSEPR theory</td>
</tr>
<tr>
<td>Standard #2 The teacher of chemistry demonstrates an understanding of the core theories, laws, principles, and concepts concerning the states and properties of matter.</td>
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### Standard [8] Matter and Its Interactions

<table>
<thead>
<tr>
<th>PREVIOUS STANDARDS</th>
<th>NEW STANDARDS</th>
<th>WHAT CHANGED?</th>
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</table>
| Standard #2 The teacher of chemistry demonstrates an understanding of the core theories, laws, principles, and concepts concerning the states and properties of matter. | Effective teachers will engage students in developing models that illustrate the release or absorption of energy from a chemical reaction system as well as investigating reaction rates and equilibrium states. | Additions to: Professional Skills indicators:  
• Engages students in investigating colligative properties and applying kinetic theory in laboratory situations  
• Engages students in identifying different chemical reactions based on experimentation (including acid-base, combustion, precipitation, and oxidation-reduction)  
• Engages students in writing balanced molecular, ionic and net ionic equations |
| Standard #3 The teacher of chemistry demonstrates an understanding of the theories, laws, principles, and concepts concerning chemical reactions. |                                                                                                       |                                                                                                   |
PROPOSED
Kansas Educator Preparation Program Standards for Chemistry
Grades 6-12

**Learner(s) is defined as children including those with disabilities or exceptionalities, who are gifted, and students who represent diversity based on ethnicity, race, socioeconomic status, gender, language, religion, and geographic origin.**

Standard 1: Content Pedagogy: Effective science teachers understand how students learn and develop science concepts and practices. They incorporate disciplinary core ideas, scientific and engineering practices, and crosscutting concepts into instruction.

<table>
<thead>
<tr>
<th>Function 1: The teacher plans multiple lessons using a variety of inquiry approaches incorporating science and engineering practices.</th>
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</thead>
<tbody>
<tr>
<td><strong>Content Knowledge</strong></td>
<td><strong>Professional Skills</strong></td>
</tr>
<tr>
<td>1.1.1 CK The teacher knows how to locate resources, design and conduct inquiry-based open-ended science investigations, interpret findings, communicate results, and make judgments based on evidence.</td>
<td>1.1.2 PS The teacher supports student learning through appropriate curricular and instructional experiences linked to the standards</td>
</tr>
<tr>
<td>1.1.3 PS The teacher is able to develop lessons for students that demonstrate knowledge of the practices of science and engineering by questioning, defining problems, modeling, investigating, and analyzing evidence in order to construct explanations and alternative explanations.</td>
<td>1.1.4 PS The teacher is able to develop lessons in which students collect and interpret data, develop and communicate concepts, and understand scientific processes, relationships and natural patterns from empirical experiences. Applications of science-specific technology are included in the lessons when appropriate.</td>
</tr>
</tbody>
</table>

Function 2: The teacher demonstrates knowledge and understanding of how diverse students learn science.

<table>
<thead>
<tr>
<th><strong>Content Knowledge</strong></th>
<th><strong>Professional Skills</strong></th>
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</thead>
<tbody>
<tr>
<td>1.2.1 CK The teacher knows learning is influenced by cultural and environmental differences of the student and family.</td>
<td>1.2.4 PS The teacher gains and values information about the family’s culture and environment and uses it to understand individual development and learning.</td>
</tr>
<tr>
<td>1.2.2 CK The teacher understands developmentally and chronologically age-appropriate needs and practices of students.</td>
<td>1.2.5 PS The teacher promotes developmentally and chronologically age-appropriate educational experiences to meet the learning abilities, strengths, needs, and preferences of students.</td>
</tr>
<tr>
<td>1.2.3 CK The teacher understands diverse learning styles.</td>
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</tbody>
</table>

Function 3: The teacher designs instruction and assessment strategies that confront and address naïve concepts/preconceptions.
<table>
<thead>
<tr>
<th>Content Knowledge</th>
<th>Professional Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.3.1 CK The teacher knows learning is influenced by cultural and environmental differences of the student and family.</td>
<td>1.3.3 PS The teacher uses appropriate formal and informal evaluation/assessment instruments to identify learning needs of students.</td>
</tr>
<tr>
<td>1.3.2 CK The teacher understands formative and summative assessment and how they are used.</td>
<td>1.3.4 PS The teacher is able to identify common student misconceptions and naïve understandings, and design and implement appropriate instruction to address these.</td>
</tr>
</tbody>
</table>

**Standard 2: Learning Environments:** Teachers work with students and others to create and manage environments that support learning.

**Function 1: The teacher supports individual and group learning.**

<table>
<thead>
<tr>
<th>Content Knowledge</th>
<th>Professional Skills</th>
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<tbody>
<tr>
<td>2.1.1 CK The teacher understands the importance of rigor, respect, and responsibility for the learning environment.</td>
<td>2.1.3 PS The teacher sets and articulates appropriate goals that are consistent with knowledge of how students learn science.</td>
</tr>
<tr>
<td>2.1.2 CK The teacher understands how teacher feedback influences student learning.</td>
<td>2.1.4 PS The teacher sets goals that are aligned with state and other professional standards.</td>
</tr>
<tr>
<td>2.1.5 PS The teacher manages the environment to make learning experiences appropriately challenging.</td>
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</table>

**Function 2: The teacher encourages positive social interaction.**

<table>
<thead>
<tr>
<th>Content Knowledge</th>
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<tbody>
<tr>
<td>2.2.1 CK The teacher understands how learner diversity can affect communication and knows how to communicate effectively in differing environments.</td>
<td>2.2.3a PS The teacher plans fair and equitable assessment strategies to analyze student learning and to evaluate if the learning goals are met.</td>
</tr>
<tr>
<td></td>
<td>2.2.3b PS The teacher promotes celebration of learning by providing positive reinforcement and encouraging learners to present work demonstrating their learning and interacting with community members about their work.</td>
</tr>
<tr>
<td></td>
<td>2.2.3c PS The teacher communicates verbally and nonverbally, with families, communities, colleagues, and other professionals, in ways that demonstrate respect for and responsiveness to the cultural backgrounds and differing perspectives learners bring to the learning environment.</td>
</tr>
<tr>
<td></td>
<td>2.2.3d PS The teacher knows how to help learners work productively and cooperatively with each other to achieve learning goals.</td>
</tr>
<tr>
<td>2.2.2 CK The teacher understands how learning occurs, how learners construct knowledge, acquire skills, and develop disciplined thinking processes and knows how to use instructional strategies that promote student learning.</td>
<td>2.2.4a PS The teacher develops plans that reflect the nature and social context of science and inquiry.</td>
</tr>
</tbody>
</table>
2.2.4b PS The teacher creates developmentally appropriate instruction that takes into account individual learners' strengths, interests, and needs and that enables each learner to advance and accelerate his/her learning.

**Function 3: The teacher promotes active engagement in learning and self-motivation.**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>2.3.1 CK The teacher understands the relationships between motivation, engagement, and self-efficacy, and knows how to design learning experiences using strategies that build learner self-direction and ownership of learning.</td>
<td>2.3.3a PS The teacher shows the ability to use a variety of strategies that demonstrate the candidates' knowledge and understanding of how to select the appropriate teaching and learning activities, including laboratory or field settings and applicable instruments and technology.</td>
</tr>
<tr>
<td>2.3.2 CK The teacher creates learning environments where students have an opportunity to actively engage in the practices of science and engineering.</td>
<td>2.3.3b PS The teacher incorporates differentiated instruction strategies to engage students with diverse learning needs.</td>
</tr>
<tr>
<td>2.3.3c PS The teacher incorporates tools of language development into planning and instruction, including strategies for making content accessible to English language learners and for evaluating and supporting their development of English proficiency.</td>
<td>2.3.3c PS The teacher incorporates tools of language development into planning and instruction, including strategies for making content accessible to English language learners and for evaluating and supporting their development of English proficiency.</td>
</tr>
<tr>
<td>2.3.4a PS The teacher will develop lesson plans that include active inquiry lessons where students are collecting, analyzing and interpreting data.</td>
<td>2.3.4a PS The teacher will develop lesson plans that include active inquiry lessons where students are collecting, analyzing and interpreting data.</td>
</tr>
<tr>
<td>2.3.4b PS The teacher will develop lesson plans that allow students to engage in developing and using models, constructing explanations and designing solutions, engaging in argument from evidence, and evaluating and communicating information.</td>
<td>2.3.4b PS The teacher will develop lesson plans that allow students to engage in developing and using models, constructing explanations and designing solutions, engaging in argument from evidence, and evaluating and communicating information.</td>
</tr>
</tbody>
</table>

**Standard 3: Safety: Effective teachers of science demonstrate and implement safety procedures, material safety practices, and the ethical treatment and use of living organisms (appropriate to their area of licensure).**

**Function 1: The teacher implements safe and proper techniques for the preparation, storage, dispensing, supervision, and disposal of all materials.**

<table>
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<tbody>
<tr>
<td>3.1.1 CK The teacher understands safety considerations affecting the purchase, storage, maintenance, and disposal of materials such as minimizing quantities in ordering, tracking usage of materials and production of waste, and keeping current on inventory of materials.</td>
<td>3.1.3 PS The teacher understands, applies, and promotes the maintenance of a safe environment in accordance with the recommendations of the National Science Teachers Association.</td>
</tr>
<tr>
<td>3.1.2 CK The teacher understands proper techniques and precautions for controlling access</td>
<td>3.1.4 PS The teacher maintains an orderly environment, uses safe and appropriate storage of</td>
</tr>
</tbody>
</table>
to materials in the student laboratory including appropriate dispensing, supervision of materials, and handling of waste.

Function 2: The teacher designs and models activities to implement emergency procedures. The teacher understands the maintenance of safety equipment and follows policies and procedures that comply with established state and/or national guidelines. The teacher ensures safe science activities appropriate for the abilities of all students.

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<tbody>
<tr>
<td>3.2.1 CK The teacher understands appropriate emergency procedures and maintenance of safety equipment, policies and procedures that comply with established state and/or national guidelines.</td>
<td>3.2.3 PS The teacher designs and implements activities that demonstrate emergency procedures and the proper use of safety equipment in accordance with the recommendations of the National Science Teachers Association.</td>
</tr>
<tr>
<td>3.2.2 CK The teacher understands how students' developmental levels affect safety in classroom, laboratory and field environments, and considers this in designing activities to maintain a safe environment.</td>
<td>3.2.4 PS The teacher enforces safe science practices in activities appropriate to the abilities of all students.</td>
</tr>
</tbody>
</table>

Function 3: The teacher designs and implements activities that demonstrate ethical decision-making with respect to the treatment of living organisms in and out of the classroom. The teacher emphasizes safe, humane, and ethical treatment of animals and complies with the legal restrictions on the collection, keeping, use, and treatment of living organisms.

<table>
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<tbody>
<tr>
<td>3.3.1 CK The teacher understands the principles of ethical decision-making with respect to the treatment of living organisms in and out of the classroom.</td>
<td>3.3.4 PS The teacher designs and implements activities that demonstrate ethical decision-making with respect to the treatment of living organisms in and out of the classroom.</td>
</tr>
<tr>
<td>3.3.2 CK The teacher knows the legal restrictions on the collection, keeping, use, and treatment of living organisms.</td>
<td>3.3.5 PS The teacher complies with the legal restrictions on the collection, keeping, and use of living organisms.</td>
</tr>
<tr>
<td>3.3.3 CK The teacher is aware of hazards from exposure to allergens, toxins, and pathogens in the classroom, laboratory, or field environment.</td>
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</table>

Standard 4: Impact on Student Learning: Science teachers provide evidence that students’ understanding of disciplinary core ideas, science and engineering practices, and crosscutting concepts have increased in sophistication as a result of instruction. Candidates provide evidence representative of the entire population they teach.

Function 1: Collect, organize, analyze, and reflect on diagnostic, formative and summative evidence of student learning.

<table>
<thead>
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<tbody>
<tr>
<td>4.1.1 CK The teacher understands the various methodologies to assess and analyze student learning, and address misconceptions.</td>
<td>4.1.2 PS The teachers utilize knowledge of appropriate developmental levels within the classroom environment.</td>
</tr>
<tr>
<td>4.1.3 PS The teacher reflects on formative and summative assessments, and adjusts instruction appropriately.</td>
<td></td>
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</table>
Function 2: Provide data to show that students are able to distinguish science from nonscience, understand the evolution and practice of science as a human endeavor, and critically analyze the quality of evidence supporting scientific claims.

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>4.2.1 CK The teacher understands the distinction between science and nonscience, and can distinguish between the two.</td>
<td>4.2.4 PS The teacher demonstrates that students are able to understand the distinction between science and nonscience, and can distinguish between the two.</td>
</tr>
<tr>
<td>4.2.2 CK The teacher understands the history, development and practice of science as a human endeavor.</td>
<td>4.2.5 PS The teacher demonstrates that students are able to understand the history, development and practice of science as a human endeavor.</td>
</tr>
<tr>
<td>4.2.3 CK The teacher critically analyzes the quality of evidence supporting scientific claims.</td>
<td>4.2.6 PS The teacher demonstrates that students are able to critically analyze the quality of evidence supporting scientific claims.</td>
</tr>
</tbody>
</table>

Standard 5: Professional Knowledge and Skills: Effective science teachers are aware of and engage in professional development opportunities to continually improve their knowledge and understanding of science content and pedagogy. They conduct themselves as part of the science education community.

Function 1: The teacher engages in professional development opportunities in his/her content field such as talks, symposiums, research opportunities, projects within their community, and/or social media.

<table>
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<tbody>
<tr>
<td>5.1.1 CK The teacher demonstrates an awareness of professional organizations in science/education, and professional development available from these organizations.</td>
<td>5.1.2 PS The teacher engages in professional development opportunities such as conferences, research opportunities, projects within the community, and/or social media.</td>
</tr>
</tbody>
</table>

Standard 6: Engineering, Technology, and the Applications of Science: The teacher demonstrates an understanding of concepts and practices of engineering, technology, and the applications of science in developing instruction for students.

Function 1: The teacher incorporates engineering design in instruction to solve problems. Engineering design includes the iterative processes of defining problems, developing solutions, and optimizing solutions.

<table>
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<tr>
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<tbody>
<tr>
<td>6.1.1 CK The teacher can define and delimit engineering problems with precision, and specify the goals intended to be reached.</td>
<td>6.1.4 PS The teacher develops and implements lessons in which students use engineering design principles (define the problem, develop solutions, and optimize solutions) in applications appropriate to their content area.</td>
</tr>
<tr>
<td>6.1.2 CK The teacher can develop possible solutions for a defined problem.</td>
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</tr>
<tr>
<td>6.1.3 CK The teacher can systematically evaluate alternative solutions to engineering problems, analyzing data from tests of</td>
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</table>
different solutions, and combining the best ideas into an improved solution.

**Function 2: The teacher makes authentic connections among engineering, technology, science, and society.**

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<thead>
<tr>
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<tbody>
<tr>
<td>6.2.1 CK The teacher understands the interdependence of science, engineering, and technology.</td>
<td>6.2.3 PS The teacher incorporates into instruction examples of the interdependence of science, engineering, and technology. Examples include: 1) advances in scientific understanding in genetics can be translated into medical treatments, and 2) new technology such as advanced telescopes and probes provide new understandings of outer space.</td>
</tr>
<tr>
<td>6.2.2 CK The teacher understands the influences of engineering, technology, and science to the broader society and environment.</td>
<td>6.2.4 PS The teacher incorporates into instruction examples of the influences of engineering, technology, and science to the broader society and environment. Examples include: 1) how measurement technologies have changed civilizations throughout history, and 2) how the use of natural resources has impacted the natural world.</td>
</tr>
</tbody>
</table>

**Standard 7: Structure and Properties of Matter:** Effective teachers understand the structure of matter on the atomic and macroscopic levels, and the relationship between structure and properties of matter, engaging students in using the periodic table as a model to predict the properties of elements based on the patterns of valence electrons as well as facilitating student investigations to gather evidence to compare trends in the periodic table and knowledge of the patterns of chemical properties.

**Function 1: Atoms:** The teacher designs and models investigations of the concept that matter consists of atoms having internal structures that dictate their chemical and physical behavior.

<table>
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<tbody>
<tr>
<td>7.1.1 CK The teacher understands the historical development of atomic theory and changes in the model of the atom including the experimental data supporting those changes.</td>
<td>7.1.4 PS The teacher develops and implements lessons to demonstrate atomic theory and the organization of the periodic table, specifically periodic trends in reactivity.</td>
</tr>
<tr>
<td>7.1.2 CK The teacher knows core principles and concepts associated with electronic structure of atoms including electronic configurations.</td>
<td></td>
</tr>
<tr>
<td>7.1.3 CK The teacher understands periodic law, the organization of the periodic table, and how similarities and differences in atomic structure of the elements underlie chemical trends in the periodic table.</td>
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**Function 2: The teacher understands that matter absorbs and emits energy**

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<tbody>
<tr>
<td>7.2.1 CK The teacher can describe the relationships between energy, wavelength, and</td>
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</table>
frequency and relate them to regions of the electromagnetic spectrum. The teacher knows the types and uses of spectroscopic methods used to deduce atomic and molecular structure.

| Function 3: The teacher understands and can model the concept that compounds have geometric structures that influence their chemical and physical behaviors. |
|---|---|
| **Content Knowledge** | **Professional Skills** |
| 7.3.1 CK The teacher understands various models describing the electronic and geometric structure of molecules such as VSEPR and Lewis Dot structures. | 7.3.2 PS The teacher engages students in constructing and describing models using VSEPR theory. |

| Function 4: The teacher designs investigations into the concept that matter consists of pure substances or mixtures. |
|---|---|
| **Content Knowledge** | **Professional Skills** |
| 7.4.1 CK The teacher knows the principles and concepts of chemical separations and how the components in complex mixtures can be separated. | 7.4.3 PS The teacher engages students in performing experiments to separate the components of mixtures. |
| 7.4.2 CK The teacher knows the nomenclature, nature, structure, and characteristics of atoms, molecules, and ions. | |

**Standard 8: Matter and Its Interactions: Effective teachers will engage students in developing models that illustrate the release or absorption of energy from a chemical reaction system as well as investigating reaction rates and equilibrium states.**

| Function 1: The teacher understands that matter interacts with energy and undergoes physical and/or chemical changes. |
|---|---|
| **Content Knowledge** | **Professional Skills** |
| 8.1.1 CK The teacher knows that atoms interact via electrostatic forces to form chemical bonds. | 8.1.5 PS The teacher engages students in investigating colligative properties and applying kinetic theory in laboratory situations. |
| 8.1.2 CK The teacher understands kinetic molecular theory and its application to states and properties of matter. | |
| 8.1.3 CK The teacher understands intermolecular forces and their influence on the physical properties and chemical behavior of substances. | |
| 8.1.4 CK The teacher understands the nature and properties of solutions, with particular emphasis on aqueous solutions and colligative properties. | |

| Function 2: The teacher engages students in investigations involving the changes of matter and that these changes form products that have new chemical and/or physical properties. |
|---|---|
| **Content Knowledge** | **Professional Skills** |
| 8.2.1 CK The teacher understands the concepts and principles of stoichiometry involving the | 8.2.5 PS The teacher engages students in identifying different types of chemical reactions based on experimentation, including acid-base, |
study of quantitative relationships among reactants and products in chemical reactions. combustion, precipitation, and oxidation-reduction reactions.

| 8.2.2 CK The teacher knows that enthalpy and entropy are the driving forces of chemical reactions in molecular-scale systems as well as macroscopic systems. |
| 8.2.6 PS The teacher engages students in writing balanced molecular, ionic and net ionic reaction equations. |

| 8.2.3 CK The teacher understands that all chemical changes are, in principle, reversible. Teachers can apply Le Chatelier's principle and equilibrium constants to describe a dynamic equilibrium. |

| 8.2.4 CK The teacher understands the core theories, laws, and concepts of chemical kinetics and their applications to the rates, mechanisms, and catalysis of chemical reactions. |
Standard #1 The teacher of chemistry demonstrates an understanding of the core theories, laws, principles, and concepts concerning the structure of matter.

Knowledge
1. The teacher knows the nomenclature, nature, structure, and characteristics of inorganic atoms, molecules and ions.
2. The teacher knows atomic theory and atomic structure.
3. The teacher knows the core principles and concepts associated with the configurations of electrons in atoms.
4. The teacher understands the various forms of molecular and atomic absorption and emission spectroscopy that are used in quantitative analysis and for determination of molecular structure.
5. The teacher knows the core concepts and laws of nuclear chemistry.
6. The teacher knows the core concepts and chemistry of the s-block, p-block, d-block, and f-block elements.
7. The teacher understands the concept of stereoisomerism and its applications to organic molecules.
8. The teacher understands the core concepts of the various kinds of spectroscopic methods in organic chemistry, with particular emphasis on NMR, IR, UV, and mass spectroscopy and how these methods are used to deduce the structure of organic molecules.
9. The teacher understands the structure, properties, and characteristic reactions of functional groups in organic molecules.

Performance
1. The teacher can utilize the content in this standard at a substantially greater depth than the level taught to students.

Standard #2 The teacher of chemistry demonstrates an understanding of the core theories, laws, principles, and concepts concerning the states and properties of matter.

Knowledge
1. The teacher knows kinetic molecular theory and its applications to states and properties of matter, with particular emphasis on the laws associated with the gaseous state.
2. The teacher knows intermolecular forces and their actions with respect to states of matter, with particular emphasis on how intermolecular forces relate to changes of state.
3. The teacher understands the periodic law, the organization of the periodic table, and how similarities and differences in atomic structure of the elements underlie chemical trends in the periodic table.
4. The teacher knows the properties and concepts of solutions, with particular emphasis on aqueous solutions and colligative properties.
5. The teacher knows the core theories and concepts of equilibrium to the equilibria of complex ions and slightly soluble salts.
6. The teacher understands the principles and concepts of chemical separations and how the components in complex mixtures can be separated and identified by chromatography and other separations techniques.
7. The teacher understands the core concepts of physical chemistry, which include foundational concepts of thermodynamics, the laws of thermodynamics, kinetic molecular theory of gases and equilibrium in ideal and non-ideal gases, equilibrium in solutions, transport processes, quantum mechanics, atomic structure, molecular electronic structure, spectroscopic methods and photochemistry, statistical mechanics, and the structure of condense phases.
Performance
1. The teacher can utilize the content in this standard at a substantially greater depth than the level taught to students.

Standard #3 The teacher of chemistry demonstrates an understanding of the theories, laws, principles, and concepts concerning chemical reactions.

Knowledge
1. The teacher knows the concepts and principles of stoichiometry, the study of quantitative relationships among the reactants and products in chemical reactions, including reactions in aqueous solutions.
2. The teacher knows the laws and concepts of thermochemistry and how these concepts affect chemical reactions.
3. The teacher knows the major theories of chemical bonding and how these theories explain the various kinds of chemical bonds.
4. The teacher knows the core theories, laws, and concepts of chemical kinetics and the applications of these theories, laws, and concepts to the rates and mechanisms of chemical reactions.
5. The teacher knows the core nature, principles, and concepts of chemical equilibrium.
6. The teacher knows the core theories and concepts of acids and bases and acid-base equilibria and can apply them with particular emphasis on mono- and polyprotic acids and bases, their buffer systems, the variations in their fractions as a function of pH, and their volumetric titrations.
7. The teacher knows the core concepts and principles of electrochemistry, primary and secondary batteries, fuel cells, corrosion, and ion-selective electrodes.
8. The teacher understands gravimetric, and electrochemical methods to the analysis of chemical systems.
9. The teacher knows nomenclature, the concepts of structure and bonding in organic molecules, and the factors that determine their physical and chemical properties.
10. The teacher knows the properties and characteristic reactions of organic molecules that lack a functional group.
11. The teacher understands the core concepts and mechanisms of the flow of biological information, with particular emphasis on nucleic acids; DNA replication, repair, and recombination; transcription and RNA processing; protein synthesis; and recombinant DNA technology.

Performance
1. The teacher can utilize the content in this standard at a substantially greater depth than the level taught to students.

Standard #4 The teacher of chemistry demonstrates an understanding of the nature of inquiry and the ability necessary to help students do scientific inquiry.

Knowledge
1. The teacher understands the nature of scientific inquiry.

Performance
1. The teacher develops, through experiences, a rich understanding and curiosity of the natural (material) world.
2. The teacher develops questions and demonstrates an understanding of the concepts that guide scientific investigations.
3. The teacher designs and conducts scientific investigations.
4. The teacher uses technology and mathematics to improve investigations and communications.
5. The teacher formulates and revises scientific explanations and models using logic and evidence.
6. The teacher recognizes and analyzes alternative explanations and models.
7. The teacher communicates and defends a scientific argument.
8. The teacher plans and implements activities with different structures for inquiry including inductive (exploratory), correlational and deductive (experimental) studies.
9. The teacher uses questions to encourage inquiry and probe for divergent student responses, encouraging student questions, and responding with questions when appropriate.
10. The teacher encourages productive peer interactions and plans both individual and small group activities to facilitate inquiry.
11. The teacher plans and implements data-based activities requiring students to reflect upon their findings, make inferences, and link new ideas to preexisting knowledge.

Standard #5 The teacher of chemistry demonstrates an understanding of the basic relationships between science and technology.

Knowledge
1. The teacher understands that creativity, imagination, and a broad knowledge base are all required in the work of science and engineering.
2. The teacher knows that scientists in different disciplines ask different questions, use different methods of investigation, and accept different types of evidence to support their explanations.
3. The teacher knows that progress in science and technology can be affected by social issues and challenges.
4. The teacher knows that science and technology are pursued for different purposes.
5. The teacher knows that science advances new technologies. New technologies open new areas for scientific inquiry.
6. The teacher knows that scientific knowledge is made public through presentation at professional meetings and publications in scientific journals, while technological knowledge is often not shared for a variety of reasons.
7. The teacher knows that science and technology are essential components of modern society. Science and technology indicate what can happen, not what should happen. The latter involves human decisions about the use of knowledge.
8. The teacher understands that basic concepts and principles of science and technology should precede active debate about the economics, policies, politics, and ethics of various challenges related to science and technology.

Performance
1. The teacher can demonstrate the basic relationship between chemistry and technology.

Standard #6 The teacher of chemistry demonstrates an understanding of science as a human endeavor, of the nature of science, and of science from historical perspectives.

Knowledge
1. The teacher has first-hand knowledge of how to engage in extended science inquiry in a laboratory setting. Just as preservice teachers need to engage in practice teaching, they need to engage in practicing science.
2. The teacher has an understanding of science as both vocation and avocation.
3. The teacher recognizes the universality of basic science concepts and the influence of personal and cultural beliefs that embed science in society.
4. The teacher recognizes that society helps create the ways of thinking (mindsets) required for scientific advances, both toward training scientists and the education of a populace to utilize benefits of science (e.g., standards of hygiene, attitudes toward forces of nature, etc.).
5. The teacher recognizes society’s role in supporting topics of research and determining institutions where research is conducted.

**Performance**

1. The teacher relates science content to the real world.
2. The teacher links the study of chemistry to career opportunities.
3. The teacher explains how science uses peer review, replication of methods, and norms of honesty.
4. The teacher demonstrates an understanding of the nature of scientific knowledge and that science is a way of knowing.
5. The teacher explains the rules of evidence and can distinguish characteristics of knowledge in science from rules and knowledge in other disciplines.
6. The teacher explains and provides examples of conventions for research, evidence and explanation, distinguishing laws, theories, and hypotheses.
7. The teacher explains the history of science, including the historical development of current science theories and knowledge.
8. The teacher uses mathematics and statistics to analyze and interpret data in the context of science.
9. The teacher demonstrates an ability to do limited but original research in science.

**Standard #7** The teacher of chemistry demonstrates an understanding of the concepts and processes unifying science domains.

**Knowledge**

1. The teacher understands how the concepts and processes of system, order and organization; evidence, models and explanation; constancy, change and measurement; patterns of cumulative change; and form and function, unify the various domains of science.
2. The teacher has a basic understanding of the basic concepts and principles of biology, earth and space science, and physics as they relate to understanding chemistry.

**Performance**

1. The teacher relates science concepts to each other and even to ideas in other academic areas.
2. The teacher understands how the knowledge and mastery of each concept of chemistry grows and develops across the grade levels and adjusts instruction accordingly.
3. The teacher explains, answers questions, guides inquiry, generalizes accurately, and mentors and guides advanced students who need and benefit from the enrichment of their lessons due to the greater personal knowledge of chemistry than that expected of students.

**Standard #8** The teacher of chemistry demonstrates an understanding of and an ability to teach science effectively.

**Knowledge**

1. The teacher understands how students learn science concepts and develop the abilities of science inquiry.
2. The teacher understands the abilities and developmental readiness of students to learn chemistry content and skills.
3. The teacher understands how to use appropriate applications of advanced technologies in teaching science.
**Performance**

1. The teacher identifies common student misconceptions in science, their source, and an appropriate teaching response.
2. The teacher provides the opportunity for student discovery and application of knowledge.
3. The teacher plans and uses science teaching strategies and models appropriate for learners with diverse backgrounds, abilities, and learning styles.
4. The teacher encourages students to develop scientific reasoning, critical thinking, and problem solving skills.
5. The teacher designs and adapts procedures and protocols for students to plan, execute, and communicate the results of laboratory and field-based studies in chemistry.
6. The teacher demonstrates the ability to effectively engage students in learning science, both individually and in-group work of various kinds.
7. The teacher facilitates student planned and conducted investigations.

**Standard #9** The teacher of chemistry enacts a science curriculum that integrates content within the sciences and among other disciplines.

**Knowledge**

1. The teacher understands national and state standards for science education.
2. The teacher understands the importance of the district and school framework of goals, plans, materials, and resources for enacting quality science instruction.
3. The teacher is familiar with high-quality curricular materials in science.
4. The teacher knows several strategies for developing integrated units with science as the connecting theme.
5. The teacher knows where and how to access appropriate materials for conducting science investigations with students.

**Performance**

1. The teacher relates instructional goals, materials, and actions to state and national science education standards, analyzing strengths and weaknesses in a particular classroom context.
2. The teacher identifies, evaluates, and selects a diverse set of appropriate and potentially useful instructional materials in science from a variety of sources including the World Wide Web.
3. The teacher develops and implements course plans, unit plans, and lesson plans with clear rationales, goals, methods, materials, and assessments.
4. The teacher creates learning experiences that integrate subject matter within the science disciplines and with other subjects using real life problems.
5. The teacher designs and implements learning activities that thematically relate science with other school subjects and community resources.
6. The teacher fosters student development and application of skills in language arts and mathematics in learning science.
7. The teacher demonstrates an awareness of current chemistry curriculum issues and resources.

**Standard #10** The teacher of chemistry understands how to relate science to the daily lives and interests of students and to a larger framework of human endeavor and understanding.

**Knowledge**

1. The teacher is aware of social and political issues in the community that are dependent upon an understanding of chemistry.
2. The teacher understands how chemistry concepts and processes are used in real life situations.
3. The teacher understands and relates the application of chemistry concepts to technological, societal, and cultural issues.

**Performance**

1. The teacher engages students in activities and projects in which they examine important social or technological issues related to chemistry.
2. The teacher engages students in investigating local chemistry and technological issues.
3. The teacher instructs students in the processes of decision-making about chemistry and technological issues and applications.
4. The teacher relates chemistry to the interest of students, to potential careers, and to knowledge in other domains.

**Standard #11** The teacher of chemistry assesses students’ educational progress through a variety of methods.

**Knowledge**

1. The teacher knows how to align standards, goals, instruction, outcomes, and assessments in chemistry.
2. The teacher knows a variety of assessment strategies to evaluate the cognitive, psychomotor, social, and personal development of the learner in all aspects of chemistry.
3. The teacher knows techniques for identifying prior knowledge of chemistry concepts and abilities that lead students to construct new understandings.

**Performance**

1. The teacher uses the most appropriate methods for gathering information about student learning aligned with instructional goals and based on student characteristics, needs, and abilities.
2. The teacher demonstrates the ability to use multiple strategies to assess teaching and learning authentically consistent with national standards and goals for chemistry education.

**Standard #12** The teacher of chemistry designs and manages safe and supportive learning environments.

**Knowledge**

1. The teacher understands the elements of a safe environment in all areas related to chemistry instruction.
2. The teacher understands liability and negligence, especially as it applies to chemistry teaching.
3. The teacher understands how to design, adapt, and use physical space, the outdoors, equipment, and resources to establish a positive learning environment.
4. The teacher understands the psychological and social environment conducive to the students’ intellectual, social, and personal growth in chemistry education.
5. The teacher understands the norms and values of a science learning community.

**Performance**

1. The teacher sets up procedures for safe handling, labeling, storage, and disposal of chemicals, electrical equipment, and science materials.
2. The teacher takes appropriate actions to prevent accidents in the laboratory and field.
3. The teacher follows appropriate procedures for reporting an emergency.
4. The teacher establishes the elements of an exciting and stimulating environment for chemistry.
5. The teacher establishes a productive learning community in the chemistry classroom.
6. The teacher plans and develops opportunities for students to learn from resources, events, and displays in the environment.
Standard #13 The teacher of chemistry improves teaching through ongoing professional practice.

**Knowledge**
1. The teacher understands the ethical standards and responsibilities of a professional science teacher.
2. The teacher is aware of the professional organizations and professional development opportunities available to support chemistry teachers.

**Performance**
1. The teacher accepts responsibility for working collaboratively with students, members of the community, and other educators to improve science education.
2. The teacher develops and states personal goals and philosophy of teaching based on research and contemporary values of the science education community.
3. The teacher becomes involved in professional science education activities and shares knowledge and ideas with colleagues.
Crosswalk: Previous versus New Physics 6-12 Standards

General Information about this Revision:
- The structure has changed to include Professional Skills indicators rather than the previous Performance indicators.
- The previous standards only had indicators listed in each standard while the new standards are broken down by Functions and then have the two types of indicators within each Function.
- The new Physics standards are significantly different enough from the previous standards that a standard by standard crosswalk is not helpful. In the chart below, the new standards are presented in the first column for reference purposes. The previous standards are presented in the middle column with notations to the right.
- The new Physics standards are focused on specific content knowledge, problem solving skills, and teaching techniques and technology.

<table>
<thead>
<tr>
<th>NEW STANDARD 1</th>
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</thead>
<tbody>
<tr>
<td><strong>NEW STANDARDS</strong></td>
</tr>
<tr>
<td>Standard 1: Content Pedagogy: Effective science teachers understand how students learn and develop science concepts and practices. They incorporate disciplinary core ideas, scientific and engineering practices, and crosscutting concepts into instruction.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>NEW STANDARD 2</th>
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<tbody>
<tr>
<td><strong>NEW STANDARDS</strong></td>
</tr>
<tr>
<td>Standard 2: Learning Environments: Teachers work with students and others to create and manage environments that support learning.</td>
</tr>
</tbody>
</table>
Standard #6 The teacher of physics demonstrates an understanding of science as a human endeavor, of the nature of science, and of science from historical perspectives.

Standard #8 The teacher of physics demonstrates an understanding of and an ability to teach science effectively.

### New Standard 3

<table>
<thead>
<tr>
<th>NEW STANDARDS</th>
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</thead>
<tbody>
<tr>
<td>Standard 3: Safety: Effective teachers of science demonstrate and implement safety procedures, material safety practices, and the ethical treatment and use of living organisms (appropriate to their area of licensure).</td>
<td>Standard #12 The teacher of physics designs and manages safe and supportive learning environments.</td>
<td>Old Standard 12 is subsumed into New Standards 3 and 5.</td>
</tr>
</tbody>
</table>

### New Standard 4

<table>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Standard 4: Impact on Student Learning: Science teachers provide evidence that students’ understanding of disciplinary core ideas, science and engineering practices, and crosscutting concepts have increased in sophistication as a result of instruction. Candidates provide evidence representative of the entire population they teach.</td>
<td>Standard #8 The teacher of physics demonstrates an understanding of and an ability to teach science effectively. Standard #11 The teacher of physics assesses students’ educational progress through a variety of methods.</td>
<td>Old Standards 8 and 11 are subsumed into New Standard 4.</td>
</tr>
</tbody>
</table>
### New Standard 5

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<tr>
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</thead>
<tbody>
<tr>
<td>Standard 5: Professional Knowledge and Skills: Effective science teachers are aware of and engage in professional development opportunities to continually improve their knowledge and understanding of science content and pedagogy. They conduct themselves as part of the science education community.</td>
<td>Standard #12 The teacher of physics designs and manages safe and supportive learning environments. Standard #13 The teacher of physics improves teaching through ongoing professional practice.</td>
<td>Old Standards 12 and 13 are subsumed into New Standard 5.</td>
</tr>
</tbody>
</table>

### New Standard 6

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<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Standard 6: Engineering, Technology, and the Applications of Science: The teacher demonstrates an understanding of concepts and practices of engineering, technology, and the applications of science in developing instruction for students.</td>
<td>Standard #5 The teacher of physics demonstrates an understanding of the basic relationships between science and technology. Standard #7 The teacher of physics demonstrates an understanding of the concepts and processes unifying science domains. Standard #9 The teacher of physics enacts a science curriculum that integrates content within the sciences and among other disciplines. Standard #11 The teacher of physics assesses students’ educational progress through a variety of methods. Standard #13 The teacher of physics improves teaching through ongoing professional practice.</td>
<td>Old Standards 5, 7, 9, 11, and 13 are subsumed into New Standard 6.</td>
</tr>
</tbody>
</table>
### New Standard 7

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Standard 7: Motion, Forces, Energy, &amp; Heat: The physics teacher demonstrates a solid grasp of the classical mechanics of particles and fluids and thermal physics.</td>
<td>Standard #1 The teacher of physics demonstrates an understanding of the relationships between motions and forces. Standard #3 The teacher of physics demonstrates an understanding of the basic interactions of matter and energy.</td>
<td>Old Standards 1 and 3 are subsumed into New Standard 7.</td>
</tr>
</tbody>
</table>

### New Standard 8

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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Standard 8: Electricity and Magnetism: The physics teacher demonstrates a solid grasp of electricity and magnetism.</td>
<td>Standard #1 The teacher of physics demonstrates an understanding of the relationships between motions and forces. Standard #2 The teacher of physics demonstrates an understanding of the conservation of mass and energy, and that the overall disorder of the universe is increased during every chemical and physical change. Standard #3 The teacher of physics demonstrates an understanding of the basic interactions of matter and energy.</td>
<td>Old Standards 1, 2, and 3 are subsumed into New Standards 8 and 9.</td>
</tr>
</tbody>
</table>

### New Standard 9

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Standard 9: Curricular Content Knowledge in Modern Physics: The</td>
<td>Standard #1 The teacher of physics demonstrates an understanding of the</td>
<td>Old Standards 1, 2, and 3 are subsumed into New Standards 8 and 9.</td>
</tr>
</tbody>
</table>
Teacher of physics demonstrates understanding of basic concepts and applications of 20th century discoveries in the fundamental views of space, time, and the wave nature of matter, collectively termed Modern Physics.

Standard #2 The teacher of physics demonstrates an understanding of the conservation of mass and energy, and that the overall disorder of the universe is increased during every chemical and physical change.

Standard #3 The teacher of physics demonstrates an understanding of the basic interactions of matter and energy.

# New Standard 10

<table>
<thead>
<tr>
<th>NEW STANDARDS</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Standard 10: General Science, Engineering, &amp; Technology: The physics teacher demonstrates an understanding of the cross curricular ties between physics, life science, earth science, engineering, and technology.</td>
<td>Standard #5 The teacher of physics demonstrates an understanding of the basic relationships between science and technology.</td>
<td>Old Standards 5 and 10 are subsumed into New Standard 10.</td>
</tr>
<tr>
<td>Standard #5 The teacher of physics demonstrates an understanding of the basic relationships between science and technology.</td>
<td>Standard #10 The teacher of physics understands how to relate science to the daily lives and interests of students and to a larger framework of human endeavor and understanding.</td>
<td></td>
</tr>
</tbody>
</table>
PROPOSED
Kansas Educator Preparation Program Standards for Physics
Grades 6-12

**Learner(s) is defined as children including those with disabilities or exceptionalities, who are gifted, and
students who represent diversity based on ethnicity, race, socioeconomic status, gender, language, religion,
and geographic origin.

Standard 1: Content Pedagogy: Effective science teachers understand how students learn and develop science
concepts and practices. They incorporate disciplinary core ideas, scientific and engineering practices, and
crosscutting concepts into instruction.

Function 1: The teacher plans multiple lessons using a variety of inquiry approaches incorporating science and
engineering practices.

<table>
<thead>
<tr>
<th>Content Knowledge</th>
<th>Professional Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1.1 CK The teacher knows how to locate resources, design and conduct inquiry-based open-ended science investigations, interpret findings, communicate results, and make judgments based on evidence.</td>
<td>1.1.2 PS The teacher supports student learning through appropriate curricular and instructional experiences linked to the standards</td>
</tr>
<tr>
<td>1.1.3 PS The teacher is able to develop lessons for students that demonstrate knowledge of the practices of science and engineering by questioning, defining problems, modeling, investigating, and analyzing evidence in order to construct explanations and alternative explanations.</td>
<td></td>
</tr>
<tr>
<td>1.1.4 PS The teacher is able to develop lessons in which students collect and interpret data, develop and communicate concepts, and understand scientific processes, relationships and natural patterns from empirical experiences. Applications of science-specific technology are included in the lessons when appropriate.</td>
<td></td>
</tr>
</tbody>
</table>

Function 2: The teacher demonstrates knowledge and understanding of how diverse students learn science.

<table>
<thead>
<tr>
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<th>Professional Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2.1 CK The teacher knows learning is influenced by cultural and environmental differences of the student and family.</td>
<td>1.2.2 CK The teacher understands developmentally and chronologically age-appropriate needs and practices of students.</td>
</tr>
<tr>
<td>1.2.3 CK The teacher understands diverse learning styles.</td>
<td>1.2.4 PS The teacher gains and values information about the family’s culture and environment and uses it to understand individual development and learning.</td>
</tr>
<tr>
<td>1.2.5 PS The teacher promotes developmentally and chronologically age-appropriate educational experiences to meet the learning abilities, strengths, needs, and preferences of students.</td>
<td></td>
</tr>
</tbody>
</table>

Function 3: The teacher designs instruction and assessment strategies that confront and address naïve concepts/preconceptions.

<table>
<thead>
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<tbody>
<tr>
<td>1.3.1 CK The teacher knows learning is influenced by cultural and environmental differences of the student and family.</td>
<td>1.3.2 CK The teacher understands formative and summative assessment and how they are used.</td>
</tr>
<tr>
<td>1.3.3 PS The teacher uses appropriate formal and informal evaluation/assessment instruments to identify learning needs of students.</td>
<td>1.3.4 PS The teacher is able to identify common student misconceptions and naïve understandings and design and implement appropriate instruction to address these.</td>
</tr>
</tbody>
</table>
### Standard 2: Learning Environments: Teachers work with students and others to create and manage environments that support learning.

#### Function 1: The teacher supports individual and group learning.

<table>
<thead>
<tr>
<th>Content Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1.1 CK The teacher understands the importance of rigor, respect, and responsibility for the learning environment.</td>
</tr>
<tr>
<td>2.1.2 CK The teacher understands how teacher feedback influences student learning.</td>
</tr>
<tr>
<td>2.1.3 PS The teacher sets and articulates appropriate goals that are consistent with knowledge of how students learn science.</td>
</tr>
<tr>
<td>2.1.4 PS The teacher sets goals that are aligned with state and other professional standards.</td>
</tr>
<tr>
<td>2.1.5 PS The teacher manages the environment to make learning experiences appropriately challenging.</td>
</tr>
</tbody>
</table>

#### Function 2: The teacher encourages positive social interaction.

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>2.2.1 CK The teacher understands how learner diversity can affect communication and knows how to communicate effectively in differing environments.</td>
</tr>
<tr>
<td>2.2.2 CK The teacher understands how learning occurs, how learners construct knowledge, acquire skills, and develop disciplined thinking processes and knows how to use instructional strategies that promote student learning.</td>
</tr>
<tr>
<td>2.2.3a PS The teacher plans fair and equitable assessment strategies to analyze student learning and to evaluate if the learning goals are met.</td>
</tr>
<tr>
<td>2.2.3b PS The teacher promotes celebration of learning by providing positive reinforcement and encouraging learners to present work demonstrating their learning and interacting with community members about their work.</td>
</tr>
<tr>
<td>2.2.3c PS The teacher communicates verbally and nonverbally, with families, communities, colleagues, and other professionals, in ways that demonstrate respect for and responsiveness to the cultural backgrounds and differing perspectives learners bring to the learning environment.</td>
</tr>
<tr>
<td>2.2.3d PS The teacher knows how to help learners work productively and cooperatively with each other to achieve learning goals.</td>
</tr>
<tr>
<td>2.2.4a PS The teacher develops plans that reflect the nature and social context of science and inquiry.</td>
</tr>
<tr>
<td>2.2.4b PS The teacher creates developmentally appropriate instruction that takes into account individual learners' strengths, interests, and needs and that enables each learner to advance and accelerate his/her learning.</td>
</tr>
</tbody>
</table>

#### Function 3: The teacher promotes active engagement in learning and self-motivation.

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>2.3.1 CK The teacher understands the relationships between motivation, engagement, and self-efficacy, and knows how to design learning experiences using strategies that build learner self-direction and ownership of learning.</td>
</tr>
<tr>
<td>2.3.3a PS The teacher shows the ability to use a variety of strategies that demonstrate the candidates' knowledge and understanding of how to select the appropriate teaching and learning activities, including laboratory or field settings and applicable instruments and technology.</td>
</tr>
<tr>
<td>2.3.3b PS</td>
</tr>
<tr>
<td>2.3.3c PS</td>
</tr>
</tbody>
</table>

| 2.3.2 CK | The teacher creates learning environments where students have an opportunity to actively engage in the practices of science and engineering. |
| 2.3.4a PS | The teacher will develop lesson plans that include active inquiry lessons where students are collecting, analyzing, and interpreting data. |
| 2.3.4b PS | The teacher will develop lesson plans that allow students to engage in developing and using models, constructing explanations and designing solutions, engaging in argument from evidence, and evaluating and communicating information. |

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### Standard 3: Safety

Effective teachers of science demonstrate and implement safety procedures, material safety practices, and the ethical treatment and use of living organisms (appropriate to their area of licensure).

#### Function 1: The teacher implements safe and proper techniques for the preparation, storage, dispensing, supervision, and disposal of all materials.

<table>
<thead>
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<th>Content Knowledge</th>
<th>Professional Skill</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1.1 CK</td>
<td>The teacher understands safety considerations affecting the purchase, storage, maintenance, and disposal of materials such as minimizing quantities in ordering, tracking usage of materials and production of waste, and keeping current on inventory of materials.</td>
</tr>
<tr>
<td>3.1.3 PS</td>
<td>The teacher understands, applies, and promotes the maintenance of a safe environment in accordance with the recommendations of the National Science Teachers Association.</td>
</tr>
<tr>
<td>3.1.2 CK</td>
<td>The teacher understands proper techniques and precautions for controlling access to materials in the student laboratory including appropriate dispensing, supervision of materials, and handling of waste.</td>
</tr>
<tr>
<td>3.1.4 PS</td>
<td>The teacher maintains an orderly environment, uses safe and appropriate storage of materials and equipment, and minimizing clutter so as to reduce the potential for accidents.</td>
</tr>
</tbody>
</table>

#### Function 2: The teacher designs and models activities to implement emergency procedures. The teacher understands the maintenance of safety equipment and follows policies and procedures that comply with established state and/or national guidelines. The teacher ensures safe science activities appropriate for the abilities of all students.

<table>
<thead>
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<tbody>
<tr>
<td>3.2.1 CK</td>
<td>The teacher understands appropriate emergency procedures and maintenance of safety equipment, policies and procedures that comply with established state and/or national guidelines.</td>
</tr>
<tr>
<td>3.2.3 PS</td>
<td>The teacher designs and implements activities that demonstrate emergency procedures and the proper use of safety equipment in accordance with the recommendations of the National Science Teachers Association.</td>
</tr>
<tr>
<td>3.2.2 CK</td>
<td>The teacher understands how students’ developmental levels affect safety in classroom, laboratory and field environments, and considers this in designing activities to maintain a safe environment.</td>
</tr>
<tr>
<td>3.2.4 PS</td>
<td>The teacher enforces safe science practices in activities appropriate to the abilities of all students.</td>
</tr>
</tbody>
</table>

#### Function 3: The teacher designs and implements activities that demonstrate ethical decision-making with respect to the treatment of living organisms in and out of the classroom. The teacher emphasizes safe, humane, and

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ethical treatment of animals and complies with the legal restrictions on the collection, keeping, use, and treatment of living organisms.

<table>
<thead>
<tr>
<th>Content Knowledge</th>
<th>Professional Skill</th>
</tr>
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<tbody>
<tr>
<td>3.3.1 CK The teacher understands the principles of ethical decision-making with respect to the treatment of living organisms in and out of the classroom.</td>
<td>3.3.4 PS The teacher designs and implements activities that demonstrate ethical decision-making with respect to the treatment of living organisms in and out of the classroom.</td>
</tr>
<tr>
<td>3.3.2 CK The teacher knows the legal restrictions on the collection, keeping, use, and treatment of living organisms.</td>
<td>3.3.5 PS The teacher complies with the legal restrictions on the collection, keeping, and use of living organisms.</td>
</tr>
<tr>
<td>3.3.3 CK The teacher is aware of hazards from exposure to allergens, toxins, and pathogens in the classroom, laboratory, or field environment.</td>
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</tbody>
</table>

**Standard 4: Impact on Student Learning:** Science teachers provide evidence that students’ understanding of disciplinary core ideas, science and engineering practices, and crosscutting concepts have increased in sophistication as a result of instruction. Candidates provide evidence representative of the entire population they teach.

**Function 1:** Teachers collect, organize, analyze, and reflect on diagnostic, formative and summative evidence of student learning.

<table>
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</thead>
<tbody>
<tr>
<td>4.1.1 CK The teacher understands the various methodologies to assess and analyze student learning, and address misconceptions.</td>
<td>4.1.2 PS The teachers utilize knowledge of appropriate developmental levels within the classroom environment.</td>
</tr>
<tr>
<td>4.1.3 PS The teacher reflects on formative and summative assessments, and adjusts instruction appropriately.</td>
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</table>

**Function 2:** The teacher provides data to show that students are able to distinguish science from nonscience, understand the evolution and practice of science as a human endeavor, and critically analyze the quality of evidence supporting scientific claims.

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</tr>
</thead>
<tbody>
<tr>
<td>4.2.1 CK The teacher understands the distinction between science and nonscience, and can distinguish between the two.</td>
<td>4.2.4 PS The teacher demonstrates that students are able to understand the distinction between science and nonscience, and can distinguish between the two.</td>
</tr>
<tr>
<td>4.2.2 CK The teacher understands the history, development and practice of science as a human endeavor.</td>
<td>4.2.5 PS The teacher demonstrates that students are able to understand the history, development and practice of science as a human endeavor.</td>
</tr>
<tr>
<td>4.2.3 CK The teacher critically analyzes the quality of evidence supporting scientific claims.</td>
<td>4.2.6 PS The teacher demonstrates that students are able to critically analyze the quality of evidence supporting scientific claims.</td>
</tr>
</tbody>
</table>

**Standard 5: Professional Knowledge and Skills:** Effective science teachers are aware of and engage in professional development opportunities to continually improve their knowledge and understanding of science content and pedagogy. They conduct themselves as part of the science education community.

**Function 1:** Teachers engage in professional development opportunities in their content field such as talks, symposiums, research opportunities, projects within their community, and/or social media.

<table>
<thead>
<tr>
<th>Content Knowledge</th>
<th>Professional Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1.1 CK The teacher demonstrates an awareness of professional organizations in science/education, and</td>
<td>5.1.2 PS Teachers engage in professional development opportunities such as conferences, research opportunities, projects within their community, and/or social media.</td>
</tr>
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</tbody>
</table>
professional development available from these organizations.

Standard 6: Engineering, Technology, and the Applications of Science: The teacher demonstrates an understanding of concepts and practices of engineering, technology, and the applications of science in developing instruction for students.

Function 1: The teacher incorporates engineering design in instruction to solve problems. Engineering design includes the iterative processes of defining problems, developing solutions, and optimizing solutions.

<table>
<thead>
<tr>
<th>Content Knowledge</th>
<th>Professional Skills</th>
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</thead>
<tbody>
<tr>
<td>6.1.1 CK The teacher can define and delimit engineering problems with precision, and specify the goals intended to be reached.</td>
<td>6.1.4 PS The teacher develops and implements lessons in which students use engineering design principles (define the problem, develop solutions, and optimize solutions) in applications appropriate to their content area.</td>
</tr>
<tr>
<td>6.1.2 CK The teacher can develop possible solutions for a defined problem.</td>
<td></td>
</tr>
<tr>
<td>6.1.3 CK The teacher can systematically evaluate alternative solutions to engineering problems, analyzing data from tests of different solutions, and combining the best ideas into an improved solution.</td>
<td></td>
</tr>
</tbody>
</table>

Function 2: The teacher makes authentic connections among engineering, technology, science, and society.

<table>
<thead>
<tr>
<th>Content Knowledge</th>
<th>Professional Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.2.1 CK The teacher understands the interdependence of science, engineering, and technology.</td>
<td>6.2.3 PS The teacher incorporates into instruction examples of the interdependence of science, engineering, and technology. Examples include: 1) advances in scientific understanding in genetics can be translated into medical treatments, and 2) new technology such as advanced telescopes and probes provide new understandings of outer space.</td>
</tr>
<tr>
<td>6.2.2 CK The teacher understands the influences of engineering, technology, and science to the broader society and environment.</td>
<td>6.2.4 PS The teacher incorporates into instruction examples of the influences of engineering, technology, and science to the broader society and environment. Examples include: 1) how measurement technologies have changed civilizations throughout history, and 2) how the use of natural resources has impacted the natural world.</td>
</tr>
</tbody>
</table>


Function 1: The teacher of physics understands and can apply the classical mechanics of particles and fluids.

<table>
<thead>
<tr>
<th>Content Knowledge</th>
<th>Professional Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.1.1 CK The teacher understands Translational Kinematics in one and two dimensions.</td>
<td>7.1.5a PS The teacher will have a working knowledge of vector algebra and be able to utilize both polar and rectangular (component) notation.</td>
</tr>
<tr>
<td></td>
<td>7.1.5b PS The teacher will understand and utilize the concepts of displacement, velocity, and acceleration.</td>
</tr>
<tr>
<td></td>
<td>7.1.5c PS The teacher will be able to derive and employ the three major kinematic equations.</td>
</tr>
<tr>
<td>7.1.2a CK</td>
<td>The teacher understands Dynamics.</td>
</tr>
<tr>
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</tr>
<tr>
<td>7.1.2b CK</td>
<td>The teacher understands Newton’s Laws.</td>
</tr>
<tr>
<td>7.1.2c CK</td>
<td>The teacher understands Conservation of Momentum.</td>
</tr>
<tr>
<td>7.1.2d CK</td>
<td>The teacher understands Universal Gravitation.</td>
</tr>
<tr>
<td>7.1.2e CK</td>
<td>The teacher understands Conservation of Energy.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>7.1.6a PS</th>
<th>The teacher will know Newton’s three laws of motion and use them to explain a number of natural events.</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.1.6b PS</td>
<td>The teacher will be able to apply Newton’s 2nd law to a variety of one and two-dimensional static and dynamic situations, including those involving several forces, weight, friction, and tension.</td>
</tr>
<tr>
<td>7.1.6c PS</td>
<td>The teacher will be able to state and apply the law of conservation of momentum (as per Newton’s 3rd law) to a variety of one and two-dimensional situations involving both open and isolated systems.</td>
</tr>
<tr>
<td>7.1.6d PS</td>
<td>The teacher will understand and be able to apply Kepler’s laws of planetary motion in simple situations.</td>
</tr>
<tr>
<td>7.1.6e PS</td>
<td>The teacher will be able to state Newton’s law of gravitation, express it mathematically, and apply it to a variety of simple near earth and orbital situations.</td>
</tr>
<tr>
<td>7.1.6f PS</td>
<td>The teacher will understand the concept of work, in the scientific sense, and be able to calculate the work involved in a variety of simple situations.</td>
</tr>
<tr>
<td>7.1.6g PS</td>
<td>The teacher will relate work to energy using the work-energy theorem and apply it to a variety of simple mechanical situations.</td>
</tr>
<tr>
<td>7.1.6h PS</td>
<td>The teacher will understand the nature of potential energy, kinetic energy, and internal energy, be able to derive the formulas for translational kinetic energy and gravitational potential energy and apply them to simple cases.</td>
</tr>
<tr>
<td>7.1.6i PS</td>
<td>The teacher will be able to state the law of conservation of energy, express it mathematically ( \Delta E=Q+w ), and apply it to a variety of simple situations.</td>
</tr>
<tr>
<td>7.1.6j PS</td>
<td>The teacher will understand and be able to apply the principles underlying the operation of simple machines.</td>
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<table>
<thead>
<tr>
<th>7.1.3a CK</th>
<th>The teacher understands Periodic Motion.</th>
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<tbody>
<tr>
<td>7.1.3b CK</td>
<td>The teacher understands Rotational Motion.</td>
</tr>
<tr>
<td>7.1.3c CK</td>
<td>The teacher understands Simple Harmonic Motion.</td>
</tr>
</tbody>
</table>

| 7.1.7a PS | The teacher will understand the concepts of centripetal acceleration and centripetal force, be able to derive formulas for calculating them and apply them to simple cases such as objects moving in uniform circular motion and vehicles rounding highway curves. |
7.1.7b PS The teacher will understand and be able to apply the concepts of angular displacement, angular velocity, and angular acceleration in simple cases.

7.1.7c PS The teacher will be able to derive the three major kinematic equations for rotational motion and apply them in simple situations.

7.1.7d PS The teacher will understand the concepts of torque and rotational inertia and be able to calculate them for simple cases.

7.1.7e PS The teacher will understand and be able to apply Newton’s 2nd law for rotation in simple situations.

7.1.7f PS The teacher will be able to derive the formula for rotational kinetic energy and apply it in simple situations.

7.1.7g PS The teacher will understand the law of conservation of angular momentum and be able to apply it to simple cases.

7.1.7h PS The teacher will understand the nature of pseudoforces, such as centrifugal force and the Coriolis force, and explain why an observer traveling in a rotating coordinate system needs to invent them.

7.1.7i PS The teacher will know what simple harmonic motion (SHM) is and be able to identify common cases of objects in approximate SHM.

7.1.7j PS The teacher will understand what is meant by the frequency, period, and amplitude of an oscillator moving in SHM (an SHO) and measure these characteristics for real world SHO’s.

7.1.7k PS The teacher will understand Hooke’s law of elasticity and be able to apply it to simple situations, including the derivation of a formula for calculating the elastic potential energy of a stretched or compressed spring.

7.1.7l PS The teacher will be able to apply the law of conservation of energy to SHO’s.

7.1.7m PS The teacher will be able to use a reference circle to develop formulas for calculating the speed and period for a SHO and apply them to a simple pendulum.

7.1.7n PS The teacher will be able to use a reference circle to justify the graphs and equations for the displacement, velocity, and acceleration of a SHO.
| 7.1.4a CK The teacher understands Fluid Mechanics. | 7.1.8a PS The teacher will understand what a fluid is, both macroscopically and microscopically, and be able to recognize common real world fluids. |
| 7.1.4b CK The teacher understands Fluid Statics. | 7.1.8b PS The teacher will understand the concepts of density and specific gravity and be able to apply them to situations involving fluids. |
| 7.1.4c CK The teacher understands Fluid Dynamics. | 7.1.8c PS The teacher will understand the meaning of pressure and the role of pressure in fluid systems, and be able to operate instruments used to measure pressure in real world situations. |
| 7.1.4d CK The teacher understands Wave Motion. | 7.1.8d PS The teacher will understand Pascal’s principle, Archimedes’ principle, and Boyle’s law and be able to apply them to simple situations. |
| 7.1.4e CK The teacher understands Acoustics. | 7.1.8e PS The teacher will understand and be able to apply the continuity equation and Bernoulli’s principle to simple situations. |

7.1.7o PS The teacher will be able to differentiate between natural and forced vibrations and between free and damped vibrations in real world systems.

7.1.7p PS The teacher will grasp the concept of resonance on a qualitative level and recognize real world examples.

7.1.8f PS The teacher will understand the principles of sedimentation, Drag, surface tension, and fluid flow in tubes and channels, and apply them in simple situations.

7.1.8g PS The teacher will know what a wave is, be able to describe it in terms of its frequency, period, wavelength, and amplitude, and realize that a wave is the only way to transfer energy without it being carried by a particle.

7.1.8h PS The teacher will know and be able to utilize the fundamental wave formula \(v=f\lambda\).

7.1.8i PS The teacher will differentiate between transverse and longitudinal waves.

7.1.8j PS The teacher will be able to demonstrate the characteristic behaviors of waves; reflection, refraction, interference, diffraction, and polarization (transverse waves only).

7.1.8k PS The teacher will be able to calculate the energy content, power, and intensity of a simple wave at a given point and its amplitude and intensity at a remote point.
7.1.8l PS The teacher will be able to apply the law of reflection and derive and utilize Snell’s law of refraction.

7.1.8m PS The teacher will be able to differentiate between constructive and destructive interference using the law of superposition.

7.1.8n PS The teacher will be able to demonstrate the nature and anatomy of a standing wave, natural vibrating frequencies, and resonance.

7.1.8o PS The teacher will understand the nature and characteristics of sound and be able to compare and contrast quality sound and noise on a technical level.

7.1.8p PS The teacher will understand how the intensity of sound is measured and expressed and be able to apply that knowledge to simple situations.

7.1.8q PS The teacher will understand how sound is produced with emphasis on vibrating strings, membranes, air columns, and woodwind and brass musical instruments.

7.1.8r PS The teacher will understand the Doppler effect, both qualitatively and quantitatively, and be able to apply it to simple situations.

7.1.8s PS The teacher will demonstrate a qualitative knowledge of the nature of shock waves and sonic booms and technologies based upon sound such as ultrasound and medical imaging.

**Function 2: The teacher of physics understands and can apply the basic principles of thermal physics.**

<table>
<thead>
<tr>
<th>Content Knowledge</th>
<th>Professional Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.2.1 CK The teacher understands the Laws of Thermodynamics.</td>
<td>7.2.4a PS The teacher will understand that heat is a specific form of energy transfer and compare and contrast it with other forms of energy transfer.</td>
</tr>
<tr>
<td></td>
<td>7.2.4b PS The teacher will understand the 1st law of thermodynamics and be able to apply it to simple cases.</td>
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<tr>
<td></td>
<td>7.2.4c PS The teacher will be able to render a statement of and understand the need for the 2nd law of thermo-dynamics.</td>
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<tr>
<td></td>
<td>7.2.4d PS The teacher will understand the basic principles upon which heat engines and refrigerators operate and apply these principles to real world machines.</td>
</tr>
<tr>
<td></td>
<td>7.2.4e PS The teacher will be familiar with the property of entropy, on both a phenomenological and statistical level, and be able to apply it to simple cases.</td>
</tr>
<tr>
<td>7.2.2 CK The teacher understands Temperature and the Kinetic Theory of Matter.</td>
<td>7.2.5a PS The teacher will be familiar with and be able to utilize the phenomenological definition of temperature.</td>
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<td></td>
<td>7.2.5b PS The teacher will be able to develop the mathematical relationships governing thermal expansion and be able to apply them to simple cases involving linear and volume expansion.</td>
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<tr>
<td></td>
<td>7.2.5c PS The teacher will understand Charles’, Gay Lussac’s, and the ideal gas laws and be able to apply them to simple situations.</td>
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<tr>
<td></td>
<td>7.2.5d PS The teacher will be able to use Charles’ and Gay Lussac’s laws to demonstrate the existence of an absolute zero temperature and construct the Kelvin and Rankine temperature scales accordingly.</td>
</tr>
<tr>
<td></td>
<td>7.2.5e PS The teacher will utilize the postulates of the kinetic theory of gases to develop the ideal gas law.</td>
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<tr>
<td></td>
<td>7.2.5f PS The teacher will understand that a group of molecules exhibits a range of kinetic energy values at any given temperature, that this range is statistically described by the Maxwell-Boltzmann distribution, and relate their absolute temperature to their average kinetic energy.</td>
</tr>
<tr>
<td>7.2.3 CK The teacher understands Heat Exchange and Transfer.</td>
<td>7.2.6a PS The teacher will demonstrate that the gain or loss of heat on the part of a system results in a temperature change and/or change(s) in state.</td>
</tr>
<tr>
<td></td>
<td>7.2.6b PS The teacher will understand the nature of heat capacities and latent heats and be able to use them to carry out simple heat exchange calculations, such as those related to calorimeter measurements.</td>
</tr>
<tr>
<td></td>
<td>7.2.6c PS The teacher will understand the nature of heat transfer by conduction and be able to calculate the rate of heat transfer through a material using its thermal conductivity.</td>
</tr>
<tr>
<td></td>
<td>7.2.6d PS The teacher will understand the nature of heat transfer by convection and differentiate between natural and forced convection.</td>
</tr>
<tr>
<td></td>
<td>7.2.6e PS The teacher will understand the nature of heat transfer by radiation and be able to calculate the rate of heat transfer from an object at a specific absolute temperature and the net rate at which it exchanges heat with its surroundings at a different absolute temperature using its emissivity and the Stefan-Boltzmann constant.</td>
</tr>
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</table>
**Standard 8: Electricity and Magnetism: The physics teacher demonstrates a solid grasp of electricity and magnetism.**

**Function 1: The teacher of physics understands and can apply knowledge of Fields.**

<table>
<thead>
<tr>
<th>Content Knowledge</th>
<th>Professional Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.1.1 CK The teacher understands Electric Charge.</td>
<td>8.1.6 PS The teacher should understand that there are two signs of charge, and that charge is conserved.</td>
</tr>
</tbody>
</table>
| 8.1.2 CK The teacher understands Electric Forces. | 8.1.7a PS The teacher should be able to find the force on a point charge due to several other point charges using Coulomb's law.  
8.1.7b PS The teacher should know the force on a charge in an electric field |
| 8.1.3 CK The teacher understands Electric Fields. | 8.1.8a PS The teacher should be able to find the electric field at a point in space due to several point charges by adding the electric fields from the point charges at the point in space.  
8.1.8b PS The teacher should be able to use find the electric field at a point in space due to simple charge distributions by summing up the electric field at the point in space from each element of the charge distribution.  
8.1.8c PS The teacher should be able to use Gauss law to find the electric field due to a cylindrically symmetric charge distribution, due to a spherically symmetric charge distribution, and due to a plane of charge.  
8.1.8d PS The teacher should understand the relation between electric field and electric potential, and given a simple electric field, should be able to find the electric potential difference between two points in space.  
8.1.8e PS The teacher should understand the relation between electric field, electric potential, and the potential energy of a charge in an electric field.  
8.1.8f PS The teacher should understand how a changing magnetic field induces an electric field (Faraday’s law). In particular, given a changing magnetic field through a loop, the teacher should be able to find the induced electric field around the loop. |
| 8.1.4 CK The teacher understands Magnetic Fields. | 8.1.9a PS The teacher should understand that magnetic field lines form loops, and that there are no magnetic monopoles.  
8.1.9b PS The teacher should understand the direction and magnitude of the force on a moving charge in a static magnetic field. |
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>8.1.9c PS The teacher should be able to calculate the force on a current carrying wire in a static magnetic field. The teacher should be able to use Ampere’s law to calculate the magnetic field due to a current carrying wire, in a current carrying solenoid, and in a toroid.</td>
<td>8.1.9d PS The teacher should be able to calculate the force between parallel current-carrying wires.</td>
</tr>
<tr>
<td>8.1.9e PS The teacher should understand how a changing magnetic flux through a loop induces an EMF around the loop (Faraday’s law).</td>
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<tr>
<td>8.1.10a PS The teacher should understand that a changing electric field induces a magnetic field.</td>
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<tr>
<td>8.1.10b PS The teacher should have a qualitative understanding of how a changing magnetic field inducing an electric field, and changing electric field inducing a magnetic field can give rise to an electromagnetic wave.</td>
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<tr>
<td>8.1.10c PS The teacher should understand that the EM wave in a vacuum travels with the speed of light.</td>
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<tr>
<td>8.1.10d PS The teacher should understand the concepts of polarization of an EM wave, wavelength, wavenumber, frequency and angular frequency of the wave.</td>
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<tr>
<td>8.1.10e PS The teacher should understand the terminology involved with discussing the EM spectrum (that radio waves have longer wavelength than infrared, etc.).</td>
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**Function 2: The teacher of physics understands and can apply knowledge of Circuits.**

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<thead>
<tr>
<th>Content Knowledge</th>
<th>Professional Skills</th>
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<tbody>
<tr>
<td>8.2.1 CK The teacher understands Ohm's Law.</td>
<td>8.2.3a PS The teacher should be able to use Ohm’s law to find the voltage drop across a resistor given a current.</td>
</tr>
<tr>
<td></td>
<td>8.2.3b PS The teacher should understand the relation between charge on a capacitor plate and the voltage drop across a capacitor.</td>
</tr>
<tr>
<td></td>
<td>8.2.3c PS The teacher should understand batteries, and an ideal EMF.</td>
</tr>
<tr>
<td>8.2.2 CK The teacher understands Kirchoff’s laws.</td>
<td>8.2.4a PS The teacher should understand that in any circuit, the sum of voltage drops around a circuit loop is zero, and that the sum of currents going in to any junction in the circuit is zero.</td>
</tr>
<tr>
<td></td>
<td>8.2.4b PS The teacher should understand how resistors add in parallel and in series.</td>
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</tbody>
</table>
8.2.4c PS The teacher should understand how capacitors add in parallel and in series.

8.2.4d PS The teacher should be able to find energy stored in a capacitor or and inductor.

8.2.4e PS The teacher should understand how inductors add in parallel and in series.

8.2.4f PS The teacher should be able to use Kirchoff’s laws to find the current through a resistor, or voltage drop across a resistor in a circuit involving loops with resistors in parallel and in series and an EMF.

8.2.4g PS The teacher should understand the time behavior of charging and discharging RC circuits.

8.2.4h PS The teacher should understand the relation between the changing current in an inductor and the voltage drop across an inductor.

8.2.4i PS The teacher should understand the behavior of LR circuits.

8.2.4j PS Given simple AC circuits, the teacher should be able to calculate the phase and amplitude of the voltage across a particular element.

8.2.4k PS The teacher should understand how transformers work, and how they change the voltage amplitude in an AC circuit according to the number of windings on the primary and secondary coils.

Function 3: The teacher of physics understands and can apply knowledge of Geometric Optics, Waves, and Polarization.

<table>
<thead>
<tr>
<th>Content Knowledge</th>
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<tbody>
<tr>
<td>8.3.1 CK The teacher understands Geometric Optics.</td>
<td>8.3.4a PS The teacher should understand the concept of rays.</td>
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<tr>
<td></td>
<td>8.3.4b PS The teacher should understand the index of refraction.</td>
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<td></td>
<td>8.3.4c PS The teacher should understand angles of incidence, angles of refraction and angles of reflection.</td>
</tr>
<tr>
<td></td>
<td>8.3.4d PS The teacher should be able to find the angle of refraction using Snell’s law knowing index of refraction.</td>
</tr>
<tr>
<td></td>
<td>8.3.4e PS The teacher should be able to draw ray diagram for thin lenses, and draw principle rays to find an image given an object.</td>
</tr>
</tbody>
</table>
8.3.4f PS The teacher should be able to use the lens maker equation to find image distance given a focal length of the lens.

8.3.4g PS The teacher should be able to draw the ray diagram for spherical mirrors.

8.3.4h PS The teacher should be able to use geometrical optics to understand optical instruments, particularly the eye.

8.3.2 CK The teacher understands Waves.

8.3.5a PS The teacher should understand how Huygen’s principle gives interference and diffraction phenomenon.

8.3.5b PS The teacher should be able to find interference maxima and minima for double slit interference.

8.3.5c PS The teacher should be able to find diffraction minima for single slit interference.

8.3.5d PS The teacher should be able to find interference maxima for a diffraction grating.

8.3.3 CK The teacher understands Polarization.

8.3.6a PS The teacher should understand the polarization and intensity of light passing through multiple polarizers.

8.3.6b PS The teacher should qualitatively understand polarization by reflection, and Brewster’s angle.

| Standard 9: Curricular Content Knowledge in Modern Physics: The teacher of physics demonstrates understanding of basic concepts and applications of 20th century discoveries in the fundamental views of space, time, and the wave nature of matter, collectively termed Modern Physics. |
| Function 1: The teacher of physics knows the historical development, interpretation, major effects, and recent applications of the principles of relativity as specified in the Special and General Theories. |
| **Content Knowledge** | **Professional Skills** |
| 9.1.1 CK The teacher applies transformation equations correctly for different inertial frames of reference and interprets what these transformations mean to observers in each frame. | 9.1.3a PS The teacher can show how the two postulates of Special Relativity led to the Lorentz transformation equations. |
| 9.1.3b PS The teacher calculates time dilation and length contraction for different inertial frames of reference, contrasts them with Galilean transformations, and can specify conditions leading to the so-called twin paradox. | 9.1.3c PS The teacher describes conditions for wavelength shifts in light due to high relative speeds and calculates these shifts for specific inertial frames of reference. |
| 9.1.3d PS The teacher correctly adds relativistic speeds for different frames of reference. |
| 9.1.3e PS The teacher calculates mass/energy equivalences for various energetic processes, such as nuclear fission, fusion reactions, or stellar explosions. |

9.1.2 CK The teacher qualitatively explains how gravitational forces arise from curvature of space and time in the presence of mass, and how this creates observed effects in non-inertial frames of reference.

9.1.5a PS The teacher describes the equivalence between gravity and acceleration in non-inertial frames.

9.1.5b PS The teacher describes how either gravity or acceleration can produce various non-inertial effects, including red/blue shifts in light, time dilation, length contraction, bending of light, and precession of Mercury’s orbit.

9.1.5c PS The teacher qualitatively explains the circumstances that require relativistic corrections to clocks on satellites used for GPS.

**Function 2: The teacher of physics knows the historical development, interpretation, key concepts, major effects, and further applications of the principles of quantum mechanics.**

<table>
<thead>
<tr>
<th><strong>Content Knowledge</strong></th>
<th><strong>Professional Skills</strong></th>
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</table>

| 9.2.1 CK The teacher quantitatively explains how analysis of blackbody radiation and the photoelectric effect led to the concept of quantization of dynamical variables and the Bohr model of the hydrogen atom. | 9.2.5a PS The teacher explains how the introduction of Planck’s constant into Rayleigh’s derivation of the distribution of wavelengths, solved the problem at short wavelengths but implied the restriction of light to wave packets. |
| | 9.2.5b PS The teacher calculates key parameters of the Planck distribution of wavelengths for a black body as a function of absolute temperature, including Stephen’s Law for total radiated power and Wien’s Displacement Law for the peak of the distribution. |
| | 9.2.5c PS The teacher calculates wavelengths for the spectrum of hydrogen using Bohr’s energy levels and reduced mass to reproduce the Rydberg formula. |
| | 9.2.5d PS The teacher calculates de Broglie wavelengths for combinations of mass and speed to demonstrate that Bohr’s quantization of momentum was equivalent to integer multiples of wavelength. |
| | 9.2.5e PS Using appropriate wave functions, the teacher calculates probability densities and energy levels for bound states in simple one dimensional potentials. |
| | 9.2.5f PS The teacher normalizes basic wave functions. |
| 9.2.2 CK The teacher applies the Schroedinger Equation to simple systems in one dimension. | 9.2.6a PS Using appropriate wave functions, the teacher calculates transmission and reflection coefficients for simple one dimensional potential barriers. |
9.2.6b PS The teacher calculates probability densities, energy levels, and transitions for the Simple Harmonic Oscillator problem and applies these to molecular vibrations.

9.2.3 CK The teacher applies the time independent Schroedinger Equation to the hydrogen atom.

9.2.7a PS The teacher explains how separation of variables is used to split the general solution for the Coulomb potential into three parts, each with a quantum number: a radial function that indexes the energy level, an angular momentum function, and a magnetic moment.

9.2.7b PS The teacher uses normalized hydrogen functions to calculate probability densities, expectation values, and transition probabilities for the electric dipole.

9.2.7c PS The teacher uses the concepts of intrinsic spin, anti-symmetric waves functions, and Pauli Exclusion to explain anomalous Zeeman splitting in hydrogen spectra.

9.2.4 CK The teacher generalizes the quantum model of hydrogen to multi-particle systems, including larger atoms, molecules, and nuclei.

9.2.8a PS Based on the structure of hydrogen states, the Pauli Exclusion Principle, and spin-orbit interactions, the teacher explains key properties and ordering of elements in the Periodic Table.

9.2.8b PS Based on key differences in properties between particles with integer and half-integer spins, the teacher calculates appropriate energy distributions, either Fermi-Dirac, Bose-Einstein, or Maxwell-Boltzmann, for systems of identical particles in thermal equilibrium and lists examples of systems where each type of distribution is appropriate.

9.2.8c PS The teacher explains properties of ionic, covalent, and metallic molecular bonds.

9.2.8d PS The teacher describes key phenomena resulting from the energy level structure in nuclei, including radioactive decay modes and calculations based on the concept of half-life; ionizing emissions and detector technology; nuclear reactions, induced activity, and the probabilistic concept of reaction cross section; fission, fusion, where they occur naturally, and their modern applications.

Standard 10: General Science, Engineering, & Technology: The physics teacher demonstrates an understanding of the cross curricular ties between physics, life science, earth science, engineering, and technology

Function 1: The teacher of physics demonstrates an understanding of life science and how it applies to the physics content area.

<table>
<thead>
<tr>
<th>Content Knowledge</th>
<th>Professional Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.1.1 CK The teacher is qualitatively able to apply the laws of conservation to energy flow through earth systems.</td>
<td>10.1.4a PS The teacher will be able to utilize the concept of conservation of energy and how it applies to organisms in their environments.</td>
</tr>
<tr>
<td>Function 2: The teacher of physics understands and applies physics to the field of earth science and astronomy.</td>
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<td>---------------------------------------------------------------</td>
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<tr>
<td><strong>Content Knowledge</strong></td>
<td><strong>Professional Skills</strong></td>
</tr>
<tr>
<td>10.1.4b PS The teacher will be able to utilize the concept of</td>
<td>10.1.5a PS The teacher will be able to utilize concepts from</td>
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<tr>
<td>conservation of energy and how it applies to ecosystems.</td>
<td>Newtonian physics to explain the mechanics involved in</td>
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<tr>
<td></td>
<td>biological systems.</td>
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<tr>
<td>10.1.2 CK The teacher applies Newton’s Laws to the field of</td>
<td>10.1.5b PS The teacher will apply knowledge of mechanics</td>
</tr>
<tr>
<td>biology through the use of biomechanics.</td>
<td>principles to devices found within the life sciences.</td>
</tr>
<tr>
<td>10.1.5a PS The teacher will be able to utilize concepts from</td>
<td>10.1.6a PS The teacher will demonstrate an understanding of</td>
</tr>
<tr>
<td>Newtonian physics to explain the mechanics involved in</td>
<td>how evolution is dependent upon physical constraints and</td>
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<tr>
<td>biological systems.</td>
<td>must obey natural laws including conservation of energy and</td>
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<td></td>
<td>thermodynamics.</td>
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<tr>
<td>10.1.5b PS The teacher will apply knowledge of mechanics</td>
<td>10.1.6b PS The teacher demonstrates understanding of basic</td>
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<tr>
<td>principles to devices found within the life sciences.</td>
<td>genetics including DNA and RNA and how it can be used to</td>
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<td>alter genetics such as in crops.</td>
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<tr>
<td>10.1.6c PS The teacher demonstrates an understanding of the</td>
<td>10.1.6c PS The teacher demonstrates an understanding of the</td>
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<tr>
<td>process of DNA replication and how this allows cells to</td>
<td>process of DNA replication and how this allows cells to</td>
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<tr>
<td>reproduce.</td>
<td>reproduce.</td>
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<tr>
<td>10.1.3 CK The teacher applies the unifying principles of</td>
<td>10.2.1 CK The teacher explains how principles of dynamics</td>
</tr>
<tr>
<td>biology to the field of physics.</td>
<td>relate to earth system science.</td>
</tr>
<tr>
<td>10.2.3a PS The teacher will demonstrate understanding of the</td>
<td>10.2.2 CK The teacher explains how principles of thermodynamics relate to earth system science.</td>
</tr>
<tr>
<td>Earth’s energy budget and relate this to conservation of</td>
<td>10.2.3a PS The teacher will demonstrate understanding of the Earth’s energy budget and relate this to conservation of energy.</td>
</tr>
<tr>
<td>energy.</td>
<td>10.2.3b PS The teacher will demonstrate how earth systems interact and apply this knowledge to situations involving interaction between the geosphere, biosphere, atmosphere, and hydrosphere.</td>
</tr>
<tr>
<td>10.2.3b PS The teacher will demonstrate how earth systems</td>
<td>10.2.3c PS The teacher will be able to demonstrate</td>
</tr>
<tr>
<td>interact and apply this knowledge to situations involving</td>
<td>understanding of the atmospheric energy budget in terms of</td>
</tr>
<tr>
<td>interaction between the geosphere, biosphere, atmosphere,</td>
<td>conservation of energy in a system.</td>
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<tr>
<td>and hydrosphere.</td>
<td>10.2.3d PS The teacher will apply the basic concepts of fluid dynamics to atmospheric dynamics.</td>
</tr>
<tr>
<td>10.2.3c PS The teacher will be able to demonstrate</td>
<td>10.2.3e PS The teacher will be able to apply knowledge of fluid dynamics and conservation of energy within earth systems to explain ocean systems.</td>
</tr>
<tr>
<td>understanding of the atmospheric energy budget in terms of</td>
<td>10.2.3f PS The teacher will demonstrate understanding of</td>
</tr>
<tr>
<td>conservation of energy in a system.</td>
<td>climate control factors and how this relates to ocean</td>
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<tr>
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<td>systems.</td>
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</tbody>
</table>
10.2.3g PS The teacher will apply law of motion to Earth dynamics and relate this in several ways through plate tectonics.

10.2.2 CK The teacher is able to qualitatively and quantitatively relate the field of physics to the world of astronomy.

10.2.4a PS The teacher will demonstrate an understanding of the different types of galaxies by comparing and contrasting.

10.2.4b PS The teacher will demonstrate understanding of star formation and solar evolution using the H-R diagram.

10.2.4c PS The teacher will apply the knowledge of the natural laws at work in the Milky Way to the other galaxies in our universe.

10.2.4d PS The teacher will apply knowledge of the universal forces to the galaxies in our universe.

10.2.4e PS The teacher is able to demonstrate understanding that dark matter in our universe is causing the rate of expansion of the universe to accelerate and may continue to expand forever.

10.2.4f PS The teacher is able to demonstrate an understanding of the evolution of technology in astronomy and its relationship to the formation of our current models of the solar system and universe.

10.2.4g PS The teacher will describe how objects create distortions in space time and that the force of gravity is the motion of an object on distorted space time and how this relates to the big bang theory and the structure of the universe.

10.2.4h PS The teacher demonstrates an understanding of the use of observational and theoretical astrophysics to explain the physical properties, interactions and behavior of physics in the universe.

Function 3: The teacher of physics understands and can apply the principles of physics to engineering and technology.

<table>
<thead>
<tr>
<th>Content Knowledge</th>
<th>Professional Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.3.1 CK Application of waves for information is applied to the field of physics and wave motion.</td>
<td>10.3.4a PS The teacher is able to demonstrate an understanding and show how to build an antenna for the use of coding and decoding information sent through waves.</td>
</tr>
<tr>
<td></td>
<td>10.3.4b PS The teacher is able to describe wave modulation through both frequency and amplitude changes and the benefits to encoding information using each method.</td>
</tr>
<tr>
<td>10.3.4c PS</td>
<td>The teacher is able to explain the electromagnetic spectrum and the uses for each wave in society.</td>
</tr>
<tr>
<td>10.3.4d PS</td>
<td>The teacher will demonstrate understanding of the use of signaling using electromagnetic waves.</td>
</tr>
<tr>
<td>10.3.4e PS</td>
<td>The teacher is able to explain the use of fiber optics to transfer information using a coherent light source.</td>
</tr>
</tbody>
</table>

| 10.3.2 CK | The teacher applies information on digital circuits to programming. |
| 10.3.5a PS | The teacher will demonstrate understanding of digital circuits through programming. |
| 10.3.5b PS | The teacher will demonstrate understanding of digital circuits by building circuits including an op-amp. |

| 10.3.3 CK | The teacher is able to explain how technology and engineering connect through all fields of physics and related sciences. |
| 10.3.6a PS | The teacher demonstrates and understanding of the use of technology in society and how it has influenced changes in the field of science. |
| 10.3.6b PS | The teacher applies the principles of physics to engineering design problems. |
PREVIOUS PROGRAM STANDARDS

PHYSICS
Early Adolescence through Late Adolescence
Grades 6-12

Standard #1  The teacher of physics demonstrates an understanding of the relationships between motions and forces.

Knowledge
1. The teacher knows that the motion of an object can be described in terms of its displacement, position, velocity, momentum, and acceleration.
2. The teacher understands Newton’s three laws of motion.
3. The teacher understands the concept of mechanical energy and that it can be classified as potential or kinetic.
4. The teacher knows that gravitation is a relatively weak, attractive force that acts upon and between any two masses.
5. The teacher knows that electric force is the attraction or repulsion that exists between two charged particles. Its magnitude is vastly greater than that due to gravity.
6. The teacher knows that electricity and magnetism are two aspects of a single electromagnetic force.

Performance
1. The teacher can utilize the content in this standard at a substantially greater depth than the level taught to students.

Standard #2  The teacher of physics demonstrates an understanding of the conservation of mass and energy, and that the overall disorder of the universe is increased during every chemical and physical change.

Knowledge
1. The teacher knows that the mass/energy of the universe is constant.
2. The teacher understands that energy comes in many forms like gravitational, mechanical, electrical, magnetic, chemical, nuclear, radiative, solar, thermal, etc., and that it can be transformed between these forms.
3. The teacher knows that heat is the energy transferred from objects at higher temperature to objects at lower temperature.
4. The teacher knows that closed systems tend to become less organized and more disordered with time.
5. The teacher understands the basic laws and concepts of thermodynamics.
6. The teacher knows the thermal properties of matter and the modes of heat transfer.
7. The teacher knows that in nuclear reactions, and other situations, mass can be transformed to energy and vice-versa.

Performance
1. The teacher can utilize the content in this standard at a substantially greater depth than the level taught to students.
Standard #3  The teacher of physics demonstrates an understanding of the basic interactions of matter and energy.

Knowledge
1. The teacher understands basic wave theory.
2. The teacher knows that electromagnetic waves result when a charged object is accelerated.
3. The teacher knows that each kind of atom or molecule can gain or lose energy only in particular discrete amounts.
4. The teacher knows that electrons flow easily in some conductors (such as metals), meet resistance in others (such as glass), and have intermediate behavior in semiconducting materials.
5. The teacher knows basic atomic structure, nuclear structure and quantum mechanics.
6. The teacher knows the concepts of general and special relativity.
7. The teacher knows the photon theory of light and basic optics.
8. The teacher knows the basics of electrical circuits.

Performance
1. The teacher can utilize the content in this standard at a substantially greater depth than the level taught to students.

Standard #4  The teacher of physics demonstrates an understanding of the nature of inquiry and the ability necessary to help students do scientific inquiry.

Knowledge
1. The teacher understands the nature of scientific inquiry.

Performance
1. The teacher develops, through experiences, a rich understanding and curiosity of the natural (material) world.
2. The teacher develops questions and demonstrates an understanding of the concepts that guide scientific investigations.
3. The teacher designs and conducts scientific investigations.
4. The teacher uses technology and mathematics to improve investigations and communications.
5. The teacher formulates and revises scientific explanations and models using logic and evidence.
6. The teacher recognizes and analyzes alternative explanations and models.
7. The teacher communicates and defends a scientific argument.
8. The teacher plans and implements activities with different structures for inquiry including inductive (exploratory), correlational and deductive (experimental) studies.
9. The teacher uses questions to encourage inquiry and probe for divergent student responses, encouraging student questions, and responding with questions when appropriate.
10. The teacher encourages productive peer interactions and plans both individual and small group activities to facilitate inquiry.
11. The teacher plans and implements data-based activities requiring students to reflect upon their findings, make inferences, and link new ideas to preexisting knowledge.

Standard #5  The teacher of physics demonstrates an understanding of the basic relationships between science and technology.
Knowledge
1. The teacher understands that creativity, imagination, and a broad knowledge base are all required in the work of science and engineering.
2. The teacher knows that scientists in different disciplines ask different questions, use different methods of investigation, and accept different types of evidence to support their explanations.
3. The teacher knows that progress in science and technology can be affected by social issues and challenges.
4. The teacher knows that science and technology are pursued for different purposes.
5. The teacher knows that science advances new technologies. New technologies open new areas for scientific inquiry.
6. The teacher knows that scientific knowledge is made public through presentation at professional meetings and publications in scientific journals, while technological knowledge is often not shared for a variety of reasons.
7. The teacher knows that science and technology are essential components of modern society. Science and technology indicate what can happen, not what should happen. The latter involves human decisions about the use of knowledge.
8. The teacher understands that basic concepts and principles of science and technology should precede active debate about the economics, policies, politics, and ethics of various challenges related to science and technology.

Performance
1. The teacher can demonstrate the basic relationship between physics and technology.

Standard #6 The teacher of physics demonstrates an understanding of science as a human endeavor, of the nature of science, and of science from historical perspectives.

Knowledge
1. The teacher has first-hand knowledge of how to engage in extended science inquiry in a laboratory setting. Just as preservice teachers need to engage in practice teaching, they need to engage in practicing science.
2. The teacher has an understanding of science as both vocation and avocation.
3. The teacher recognizes the universality of basic science concepts and the influence of personal and cultural beliefs that embed science in society.
4. The teacher recognizes that society helps create the ways of thinking (mindsets) required for scientific advances, both toward training scientists and the education of a populace to utilize benefits of science (e.g., standards of hygiene, attitudes toward forces of nature, etc.).
5. The teacher recognizes society’s role in supporting topics of research and determining institutions where research is conducted.

Performance
1. The teacher relates science content to the real world.
2. The teacher links the study of physics to career opportunities.
3. The teacher explains how science uses peer review, replication of methods, and norms of honesty.
4. The teacher demonstrates an understanding of the nature of scientific knowledge and that science is a way of knowing.
5. The teacher explains the rules of evidence and can distinguish characteristics of knowledge in science from rules and knowledge in other disciplines.
6. The teacher explains and provides examples of conventions for research, evidence and explanation, distinguishing laws, theories, and hypotheses.
7. The teacher explains the history of science, including the historical development of current science theories and knowledge.
8. The teacher demonstrates an understanding of how to use mathematics and statistics to analyze and interpret data in the context of science.
9. The teacher demonstrates an ability to do limited but original research in science.

Standard #7 The teacher of physics demonstrates an understanding of the concepts and processes unifying science domains.

Knowledge
1. The teacher understands how the concepts and processes of system, order and organization; evidence, models and explanation; constancy, change and measurement; patterns of cumulative change; and form and function, unify the various domains of science.
2. The teacher demonstrates a basic understanding of the basic concepts and principles of biology, chemistry, and earth and space science as they relate to understanding physics.

Performance
1. The teacher relates science concepts to each other and even to ideas in other academic areas.
2. The teacher understands how the knowledge and mastery of each concept of physics grows and develops across the grade levels and adjusts instruction accordingly.
3. The teacher explains, answers questions, guides inquiry, generalizes accurately, and mentors and guides advanced students who need and benefit from the enrichment of their lessons due to the greater personal knowledge of physics than that expected of students.

Standard #8 The teacher of physics demonstrates an understanding of and an ability to teach science effectively.

Knowledge
1. The teacher understands how students learn science concepts and develop the abilities of science inquiry.
2. The teacher understands the abilities and developmental readiness of students to learn physics content and skills.
3. The teacher understands how to use appropriate applications of advanced technologies in teaching science.

Performance
1. The teacher identifies common student misconceptions in science, their source, and an appropriate teaching response.
2. The teacher provides the opportunity for student discovery and application of knowledge.
3. The teacher plans and uses science teaching strategies and models appropriate for learners with diverse backgrounds, abilities, and learning styles.
4. The teacher encourages students to develop scientific reasoning, critical thinking, and problem solving skills.
5. The teacher designs and adapts procedures and protocols for students to plan, execute, and communicate the results of laboratory and field-based studies in physics.
6. The teacher demonstrates the ability to effectively engage students in learning science, both individually and in-group work of various kinds.
7. The teacher facilitates student planned and conducted investigations.
Standard #9  The teacher of physics enacts a science curriculum that integrates content within the sciences and among other disciplines.

Knowledge
1. The teacher understands national and state standards for science education.
2. The teacher understands the importance of the district and school framework of goals, plans, materials, and resources for enacting quality science instruction.
3. The teacher is familiar with high-quality curricular materials in science.
4. The teacher knows several strategies for developing integrated units with science as the connecting theme.
5. The teacher knows where and how to access appropriate materials for conducting science investigations with students.

Performance
1. The teacher relates instructional goals, materials, and actions to state and national science education standards, analyzing strengths and weaknesses in a particular classroom context.
2. The teacher identifies, evaluates, and selects a diverse set of appropriate and potentially useful instructional materials in science from a variety of sources including the World Wide Web.
3. The teacher develops and implements course plans, unit plans, and lesson plans with clear rationales, goals, methods, materials, and assessments.
4. The teacher creates learning experiences that integrate subject matter within the science disciplines and with other subjects using real life problems.
5. The teacher designs and implements learning activities that thematically relate science with other school subjects and community resources.
6. The teacher fosters student development and application of skills in language arts and mathematics in learning science.
7. The teacher demonstrates an awareness of current science curriculum issues and resources.

Standard #10  The teacher of physics understands how to relate science to the daily lives and interests of students and to a larger framework of human endeavor and understanding.

Knowledge
1. The teacher is aware of social and political issues in the community that are dependent upon an understanding of physics.
2. The teacher understands how physics concepts and processes are used in real life situations.
3. The teacher understands and relates the application of physics concepts to technological, societal, and cultural issues.

Performance
1. The teacher engages students in activities and projects in which they examine important social or technological issues related to physics.
2. The teacher engages students in investigating local science and technological issues.
3. The teacher instructs students in the processes of decision-making about science and technological issues and applications.
4. The teacher relates physics to the interest of students, to potential careers, and to knowledge in other domains.

Standard #11  The teacher of physics assesses students’ educational progress through a variety of methods.

Knowledge
1. The teacher knows how to align standards, goals, instruction, outcomes, and assessments in physics.
2. The teacher knows a variety of assessment strategies to evaluate the cognitive, psychomotor, social, and personal development of the learner in all aspects of physics.

3. The teacher knows techniques for identifying prior knowledge of physics concepts and abilities that lead students to construct new understandings.

**Performance**

1. The teacher uses the most appropriate methods for gathering information about student learning aligned with instructional goals and based on student characteristics, needs, and abilities.

2. The teacher demonstrates the ability to use multiple strategies to assess teaching and learning authentically consistent with national standards and goals for physics education.

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**Standard #12** The teacher of physics designs and manages safe and supportive learning environments.

**Knowledge**

1. The teacher understands the elements of a safe environment in all areas related to physics instruction.

2. The teacher understands liability and negligence, especially as it applies to physics teaching.

3. The teacher understands how to design, adapt, and use physical space, the outdoors, equipment, and resources to establish a positive learning environment.

4. The teacher understands the psychological and social environment conducive to the students’ intellectual, social, and personal growth in physics education.

5. The teacher understands the norms and values of a science learning community.

**Performance**

1. The teacher sets up procedures for safe handling, labeling, storage, and disposal of chemicals, electrical equipment, and science materials.

2. The teacher takes appropriate actions to prevent accidents in the laboratory and field.

3. The teacher follows appropriate procedures for reporting an emergency.

4. The teacher establishes the elements of an exciting and stimulating environment for physics.

5. The teacher establishes a productive learning community in the physics classroom.

6. The teacher plans and develops opportunities for students to learn from resources, events, and displays in the environment.

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**Standard #13** The teacher of physics improves teaching through ongoing professional practice.

**Knowledge**

1. The teacher understands the ethical standards and responsibilities of a professional science teacher.

2. The teacher is aware of the professional organizations and professional development opportunities available to support physics teachers.

**Performance**

1. The teacher accepts responsibility for working collaboratively with students, members of the community, and other educators to improve science education.

2. The teacher develops and states personal goals and philosophy of teaching based on research and contemporary values of the science education community.

3. The teacher becomes involved in professional science education activities and shares knowledge and ideas with colleagues.
Crosswalk: Previous versus New Foreign Language (PreK-12) Standards

General Information about this Revision:

- This set of standards will help our educators prepare their learners to succeed in the future global workforce, whether capitalizing on technology to access the global community or interacting with people and businesses of many cultural and linguistic backgrounds within our state borders. These align with the Kansans CAN Talking Points of Vision and Flexibility.
- The new standard 1 focuses more on the candidates’ language proficiency at acceptable levels to enable the classroom instruction to be conducted primarily in the target language which research and experts in the field indicate is the ideal method. Standards 2-7 focus on the application of language acquisition strategies in the classroom setting. Standard 8 focuses on the professional collaboration and advocacy necessary for 21st century teachers.
- The total number of standards was reduced where they overlapped and a standard specifically addressing assessment was added.
- These standards were developed by a wide range of experts from within various levels of education in Kansas drawing on current language acquisition best practices research and aligned with the Kansas World Language Standards, ACTFL/CAEP Program Standards for the Preparation of Foreign Language Teachers, and InTASC Standards for the Initial Preparation of Teachers of Foreign Languages.

<table>
<thead>
<tr>
<th>PREVIOUS STANDARDS</th>
<th>NEW STANDARDS</th>
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</table>
| Standard 2 The teacher of a foreign language is proficient in the foreign language. | **Standard 1**: Language Proficiency: Interpersonal, Interpretive, and Presentational | **Additions to:**
| | | Content Knowledge indicators:
| | | Minimal levels of oral proficiency have been identified based on descriptors from the ACTFL Proficiency scale.
| | | Minimum proficiency in written interpersonal and interpretive areas have been left to the state for assessment in each language.
| | | Professional Skills indicators:
FSI/ILR scale, or the equivalent. Minimum level of oral proficiency for Arabic, Chinese, Japanese, and Korean is “Intermediate High” as measured by the ACTFL Proficiency scale, “B1” in the European Framework or “1+” on the FSI/ILR scale, or the equivalent. Minimum proficiency in written interpersonal and interpretive areas will be the cut off scores determined by the state for the assessment in each language.

The previous list of 12 indicators are incorporated into New Standard 1 through established proficiency levels. All modes of communication are now divided into functions, including the presentational mode & use of technology.

### Standard 2

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<th>PREVIOUS STANDARDS</th>
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</table>
| **Standard 1**     | **Standard 2**: Cultures, Linguistics, Literatures, and Interdisciplinary Concepts | *Additions to:*
| The teacher of a foreign language has knowledge in specific areas related to the target language, its literature, and its culture appropriate to the developmental needs and interests of students. | Content Knowledge indicators: All content concepts from Standards 1 & 8 have been retained through more concise language. This standard has shifted from a focus on connecting with local cultures to a focus on accessing authentic target language resources wherever they may exist, whether locally or via technology, as there may not be access to a target language culture within the teacher’s community. This standard echoes the 5 C’s of the National Standards in Foreign Language Education: Communication, Cultures, Connections, Comparisons, and Communities. |
| **Standard 5**     | Candidates select and make accessible authentic and relevant perspectives, products, and practices from the target culture appropriate to the developmental needs and interests of learners. | Professional Skills indicators: All professional skills articulated in the previous Standard 1 are present in the new Standard 2. |
| The teacher of a foreign language demonstrates knowledge of second-language instructional methods, resources, and classroom management techniques conducive to critical and creative thinking. | |
| **Standard 8**     | |
| The teacher of a foreign language integrates knowledge of and encourages interactions with the local cultures and the general school curriculum through a foreign language. | |
The former Standard 5 was too expansive, covering methods, resources, and classroom management. The new Standard 2 keeps the aspect of selection and application of age-appropriate authentic resources, while the methodology and classroom management aspects went into Standards 3 and 7 respectively.

### Standard 3

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| **Standard 3** The teacher of a foreign language demonstrates an understanding of second-language acquisition and its relation to first-language development including the history of second-language education in the United States. | **Standard 3**: Language Acquisition Theories and Instructional Methods for Second Language Learning Candidates demonstrate an understanding of the principles of language acquisition at different stages of learner development and use this knowledge to create linguistically and developmentally appropriate learning experiences. | Additions to:  
Content Knowledge indicators:  
The specificity of the former Standard 3 regarding the history of second-language education and similarities with first-language acquisition has been replaced with the more general objectives of knowledge of a variety of pedagogical approaches and competency in developing focused lessons that skillfully apply selected approaches within the classroom setting.  
Professional Skills indicators  
The previous list of 4 performance indicators in Standard 3 are incorporated into New Standard 3 indicators.  
To simplify Standard 5, the new Standard 3 keeps only the aspect of knowledge of second-language instructional methods. |
<p>| <strong>Standard 5</strong> The teacher of a foreign language demonstrates knowledge of second-language instructional methods, resources, and classroom management techniques conducive to critical and creative thinking. | | |</p>
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<tr>
<th>Standard 4</th>
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<td><strong>PREVIOUS STANDARDS</strong></td>
<td><strong>NEW STANDARDS</strong></td>
<td><strong>Additions to:</strong></td>
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<tr>
<td><strong>Standard 4</strong> The teacher of a foreign language understands how individuals learn and develop and provides foreign learning opportunities that support personal development.</td>
<td><strong>Standard 4</strong>: Planning and Instruction Candidates plan, sequence, and apply a variety of appropriate instructional strategies to develop learners’ knowledge and skills towards meeting the Kansas World Language Standards.</td>
<td><strong>Content Knowledge indicators:</strong> The focus of the new Standard 4 is on understanding the Kansas World Language Standards as well as how learners develop. <strong>Professional Skills indicators:</strong> Standard 4 emphasizes candidates’ ability to plan engaging instructional practices and experiences and sequence and apply instructional skills based on the Kansas World Language Standards. Performance indicators 2, 3, and 4 of the former Standard 4 addressing individual learners’ needs have been moved to the new Standard 6 which focuses on Learner Development and Meeting Diverse Needs.</td>
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<th>Standard 5</th>
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<td><strong>PREVIOUS STANDARDS</strong></td>
<td><strong>NEW STANDARDS</strong></td>
<td><strong>Additions to:</strong></td>
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<tr>
<td>No previous standard</td>
<td><strong>Standard 5</strong>: Assessment of Learning Candidates design formative and summative assessments using authentic target language materials, real-world tasks, and a variety of modes to evaluate learning. Candidates reflect on results of assessments to adjust instruction and communicate results to learners for goal setting.</td>
<td><strong>Content Knowledge indicators:</strong> Candidates understand the importance of ongoing authentic formative and summative assessments in a variety of modes. <strong>Professional Skills indicators:</strong> Candidates understand the value of reflection on the results of assessments and the adjustment of instruction accordingly.</td>
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</table>
**Standard 6**

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</thead>
</table>
| **Standard 4** The teacher of a foreign language understands how individuals learn and develop and provides foreign learning opportunities that support personal development. | **Standard 6:** Learner Development & Meeting Diverse Needs | **Additions to:**
The former Standard 9 knowledge indicators 1-3 about awareness of the diversity of learners’ backgrounds and the candidates’ collaboration with the community to support language learning are now in Standard 6. |
| **Standard 7** The teacher of a foreign language models a variety of effective communication and instructional techniques to address the diverse needs of students. | | **Content Knowledge indicators:**
Indicators addressing diverse learner backgrounds, levels, and needs were previously split between Standards 4 and 7. They are now combined in Standard 6. |
| **Standard 9** The teacher of a foreign language fosters collaborative relationships within the school system and community, particularly those that reflect diverse languages and cultures. | | **Professional Skills indicators:**
Specific IEP and 504 language is now included to ensure candidates are equipped to support learner exceptionality requirements. |
The former standard 7 focused on the candidate just modeling different modalities in class, but candidates are now expected to plan lessons and provide assessments that enable learners to demonstrate proficiency in different modalities that may better fit their learning styles or abilities.

### Standard 7

<table>
<thead>
<tr>
<th>PREVIOUS STANDARDS</th>
<th>NEW STANDARDS</th>
<th>WHAT CHANGED?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standard 5</strong> The teacher of a foreign language demonstrates knowledge of second-language instructional methods, resources, and classroom management techniques conducive to critical and creative thinking.</td>
<td><strong>Standard 7:</strong> Creating a Supportive Learning Environment&lt;br&gt;Candidates create a safe and supportive learning environment motivating learners to engage in positive social interaction and active learning.</td>
<td><strong>Additions to:</strong>&lt;br&gt;<strong>Content Knowledge indicators:</strong>&lt;br&gt;All concepts from Standards 5 and 6 have been retained. The portion of the former Standard 5 referring to knowledge of effective classroom management techniques is now located here in Standard 7.&lt;br&gt;&lt;br&gt;<strong>Professional Skills indicators:</strong>&lt;br&gt;The new Standard 7, Function 3 emphasizes candidates’ ability to help students learn to work productively and cooperatively towards learning goals - similar to the Kansans CAN outcome of “Working Together.” The new standard includes specific language regarding teaching students responsible and respectful technology use in virtual environments.</td>
</tr>
</tbody>
</table>
### Standard 8

<table>
<thead>
<tr>
<th>PREVIOUS STANDARDS</th>
<th>NEW STANDARDS</th>
<th>WHAT CHANGED?</th>
</tr>
</thead>
</table>
| **Standard 9** The teacher of a foreign language fosters collaborative relationships within the school system and community, particularly those that reflect diverse languages and cultures. | **Standard 8**: Professional Development, Advocacy, and Ethics. Candidates will represent World Languages professionally and ethically, collaborating with all stakeholders. | **Additions to:**

**Content Knowledge indicators:**
The new Standard 8 includes all of former Standard 9’s performance indicators.
Functions 1 & 2 in the new standard are new to this document.
Function 1 focuses on candidates’ awareness of avenues for continued professional development and global partnerships.
Function 2 requires candidates to be familiar with data sources relevant to the benefits or uses of multilingual education.

**Professional Skills indicators:**
The candidates use reflective practice and seek further opportunities for personal growth in the target language and culture.
The candidate is now asked to become an advocate for multilingual education in the globalization of the 21st century workforce. |
“Learners” are defined as children including those with disabilities or exceptionalities, who are gifted, and students who represent diversity based on ethnicity, race, socioeconomic status, gender, language, religion, and geographic origin.

**Standard 1: Language Proficiency: Interpersonal, Interpretive, and Presentational**

Candidates in foreign language teacher preparation programs possess proficiency in the target languages they will teach. They are able to communicate effectively in interpersonal, interpretive, and presentational contexts both in written and oral forms at a minimum level. Minimum level of oral proficiency for French, German, Hebrew, Italian, Portuguese, Russian, & Spanish is “Advanced Low” as measured by the ACTFL Proficiency scale, “B2” in the European Frameworks, or “2” on the FSI/ILR scale, or the equivalent. Minimum level of oral proficiency for Arabic, Chinese, Japanese, and Korean is “Intermediate High” as measured by the ACTFL Proficiency scale, “B1” in the European Framework or “1+” on the FSI/ILR scale, or the equivalent. Minimum proficiency in written interpersonal and interpretive areas will be the cutoff scores determined by the state for the assessment in each language.

<table>
<thead>
<tr>
<th>Function 1: Speak in the interpersonal mode of communication at the minimum levels described above.</th>
<th>Content Knowledge</th>
<th>Professional Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1.1 CK Candidates are aware of the levels of proficiency of the interpersonal mode of communication.</td>
<td>1.1.3 PS Candidates initiate, sustain, and bring to closure a wide variety of communicative tasks, including those that require an increased ability to convey meaning with diverse language strategies due to complications or unforeseen events.</td>
<td></td>
</tr>
<tr>
<td>1.1.2 CK Candidates understand the importance of maintaining and advancing skills by creating opportunities for self and learners to have direct and virtual contact with native speakers of the target language.</td>
<td>1.1.4 PS Candidates engage in a variety of formal and informal conversations on practical, social, professional, and abstract topics, using native-like discourse strategies in the target language.</td>
<td></td>
</tr>
</tbody>
</table>

**Function 2: Interpret printed texts, speech, and video by demonstrating literal, figurative, and symbolic comprehension.**

<table>
<thead>
<tr>
<th>Content Knowledge</th>
<th>Professional Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2.1 CK Candidates understand the importance of maintaining and advancing skills by creating opportunities for self and learners to encounter authentic nonfiction texts, web content, videos, and literature.</td>
<td>1.2.2 PS As listeners, candidates understand short conventional narration and description with a clear underlying structure, though comprehension may be uneven. The listener understands the main facts, distinctive viewpoints, and some supporting details.</td>
</tr>
</tbody>
</table>
For readers of target languages that use a Roman alphabet, including classical languages, candidates understand conventional narrative and descriptive texts with a clear underlying structure though comprehension may be uneven. For readers of target languages that use a non-Roman alphabet or characters, candidates understand fully and with ease short, non-complex texts that convey basic information and deal with personal and social topics to which the reader brings personal interest or knowledge.

**Function 3: Present oral and written information to audiences of listeners or readers.**

<table>
<thead>
<tr>
<th>Content Knowledge</th>
<th>Professional Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.3.1 CK In oral communications, candidates demonstrate control of vocabulary, grammatical structures, and pronunciation.</td>
<td>1.3.3 PS Candidates express their own ideas in written and oral forms on practical, social, and professional topics in formal and informal registers in the target language.</td>
</tr>
<tr>
<td>1.3.2 CK In written communications, candidates demonstrate control of vocabulary, grammatical structures, and spelling.</td>
<td>1.3.4 PS Candidates deliver oral presentations without reading notes verbatim. Presentations consist of familiar literary and cultural topics and those of personal interest. They speak in connected discourse using a variety of time frames and vocabulary appropriate to the topic. They use extralinguistic support as needed to facilitate audience comprehension.</td>
</tr>
</tbody>
</table>

**Standard 2: Cultures, Linguistics, Literatures, and Interdisciplinary Concepts**

Candidates select and make accessible authentic and relevant perspectives, products, and practices from the target culture appropriate to the developmental needs and interests of learners.

**Function 1: Demonstrate understanding of cultures relevant to the target language and facilitate comparison of cultures through the perspectives, products, and practices of those cultures.**

<table>
<thead>
<tr>
<th>Content Knowledge</th>
<th>Professional Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1.1 CK Candidates understand cultural realities as dynamic and complex.</td>
<td>2.1.4 PS Candidates develop authentic situations for exploring culture to increase pragmatic, semantic, sociological, and aesthetic understandings.</td>
</tr>
</tbody>
</table>
2.1.2 CK Candidates understand the need to expand their knowledge base of language, history, geography, economics, art, religion, politics, daily living and customs, social sciences, literature, and the origins of the target language.

2.1.3 CK Candidates understand the value of first-hand experiences in the target culture.

2.1.5 PS Candidates engage learners in acquiring, updating, and re-evaluating their knowledge of the target culture.

### Function 2: Demonstrate an understanding of linguistics, the dynamic nature of language, and language systems.

<table>
<thead>
<tr>
<th>Content Knowledge</th>
<th>Professional Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2.1 CK Candidates understand language as dynamic and complex.</td>
<td>2.2.2 PS Candidates present language and culture in contextually meaningful situations.</td>
</tr>
<tr>
<td></td>
<td>2.2.3 Candidates facilitate comparison and contrast of learners’ knowledge of language with the target language.</td>
</tr>
</tbody>
</table>

### Function 3: Use the national and state standards and current technology to select, adapt, and integrate authentic literary and informative sources on cultural themes as well as interdisciplinary topics.

<table>
<thead>
<tr>
<th>Content Knowledge</th>
<th>Professional Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.3.1 CK Candidates are aware of developmentally appropriate authentic sources for literary and informative texts.</td>
<td>2.3.2 PS Candidates scaffold learners’ study of authentic resources, providing vocabulary or contextual support for comprehension.</td>
</tr>
</tbody>
</table>

### Standard 3: Language Acquisition Theories and Instructional Methods for Second Language Learning

Candidates demonstrate an understanding of the principles of language acquisition at different stages of learner development and use this knowledge to create linguistically and developmentally appropriate learning experiences.

### Function 1: Demonstrate an understanding of the theories of second language acquisition.

<table>
<thead>
<tr>
<th>Content Knowledge</th>
<th>Professional Skill</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1.1 CK Candidates understand how articulated language acquisition models (e.g. FLES, FLEX, immersion) lead to different language outcomes.</td>
<td>3.1.3 PS Candidates select and employ a language acquisition model appropriate to the learners and the learning context.</td>
</tr>
</tbody>
</table>
### Function 2: Applies appropriate and effective instructional methods.

<table>
<thead>
<tr>
<th>Content Knowledge</th>
<th>Professional Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.2.1 CK Candidates know a variety of research-based instructional methods for teaching language.</td>
<td>3.2.3 PS Candidates employ appropriate instructional methods to improve learners’ specific linguistic skills.</td>
</tr>
<tr>
<td>3.2.2 CK Candidates understand the role that comprehensible input plays in the language acquisition process.</td>
<td>3.2.4 PS Candidates provide meaningful target language input (ACTFL goal is 90%) and scaffold instruction to assist learners in understanding this input.</td>
</tr>
<tr>
<td>3.2.5 PS Candidates present specific information on gestures and rhythmic properties and how to negotiate meaning.</td>
<td>3.2.6 PS Candidates immerse learners in target language communication through informative, directive, expressive, imaginative, and other interactive means.</td>
</tr>
</tbody>
</table>

### Standard 4: Planning and Instruction

Candidates plan, sequence, and apply a variety of appropriate instructional strategies to develop learners’ knowledge and skills towards meeting the Kansas World Language Standards.

#### Function 1: Demonstrate understanding of the Kansas World Language Standards and sequence learning experiences appropriately.

<table>
<thead>
<tr>
<th>Content Knowledge</th>
<th>Professional Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1.1 CK Candidates know content standards and how they are organized in the curriculum.</td>
<td>4.1.4 PS Candidates explicitly communicate objectives to learners and involve learners in identifying pathways to goal achievement.</td>
</tr>
<tr>
<td>4.1.2 CK Candidates know how content standards relate to other disciplines relevant to their learners’ interests and levels.</td>
<td>4.1.5 PS Candidates integrate cross-disciplinary skills that engage learners in meaningful application of content knowledge.</td>
</tr>
</tbody>
</table>
4.1.3 CK Candidates know how content builds and relates through short-term and long-term learning experiences.

4.1.6 PS Candidates systematically plan lessons and units with short term and long term goals.

**Function 2: Integrate the goals of the state standards in the design of engaging instructional practices and classroom experiences.**

<table>
<thead>
<tr>
<th>Content Knowledge</th>
<th>Professional Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.2.1 CK Understand <em>interpersonal, interpretive, and presentational</em> modes of communication.</td>
<td>4.2.4 PS Candidates integrate 3 modes of communication in instruction.</td>
</tr>
<tr>
<td>4.2.2 CK Candidates know how to evaluate a range of evidence-based instructional strategies, resources, and technological tools for quality, accuracy, and effectiveness.</td>
<td>4.2.5 PS Candidates effectively plan and implement appropriate strategies, resources, and technological tools to meet the instructional goals.</td>
</tr>
<tr>
<td>4.2.3 CK Candidates understand the cognitive processes associated with various kinds of learning (e.g. critical and creative thinking, problem framing and solving, invention, memorization and recall) and how these processes can be stimulated.</td>
<td>4.2.6 PS Candidates engage all learners in developing higher level questioning and meta-cognitive processes, asking questions that serve different purposes (e.g. probing for understanding, helping learners articulate their ideas, stimulating curiosity, and developing their own questions).</td>
</tr>
<tr>
<td>4.2.7 PS Candidates vary their role in the instructional process (e.g. instructor, facilitator, coach, audience) in relation to the content and purposes of the learning experience.</td>
<td></td>
</tr>
</tbody>
</table>

**Standard 5: Assessment of Learning**

Candidates design formative and summative assessments using authentic target language materials, real-world tasks, and a variety of modes to evaluate learning. Candidates reflect on results of assessments to adjust instruction and communicate results to learners for goal setting.

**Function 1: Design and use ongoing authentic performance assessment using a variety of assessment models appropriate for all learners.**

<table>
<thead>
<tr>
<th>Content Knowledge</th>
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</tr>
</thead>
<tbody>
<tr>
<td>5.1.1 CK Candidates understand the range, types, and purposes for summative and formative assessments.</td>
<td>5.1.3 PS Candidates balance the use of formative and summative assessment to support, verify, and document learning.</td>
</tr>
<tr>
<td>5.1.2 CK Candidates know how to design assessments that clearly communicate critical knowledge or skills and performance levels.</td>
<td>5.1.4 PS Candidates design assessments that align with learning objectives and methods while avoiding bias that can distort results.</td>
</tr>
</tbody>
</table>
5.1.5 PS Candidates design a variety of assessments to allow learners multiple ways of demonstrating their knowledge and skill.

5.1.6 PS Candidates prepare learners for assessments and make accommodations in assessments and testing conditions appropriate for all learners.

Function 2: Reflect on and analyze the results of assessments, adjust instruction accordingly, and use data to inform and strengthen subsequent instruction.

<table>
<thead>
<tr>
<th>Content Knowledge</th>
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</tr>
</thead>
<tbody>
<tr>
<td>5.2.1 CK Candidates know how and when to gather specific data for analysis of learner progress towards objectives.</td>
<td>5.2.4 PS Candidates engage learners in assessing their own learning and use this to support learners in developing objectives and pathways to progress toward specific objectives.</td>
</tr>
<tr>
<td>5.2.2 CK Candidates know how to aggregate and disaggregate formative and summative data, identify patterns, and plan for scaffolding, enrichment, or acceleration for individuals or groups of learners.</td>
<td>5.2.5 PS Candidates adjust lesson plans based on assessment information and learner responses.</td>
</tr>
<tr>
<td>5.2.3 CK Candidates know how to effectively and confidentially report specific descriptive feedback on learners’ progress and scores guide learners’ progress toward the learning goals.</td>
<td>5.2.6 PS Candidates collaborate with colleagues in using summative data to evaluate instruction and to inform grade level or content area planning at the building or district level.</td>
</tr>
</tbody>
</table>

Standard 6: Learner Development & Meeting Diverse Needs

Candidates understand patterns of child and adolescent development, recognize individual differences in learners’ learning profiles, and provide foreign language learning opportunities that address the diverse needs of learners.

Function 1: Monitor progress and adjust instruction to address learner strengths and weaknesses.

<table>
<thead>
<tr>
<th>Content Knowledge</th>
<th>Professional Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.1.1 CK Candidates describe the physical, cognitive, emotional, and social developmental characteristics of K-12 learners.</td>
<td>6.1.4 PS Candidates access professional partners, family, community, and online resources to implement relevant learning experiences suitable to the age, gender, culture, skills, and interests of the learners.</td>
</tr>
<tr>
<td>Function 2: Address individual needs of learners with exceptionalities and meet the requirements specified by law.</td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Content Knowledge</strong></td>
<td><strong>Professional Skills</strong></td>
</tr>
<tr>
<td>6.1.2 CK Candidates know how to identify individual learner’s language levels, language backgrounds, learning styles, exceptionalities, and interests.</td>
<td>6.1.5 PS Candidates use multiple forms of communication, models, and representations of concepts and skills.</td>
</tr>
<tr>
<td>6.1.3 CK Candidates understand how cultural and gender differences can affect communication in the classroom.</td>
<td>6.1.6 PS Candidates provide opportunities for learners to demonstrate knowledge and skills in a variety of products and performances.</td>
</tr>
<tr>
<td>6.1.7 PS Candidates access specialized professionals (e.g. special educators, related service providers, language learning specialists, media specialists) to design and deliver appropriate and effective learning experiences to meet unique learning needs.</td>
<td></td>
</tr>
</tbody>
</table>

### Standard 7: Creating a Supportive Learning Environment

Candidates create a safe and supportive learning environment motivating learners to engage in positive social interaction and active learning.

<table>
<thead>
<tr>
<th>Function 1: Create a safe and supportive environment.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Content Knowledge</strong></td>
</tr>
<tr>
<td>7.1.1 CK Candidates understand how learner diversity can affect communication and know how to communicate effectively in differing environments.</td>
</tr>
<tr>
<td>7.1.2 CK Candidates know how to collaborate with learners to establish and monitor elements of a safe and productive learning environment including norms, expectations, routines, and organizational structures.</td>
</tr>
</tbody>
</table>
### Function 2: Motivate learning through engaging activities.

<table>
<thead>
<tr>
<th>Content Knowledge</th>
<th>Professional Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.2.1 CK Candidates understand the relationship between motivation and engagement.</td>
<td>7.2.3 PS Candidates develop age-appropriate learning experiences that actively engage learners in developing their language skills.</td>
</tr>
<tr>
<td>7.2.2 CK Candidates know a variety of age-appropriate engaging instructional strategies related to language learning.</td>
<td>7.2.4 PS Candidates promote responsible use of interactive technologies to develop language skills locally and globally.</td>
</tr>
</tbody>
</table>

### Function 3: Develop positive working relationships within the classroom.

<table>
<thead>
<tr>
<th>Content Knowledge</th>
<th>Professional Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.3.1 CK Candidates know how to design learning experiences that build learner self-direction and ownership of learning.</td>
<td>7.3.3 PS Candidates collaborate with learners, families, and colleagues to build a safe, positive learning climate.</td>
</tr>
<tr>
<td>7.3.2 CK Candidates know how to help learners work productively and cooperatively with each other to achieve learning goals.</td>
<td>7.3.4 PS Candidates collaborate with learners to develop respectful interactions between individuals and between members within groups.</td>
</tr>
</tbody>
</table>

### Standard 8: Professional Development, Advocacy, and Ethics. Candidates will represent World Languages professionally and ethically, collaborating with all stakeholders.

### Function 1: Engage in continuous professional learning opportunities to strengthen their own linguistic, cultural, and pedagogical competence and promote reflection on practice.

<table>
<thead>
<tr>
<th>Content Knowledge</th>
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</tr>
</thead>
<tbody>
<tr>
<td>8.1.1 CK Candidates understand the value of collaborative growth through interactions with colleagues and specialists.</td>
<td>8.1.4 PS Candidates engage in structured individual and group professional learning opportunities.</td>
</tr>
<tr>
<td>8.1.2 CK Candidates understand the importance of maintaining and advancing their skills.</td>
<td>8.1.5 PS Candidates continue language investigations to enhance knowledge and skills specific to development of second-language acquisition.</td>
</tr>
<tr>
<td>8.1.3 CK Candidates know how to use a variety of self-assessment and problem-solving strategies to analyze and reflect on practices.</td>
<td>8.1.6 PS Candidates actively seek professional, community, and technological resources as support for analysis, reflection, and problem solving.</td>
</tr>
</tbody>
</table>
### Function 2: Advocate for the learning of languages and cultures by all students

<table>
<thead>
<tr>
<th>Content Knowledge</th>
<th>Professional Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.2.1 CK Candidates know how to access current research and data about the benefits of second language acquisition.</td>
<td>8.2.4 PS Candidates use technological tools and a variety of communication strategies to build local and global learning communities that engage learners, families, and colleagues.</td>
</tr>
<tr>
<td>8.2.2 CK Candidates know how to access resources and data relevant to the importance of second language acquisition in the 21st century global community.</td>
<td>8.2.5 PS Candidates promote the value of second language acquisition by sharing relevant data significant to learner goals.</td>
</tr>
<tr>
<td>8.2.3 CK Candidates understand the importance of ongoing alliances to promote the goal of language acquisition for all P-12 students.</td>
<td>8.2.6 PS Candidates disseminate advocacy messages to all stakeholders in support of language acquisition.</td>
</tr>
</tbody>
</table>

### Function 3: Collaborate ethically and equitably with all learners, families, colleagues, and community stakeholders for learner growth.

<table>
<thead>
<tr>
<th>Content Knowledge</th>
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</tr>
</thead>
<tbody>
<tr>
<td>8.3.1 CK Candidates understand that alignment of family, school, and community spheres of influence enhances student learning and that discontinuity among these spheres interferes with learning.</td>
<td>8.3.3 PS Candidates engage professionally with stakeholders to build a shared vision, establish expectations, and communicate progress toward shared goals.</td>
</tr>
<tr>
<td>8.3.2 CK Candidates understand schools as organizations within a historical, cultural, political, and social context and know how to work with others across the system to support learners.</td>
<td>8.3.4 PS Candidates seek appropriate opportunities to advocate for learners, strengthen the learning environment, and enact positive system changes.</td>
</tr>
</tbody>
</table>
Standard #1  The teacher of a foreign language has knowledge in specific areas related to the target language, its literature, and its culture appropriate to the developmental needs and interests of students.

Knowledge
1. The teacher is aware that language manifests itself in all aspects of life.
2. The teacher knows how the target culture and target language interrelate.
3. The teacher understands linguistic and cultural realities as dynamic and complex and views perspectives of language and culture in relation to practices and products.
4. The teacher knows both formal and informal aspects of the target language: geography, history, economics, the arts, religion, politics, daily living and customs, social sciences, literature, and origins of the language.
5. The teacher knows the benefits of internalizing and personalizing the study of target language and culture.
6. The teacher understands the value of first-hand experiences in the target culture.

Performance
1. The teacher presents the target language, its literature, and its culture in contextually meaningful situations.
2. The teacher explains the interrelated connections between the target language and the target culture.
3. The teacher engages the students in continual opportunities to update and re-evaluate their knowledge and understanding of changing cultural realities and their appreciation for the historical development of both language and culture.
4. The teacher develops authentic situations for exploring both high culture and popular culture to increase pragmatic, semantic, sociological, and aesthetic experiences of the target culture through literature.
5. The teacher relates personal experiences with the target language and culture.
6. The teacher seeks opportunities for first-hand experiences in the target culture such as study/travel abroad, cultural immersion within the United States, and through Internet communication.

Standard #2  The teacher of a foreign language is proficient in the foreign language.

Knowledge
1. The teacher is aware of the levels of proficiency in the basic skills in foreign language and his or her own level.
2. The teacher understands the importance of maintaining and advancing his or her skills.

Performance
1. The teacher demonstrates advanced proficiency in the target language to converse according to the American Council on the Teaching of Foreign Languages (ACTFL) Guidelines.
2. The teacher initiates, sustains, and brings to closure a wide variety of communicative tasks, including those that require an increased ability to convey meaning with diverse language strategies due to a complication or an unforeseen turn of events.
3. The teacher narrates and describes with paragraph-length connected discourse in the target language.
4. The teacher engages in a variety of formal and informal conversations on practical, social, professional, and abstract topics, using native-like discourse strategies in the target language.
5. The teacher can express his or her own ideas on practical, social, and professional topics in most formal and informal writing styles in the target language.
6. The teacher can write most kinds of correspondence, such as memos, social and business letters, short research papers, and statements of position in areas of special interest in the target language.
7. The teacher demonstrates control of a full range of structures, spelling, and non-alphabetic symbol production in the target language.
8. The teacher uses a wide vocabulary to hypothesize and present written arguments or points of view in the target language.
9. The teacher uses appropriate formal and informal styles for various purposes and audiences in the target language.
10. The teacher includes learning activities in the target language that capitalize on proficiency levels in each skill: listening, speaking, reading, and writing.
11. The teacher interacts frequently with persons who are also skilled in the target language, locally or outside the local setting.
12. The teacher creates opportunities for self, students, and the wider community to have direct contact with native speakers of the target language.

Standard #3  The teacher of a foreign language demonstrates an understanding of second-language acquisition and its relation to first-language development including the history of second-language education in the United States.

Knowledge
1. The teacher knows theories of first- and second-language acquisition and learning.
2. The teacher knows how to relate knowledge of first-language to second-language acquisition.

Performance
1. The teacher explains language learning theory to help students become better language learners.
2. The teacher creates lessons that reflect thought about first- and second-language acquisition methods.
3. The teacher helps students understand their learning styles and how they relate to language learning.
4. The teacher continues language investigations to enhance understanding of second-language acquisition.

Standard #4  The teacher of a foreign language understands how individuals learn and develop and provides foreign learning opportunities that support personal development.

Knowledge
1. The teacher understands that the foreign language process must be long-range and sequential to ensure continuity.
2. The teacher knows that in learning a foreign language, comprehension precedes production, linguistic abilities develop in stages, student output is not error-free, language is more readily produced in an affective environment, and language, a singularly human endeavor, is produced systematically.
3. The teacher knows that in learning a foreign language, the sociolinguistic context of language learning is a practical necessity, meaningful extracurricular activities enhance developing language skills of students, and community outreach is a meaningful use of foreign language skills.

Performance
1. The teacher uses a comprehensive target-language vocabulary to provide interesting and appropriate input.
2. The teacher allows student output to occur in the target language when ready.
3. The teacher provides a comfortable environment for correcting errors.
4. The teacher encourages students to progress at their own developmental rates.
5. The teacher uses the textbook as a resource but not as the ultimate guide for instruction.
6. The teacher develops classroom activities and uses authentic materials that are meaningful, purposeful, and realistically appropriate.
7. The teacher presents specific information on gestures and rhythmic properties of language.
8. The teacher promotes, creates, and seeks out opportunities for practicing the language within the local community or abroad.

**Standard #5**  
**The teacher of a foreign language demonstrates knowledge of second-language instructional methods, resources, and classroom management techniques conducive to critical and creative thinking.**

**Knowledge**
1. The teacher understands the differences between convergent and divergent thinking processes and recognizes methods, techniques, and resources appropriate to the diversity of the students.
2. The teacher understands foreign language instructional principles and techniques and knows how to integrate cultural knowledge, literature, history, and customs through group learning, discussions, journals, oral presentations, drama, and multi-media projects into instruction.
3. The teacher knows about foreign language learning and the need to vary materials with human and technological resources.

**Performance**
1. The teacher chooses, creates, uses, and adjusts methods and resources to achieve different learning goals based on continual evaluations of students’ developmental needs and interests.
2. The teacher immerses students in foreign language communication through informative, directive, expressive, imaginative, and other interactive means.
3. The teacher uses role play and communication activities to give students the opportunity to practice foreign language creatively and cooperatively, in cultural situations.
4. The teacher, to promote students’ critical understanding, presents alternative, diverse concepts and representations of foreign language culture, and encourages the students to assume cultural perspectives other than their own.

**Standard #6**  
**The teacher of a foreign language motivates both individuals and groups to create a target language learning environment that encourages positive social interaction, active engagement in learning and self-motivation.**

**Knowledge**
1. The teacher understands human motivation and behavior for organizing and supporting individual and group work in learning a foreign language.
2. The teacher understands the principles of effective classroom management and strategies to promote equity, positive relationships, cooperation, and purposeful learning of a foreign language in the classroom.
3. The teacher recognizes how to help students become self-motivated to learn a second language.

**Performance**
1. The teacher creates a smoothly functioning community in which students assume responsibility for themselves and one another in learning a foreign language.
2. The teacher engages students in individual and group learning activities that help them develop the motivation to achieve and respond to the challenge of high expectations for learning a foreign language.
3. The teacher organizes, allocates, and manages the resources of time, space, activities, and attention to provide active and equitable engagement of students in productive tasks for learning a foreign language.
Standard #7  The teacher of a foreign language models a variety of effective communication and instructional techniques to address the diverse needs of students.

**Knowledge**
1. The teacher understands the value of listening, speaking, reading, and writing in the communication process.
2. The teacher is aware of various learning modes appropriate for students from diverse backgrounds and those with special needs.
3. The teacher understands how cultural and gender differences can affect communication in the classroom.

**Performance**
1. The teacher demonstrates the ability to communicate with accuracy in oral form: diction, grammar, appropriate register, drama expression, volume and pitch, enunciation and pronunciation.
2. The teacher demonstrates the ability to communicate with accuracy and appropriateness in written form: vocabulary, mechanical skills, physical and organization form, style and tone, voice, development of ideas, sentence structure and fluency, and discourse.
3. The teacher demonstrates the ability to listen and comprehend.
4. The teacher uses a variety of teaching and assessment activities to accommodate differing learning modes such as audio presentations, written expression, video presentations, group activities, individual performances, physical activities (e.g., cooking, drama, dance, visual art, music), oral and written practice, speaking and conversational opportunities, cultural presentations, technology usage, and others that meet the needs of emotional, social, cultural, physical, and mental development of the students.
5. The teacher uses techniques to develop the scope and depth of students’ higher order thinking skills.

Standard #8  The teacher of a foreign language integrates knowledge of and encourages interactions with the local cultures and the general school curriculum through a foreign language.

**Knowledge**
1. The teacher understands the culture(s) of the foreign language.
2. The teacher knows how to integrate aspects of the foreign language with other curricula.

**Performance**
1. The teacher creates lessons incorporating the foreign language culture(s).
2. The teacher helps students research the foreign language culture(s).
3. The teacher accesses opportunities within and outside of the community to increase cultural awareness.
4. The teacher collaborates with and integrates other educational segments (e.g., content areas and/or levels) to emphasize foreign language culture(s).

Standard #9  The teacher of a foreign language fosters collaborative relationships within the school system and community, particularly those that reflect diverse languages and cultures.

**Knowledge**
1. The teacher is familiar with various cultural and language backgrounds of the local school personnel, the community, and area.
2. The teacher recognizes and identifies the various community agencies that work with families who speak different languages.
3. The teacher recognizes school and community organizations that foster positive relationships with families of different cultural backgrounds.
**Performance**

1. The teacher shares linguistic and cultural expertise with the community (e.g., language clubs, social events, education programs, and field trips).
2. The teacher uses local, national, and international resources to foster student learning.
3. The teacher advocates for foreign language education for all students to prepare them to function in a multilingual and multicultural community at home and abroad.
Program Standards

- IHEs utilize program standards to:
  - Develop their preparation programs and submit for approval
  - Monitor and redesign programs to ensure teacher candidates have access to learning opportunities that are aligned with the needs of today’s learners and expectations of teachers
Program Standards

• Two types of program standards:
  1. Professional Education Standards
     • Articulate a core of teaching knowledge and skills - What teachers across all content and grade levels should know and be able to do to be effective in today’s learning contexts
  2. Content Program Standards
     • Articulate knowledge and skills within each specific content or (endorsement) subject area: i.e. chemistry, math, elementary

Three Sets of Preparation Program Standards:

1. Chemistry, 6-12
2. Physics, 6-12
3. Foreign Language, PreK-12
Chemistry, 6-12

» The structure has changed to include Professional Skills indicators rather than the previous Performance indicators.

» The previous standards only had indicators listed in each standard while the new standards are broken down by Functions and then have the two types of indicators within each Function.

» Overall focus of standards on teaching and learning strategies in addition to overall content knowledge.

Physics, 6-12

➢ The structure has changed to include Professional Skills indicators rather than the previous Performance indicators.

➢ The previous standards only had indicators listed in each standard while the new standards are broken down by Functions and then have the two types of indicators within each Function.

➢ The new Physics standards are focused on specific content knowledge, problem solving skills, and teaching techniques and technology.
Foreign Language, PreK-12

- Help educators prepare learners to succeed in the future global workforce, using technology to access the global community and interacting with people and businesses of many cultural and linguistic backgrounds.
- Are aligned with the Kansans CAN Talking Points of Vision and Flexibility.
- Standard 1 focuses on language proficiency to enable the classroom instruction to be conducted primarily in the target language.
- Standards 2-7 focus on application of language acquisition strategies.

Foreign Language, PreK-12 continued

- Standard 8 focuses on professional collaboration and advocacy.
- The total number of standards was reduced where they overlapped and a standard specifically addressing assessment was added.
- Were developed by a wide range of experts from within various levels of education in Kansas drawing on current language acquisition best practices research and aligned with the Kansas World Language Standards.
Next Step for Other Program Standards

- Other program standards will be addressed over the next few months, utilizing the same process steps.
To:          Commissioner Randy Watson
From:        Lane Wiley
Subject:     EducationSuperHighway Report on the Kansas Connect and Learn Initiative

Board Goals: Provide a flexible and efficient delivery system to meet our students’ varied and changing needs

This report on the state of connectivity in Kansas schools is part of the Governor’s joint initiative with the Kansas State Board of Education and EducationSuperHighway to ensure 21st Century connectivity to all Kansas schools. EducationSuperHighway has prepared the Kansas Connect and Learn required report to present to the State Board of Education on the current state of connectivity in Kansas schools. This report, based on Federal E-rate data, was compiled in collaboration with KSDE and Kansas schools. The information will be used to focus resources for the continuing efforts of this important educational initiative.
Kansas Connect and Learn Initiative: Connectivity Report

Presentation to the Kansas State Board of Education

March 14, 2017
Our mission

Upgrade the Internet access in every public school classroom in America so that all students can take advantage of the promise of digital learning.
Almost every school district in the state is embracing digital tools of school districts in Kansas have, or are planning to implement within 1 year, a 1:1 or BYOD program.

Source: 2016-2017 KSDE digital learning survey
Digital learning is transforming education in Kansas

A math teacher in Andover makes math real by using Skype to engage with statisticians at Amazon, rescue divers, and students in Serbia.

A teacher in Baxter Springs uses the Periscope app as free professional development to provide techniques and strategies for teachers and uses social media apps as a platform for student creativity.

Students at Spring Hill School District are blogging, using Moodle for a range of assignments, and collaborating through the use of Google Applications, as part of their daily routine.

Liberal Public School’s third grade students practice daily calendar and math facts by using a digital interactive tool.
High-speed broadband requires

• Sufficient bandwidth that districts can afford

• Fiber to every school

• Wi-Fi to every classroom
Where Kansas stands

- 94% of school districts meet the FCC bandwidth recommendation of 100 kbps/student
  - Only 9% of districts meet the 1 Mbps/student 2018 goal
- 94% of campuses have fiber connections
- 47% of school districts meet national affordability benchmarks for Internet access
- 91% of school districts report sufficient Wi-Fi connections for current needs
  - 25% report 1 AP/classroom needed to support future needs

Source: EducationSuperHighway 2016 State of the States Report
Kansas Connect & Learn action plan

- ESH, with KSDE support, to contact districts not meeting goal to understand their challenges
- ESH to support upgrades for districts not meeting goal

- Create a fund to bring fiber to schools that need it
- ESH to meet with service providers to discuss fiber upgrade plans

- Use price transparency (Compare&Connect K-12) to improve affordability
- ESH to consult with districts that overpay to find better solutions

- Conduct detailed Wi-Fi survey to determine upgrade needs
- Provide resources to districts needing support (education, procurement support, funding)

Impact by 7/1/2018

- 94% → 99% meeting goal
- 16th → 6th

- 93% → 98% fiber
- 32nd → 16th

- 49% → 87% affordable
- 30th → 5th

- 91% → 100% Wi-Fi
- 2nd → 1st
Our sample represents 98% of school districts in Kansas

- Connectivity data based on E-rate funding requests for 2016-17
- Does not include charter, private, or BIE schools
  - We are working with Kansas accredited private schools, but their data is not included because most do not apply for E-rate
- Sample consists of 280 districts of varying locale and size
Bandwidth
94% of districts meet Internet access goals

94% of districts that meet the 100 kbps per student goal

82% of WAN connections meet the 1 Gbps per campus goal

Sources: 2016 FCC Form 471 E-rate applications, data clarification calls to various districts
94% of districts are meeting 100 kbps/student

Percent of districts and students meeting the 2014 and 2018 goals

Sources: 2016 FCC Form 471 E-rate applications, data clarification calls to various districts
Most districts not meeting 100 kbps/student goal are in rural locales

Percent of districts not meeting 100 kbps/student

- Small Town: 59%
- Rural: 35%
- Suburban: 6%

Sources: 2016 FCC Form 471 E-rate applications, data clarification calls to various districts
82% of WAN connections meet the 1 Gbps goal

Percent of WAN connections meeting 1 Gbps goal

- Kansas (n=736): 82%
- National (n=49,901): 72%

Sources: 2016 FCC Form 471 E-rate applications, data clarification calls to various districts
39% of WAN connections under 1 Gbps are not fiber

Percent of WAN circuits by connection type

- Fiber: 60.9%
- Fixed Wireless: 37.6%
- Other Copper: 1.5%

Sources: 2016 FCC Form 471 E-rate applications, data clarification calls to various districts
Some campuses in Kansas lack fiber connectivity

At least 81 campuses are not connected to fiber, which limits their ability to support digital learning today and tomorrow.

Sources: 2016 FCC Form 471 E-rate applications, data clarification calls to various districts
Districts without fiber are spread across the state

Districts that need fiber

- Districts definitely need fiber
- Districts might need fiber

Sources: 2016 FCC Form 471 E-rate applications, data clarification calls to various districts
93% of campuses without fiber are rural or small town

% of non-fiber campuses by locale

- Rural: 77.6%
- Small Town: 15.0%
- Urban: 7.2%
- Suburban: 0.2%

Sources: 2016 FCC Form 471 E-rate applications, data clarification calls to various districts
Why should schools upgrade, and why now?

E-rate funding and rule changes have created an **UNPRECEDEDENTED OPPORTUNITY** to connect schools to fiber and create more upgrade options

- Additional 10% E-rate discount if state has a matching fund
- $500 K cap has been suspended on construction costs
- More flexibility to pay non-discounted portion of construction costs
- Could help service providers build out their networks

This opportunity is only guaranteed until 2018 E-rate cycle
State match in Kansas

Aggregate Cost for Fiber Builds ($M)

The state invests $4M, E-rate covers $21M, and $26M of broadband infrastructure is built for 81 remaining campuses at **no out of pocket cost to districts**.
Impact of E-rate state match funding

In New Mexico, state match funding allowed significant numbers of districts to upgrade at no cost.

<table>
<thead>
<tr>
<th>District</th>
<th>Special Construction</th>
<th>State Match</th>
<th>District Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bernalillo Public Schools (9 Schools)</td>
<td>$1,436,100.00</td>
<td>$71,805.00</td>
<td>$0</td>
</tr>
<tr>
<td>Bloomfield Schools (1 School)</td>
<td>$412,269.44</td>
<td>$20,613.47</td>
<td>$0</td>
</tr>
<tr>
<td>Central Consolidated Schools (11 Schools)</td>
<td>$6,388,159.95</td>
<td>$319,408.00</td>
<td>$0</td>
</tr>
<tr>
<td>Cobre Consolidated Schools (1 School)</td>
<td>$2,500.00</td>
<td>$125.00</td>
<td>$0</td>
</tr>
<tr>
<td>Deming Public Schools (1 School)</td>
<td>$500.00</td>
<td>$25.00</td>
<td>$0</td>
</tr>
<tr>
<td>Farmington Municipal Schools (8 Schools)</td>
<td>$489,896.46</td>
<td>$48,989.65</td>
<td>$0</td>
</tr>
<tr>
<td>Gallup-McKinley County Schools (4 Schools)</td>
<td>$1,758,164.57</td>
<td>$87,908.23</td>
<td>$0</td>
</tr>
<tr>
<td>Hondo Valley Public Schools (2 Schools)</td>
<td>$35,000.00</td>
<td>$1,750.00</td>
<td>$0</td>
</tr>
<tr>
<td>Jal Public Schools (3 Schools)</td>
<td>$300.00</td>
<td>$30.00</td>
<td>$0</td>
</tr>
<tr>
<td>Socorro Consolidated Schools (2 Schools)</td>
<td>$875,615.63</td>
<td>$87,561.56</td>
<td>$0</td>
</tr>
<tr>
<td>West Las Vegas Public Schools (2 Schools)</td>
<td>$2,438.91</td>
<td>$121.95</td>
<td>$0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$11,400,944.96</strong></td>
<td><strong>$638,377.85</strong></td>
<td><strong>$0</strong></td>
</tr>
</tbody>
</table>
Affordability
Broadband is very expensive for many districts

47% of districts are meeting Internet access affordability benchmarks. Internet and WAN costs are highly variable.

Source: EducationSuperHighway 2016 State of the States Report
Internet access costs are highly variable

Districts with 100 Mbps lit fiber Internet connections

Sources: 2016 FCC Form 471 E-rate applications, data clarification calls to various districts

<1,000/month <2,000/month <3,000/month <4,000/month
Districts pay a wide range of costs for the same bandwidth

Lit fiber Internet access
Monthly recurring cost by bandwidth

Sources: 2016 FCC Form 471 E-rate applications, data clarification calls to various districts
### National affordability benchmarks

<table>
<thead>
<tr>
<th>Circuit size</th>
<th>$/Mbps</th>
<th>monthly cost / circuit</th>
</tr>
</thead>
<tbody>
<tr>
<td>10,000 Mbps</td>
<td>$0.75</td>
<td>$7,500</td>
</tr>
<tr>
<td>1000 Mbps</td>
<td>$3.00</td>
<td>$3,000</td>
</tr>
<tr>
<td>500 Mbps</td>
<td>$5.50</td>
<td>$2,750</td>
</tr>
<tr>
<td>200 Mbps</td>
<td>$9.00</td>
<td>$1,800</td>
</tr>
<tr>
<td>100 Mbps</td>
<td>$12.00</td>
<td>$1,200</td>
</tr>
<tr>
<td>50 Mbps</td>
<td>$14.00</td>
<td>$700</td>
</tr>
</tbody>
</table>
47% of districts meet IA affordability

% of districts meeting affordability benchmarks

- Kansas (n = 271): 47%
- National (n = 10,819): 51%

Source: EducationSuperHighway 2016 State of the States Report
School districts meeting the affordability benchmark are more likely to meet bandwidth goals

Percent of districts not meeting 100 kbps / student

Meeting Affordability Benchmarks: 2%
Not Meeting Affordability Benchmarks: 10%

Sources: 2016 FCC Form 471 E-rate applications, data clarification calls to various districts
### Affordability

14 districts can meet 100 kbps/student with their existing budget if affordability is improved to benchmark levels.

<table>
<thead>
<tr>
<th>District</th>
<th>Current BW / Student (kbps)</th>
<th>Projected BW / Student (kbps)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABILENE</td>
<td>92</td>
<td>6,146</td>
</tr>
<tr>
<td>SILVER LAKE</td>
<td>84</td>
<td>2,149</td>
</tr>
<tr>
<td>FT LEAVENWORTH</td>
<td>63</td>
<td>1,250</td>
</tr>
<tr>
<td>AUGUSTA</td>
<td>65</td>
<td>1,087</td>
</tr>
<tr>
<td>CANEY VALLEY</td>
<td>92</td>
<td>965</td>
</tr>
<tr>
<td>PITTSBURG</td>
<td>55</td>
<td>574</td>
</tr>
<tr>
<td>ELLSWORTH</td>
<td>87</td>
<td>459</td>
</tr>
<tr>
<td>CHERRYVALE</td>
<td>90</td>
<td>448</td>
</tr>
<tr>
<td>LIBERAL</td>
<td>68</td>
<td>425</td>
</tr>
<tr>
<td>AUBURN WASHBURN</td>
<td>88</td>
<td>367</td>
</tr>
<tr>
<td>WINFIELD</td>
<td>72</td>
<td>359</td>
</tr>
<tr>
<td>KISMET-PLAINS</td>
<td>91</td>
<td>330</td>
</tr>
<tr>
<td>PAOLA</td>
<td>67</td>
<td>202</td>
</tr>
<tr>
<td>GARNETT</td>
<td>78</td>
<td>104</td>
</tr>
</tbody>
</table>

Sources: 2016 FCC Form 471 E-rate applications, data clarification calls to various districts
55 more districts would meet the 2018 goal if they received benchmark pricing
With **no increase** to their current budget

<table>
<thead>
<tr>
<th>% of districts meeting 2018 goal</th>
<th>Current</th>
<th>Projected</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9%</td>
<td>29%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Median bandwidth per student of upgraded districts</th>
<th>Current</th>
<th>Projected</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>203</td>
<td>918</td>
</tr>
</tbody>
</table>

**20% increase in districts meeting 2018 goal**

**4.5x increase in median bandwidth**

*Sources: 2016 FCC Form 471 E-rate applications, data clarification calls to various districts*
Wi-Fi
Districts can use E-rate funds to upgrade Wi-Fi connectivity

25 school districts reported that they need better Wi-Fi. These districts have $1.7 million available in E-rate Category 2 funding, which can help upgrade wired and wireless networks.

Sources: 2016 FCC Form 471 E-rate applications, data clarification calls to various districts
Districts that need better Wi-Fi are spread across the state

These districts have **$1.7 million** in Category 2 funding is available for these districts (44% of their budget).

**88%** of these districts still have some funding available

*District that reported needing better Wi-Fi*

Sources: 2016 FCC Form 471 E-rate applications, data clarification calls to various districts
Only $\frac{1}{4}$ of all districts have 1 Access Point per classroom.

District responses to number of WAPs per classroom:

- Less than 0.5 WAPs per classroom: 20%
- Between 0.5 and 1 WAP per classroom: 55%
- One or more WAPs per classroom: 25%

Source: 2016-2017 KSDE digital learning survey
Most districts can still access $50 million in E-rate funds
Category 2 funds connections within schools (Wi-Fi, LAN, internal connections)

Overall Category 2 funding for Kansas:

- **$50 million** of $70 million of the state’s five year E-rate budget for wired and wireless networks in the building is still available
- **80%** of districts applied for and received Category 2 funding
- **10%** of districts have used their full $150 per student budget for Category 2

Sources: 2016 FCC Form 471 E-rate applications, data clarification calls to various districts
Kansas Connect & Learn action plan

**Current priorities**

- ESH, with KSDE support, to contact districts not meeting goal to understand their challenges (in progress)
- ESH to support upgrades for districts not meeting goal (in progress)
- Create a fund to bring fiber to schools that need it
- ESH to meet with service providers to discuss fiber upgrade plans (in progress)
- Use price transparency (Compare&Connect K-12) to improve affordability
- ESH to consult with districts that overpay to find better solutions

**Future Work**

- Conduct detailed Wi-Fi survey to determine upgrade needs
- Provide resources to districts needing support (education, procurement support, funding)
Appendix
Kansas K-12 demographics

- 286 public school districts
- 1,117 campuses
- 465,600+ students

Does not include charter, private, or BIE schools
Most regions in Kansas are represented in the data

- Kansas school districts population
- Kansas school districts clean sample
Methodology

State Match Methodology = State of the States Methodology

State Match $ = (# known builds + extrapolation) * locale $/mile * # miles * % match

- **Identifying campuses that need fiber (from clean sample):**
  - A district is determined to need fiber IA if all campuses are on an unscalable service (using same methodology and definitions as in State of the States)
  - The campuses farthest from the district office were assumed to need fiber

- **Estimating the build cost:**
  - The projected cost of the build was calculated based on location (determined by latitude and longitude) and distance
  - Location and distance was fed into a proprietary algorithm that draws from an expansive database of fiber construction costs across the nation
  - Various network architectures are used to determine the range of the state match and district out-of-pocket cost

- **Extrapolation from sample to population**
  - Total mileage and cost were extrapolated to the population based on the ratio of clean campuses to total campuses for WAN and clean districts to total districts for IA builds
State Match Details and Process

Funding

• New or existing state funds – preference is for new
• Control of the state
• No conflicts with E-rate in distribution
• Specific language of eligible service
• No comment on management of the infrastructure

Process

1. Review request to USAC Schools and Libraries Division
2. USAC initial review and forward to FCC
3. FCC and USAC discussion
4. Feedback to State
5. Decision
Item Title:
Act on appointment of a State Board of Education member to the Kansas State High School Activities Association (KSHSAA) Board of Directors

Board Goals:
Governmental Responsibility

Recommended Motion:
It is moved that the Kansas State Board of Education appoint one member of the State Board to a two-year term on the KSHSAA Board of Directors for 2017-2019.

Explanation of Situation Requiring Action:
The Kansas State High School Activities Association Board of Directors consists of not less than 60 members. At least two directors shall be representatives of the State Board of Education, appointed by the State Board. (K.S.A. 2014 SUPP. 72-130).

KSHSAA Board of Director members are limited to a maximum term of six consecutive years. Current representatives from the State Board of Education are Kathy Busch (2015-17) and Jim Porter (2016-18). The position held by Mrs. Busch expires June 30, 2017. She is eligible for another two-year term.

See attached request letter from KSHSAA for making an appointment to the Board of Directors.
January 3, 2017

Dr. Randy Watson
Commissioner
Kansas State Department of Education
900 SW Jackson Street, Suite 600
Topeka, KS 66612

RE: KSHSAA Board of Director and Executive Board Appointments

Dear Randy:

As we approach the conclusion of the 2016-17 school business year, my records indicate the need for the Kansas State Board of Education to consider the appointment of one member of the State Board of Education to a term on the KSHSAA Board of Directors.

Kathy Busch – Board of Directors Term (2015-17)
(She will have served two years at the conclusion of the 2016-17 school year.)

Jim Porter – Board of Directors Term (2016-18)
* No action needs to be taken for Jim, as he enters the second year of his term.
*(He will have served one year at the conclusion of the 2016-17 school year.)*

It is time for the State Board of Education to appoint one of their members to a two-year term on the KSHSAA Board of Directors for 2017-2019. KSHSAA Board of Director members are limited to a maximum term of six consecutive years. Kathy Busch has served two years consecutively, and is eligible for an additional two year term if the KSBE chooses.

Additionally, Kathy is in the middle of a current two-year term on the KSHSAA Executive Board (2016-2018). Her term on the KSHSAA Executive Board will not end until June 30, 2018. She will not be able to serve on the Executive Board without being a member of the Board of Directors.

KSHSAA Board of Director and Executive Board elections occur during the month of April which enables us to gather all the data necessary for publication of the Handbook and Directory. Having the appointments from the Kansas State Board of Education by May 1 or sooner would be of great assistance. Should there be questions regarding these procedures, please do not hesitate to contact me.

Sincerely,

Gary Musselman
Executive Director

Cc: Peggy Hill, KSDE
To: Kansas State Board of Education

Subject: Report from Kansas Association of Health Physical Education Recreation and Dance on benefits of physical activity on student performance

Board Goals: Develop active communication and partnerships with families, communities, business stakeholders, constituents and policy partners

Research has shown the connection between physical activity and enhanced student learning. Representatives from the Kansas Association of Health Physical Education Recreation and Dance will share additional information on this topic and report on the benefits of physical activity throughout the school day. Examples include active learning labs, aerobic brain breaks before testing and creative play at recess. The influence of physical activity as an academic intervention for students with neurobehavioral disorders can be linked to the Kansans Can vision outcome addressing social/emotional growth.
To: Commissioner Randy Watson
From: Scott Myers
Subject: Kansas Education Systems Accreditation Zero Year Update
Board Goals: Provide an effective educator in every classroom

Dr. Scott Myers and staff will present an update on Teacher Licensure and Accreditation (TLA) work in preparation for the 2017-2018 school year - implementation of the new accreditation model, Kansas Education Systems Accreditation (KESA).
REQUEST AND RECOMMENDATION FOR BOARD ACTION

Item Title:

Act to renew accreditation status of schools for 2017-2018

Board Goals:

Provide a flexible and efficient delivery system to meet our students’ varied and changing needs

Recommended Motion:

It is moved that the Kansas State Board of Education retain each school's accreditation rating until that status is superseded by the first system-level status granted under KESA to the education system to which the school belongs or to the school itself in the case of an independent private school and unless that status is changed by official action of the Board.

Explanation of Situation Requiring Action:

Teacher Licensure and Accreditation staff will present a recommendation that the Board act as follows:

All schools currently holding an accreditation rating from the Kansas State Board of Education shall retain that status until that status is superseded by the first system-level status granted under Kansas Education Systems Accreditation (KESA) to the education system to which the school belongs or to the school itself in the case of an independent private school and unless that status is changed by official action of the Board.
To: Commissioner Randy Watson  
From: Scott Myers  
Subject: Teacher Vacancy and Supply Committee Recommendation and Report  

Board Goals: Provide an effective educator in every classroom

The Teacher Vacancy and Supply Committee (TVSC) was formed as a result of State Board action last summer on the Blue Ribbon Task Force on Teacher Vacancies and Supply final report. Board actions included:

- Create the Teacher Vacancy and Supply Committee (TVSC) as a standing subcommittee of the Professional Standards Board
- Refer the BRTF Report to the Professional Standards Board for evaluation
- Direct the Professional Standards Board to study and present a range of options for addressing the specific licensing issues mentioned in the BRTF report: elementary restricted, multi-year first license, student teaching options and comprehensive science.

The TVSC met in October and December, focusing on the four licensing issues as their first priority. An update report was presented to the Board in January 2017. The TVSC met again on Feb. 3. Additional meetings are scheduled. Committee members will provide an update on the continuing work, including specific proposals for guidelines and requirements around mentoring programs to be delivered to teachers new to the profession.

TVSC members are: Deb Ayers-Geist, USD 202 Turner; Dustin Mortenson, USD 232 DeSoto; Don Dome, USD 259 Wichita; Trissa McCabe, USD 309 Nickerson/South Hutch; Alan Jamison, USD 360 Caldwell; Dr. Shawn Roberts, USD 466 Scott City; Nikki Ramirez-Jennings, USD 501 Topeka; Monique Goodeyon, USD 512 Shawnee Mission; Dr. Laurie Curtis, Kansas State University; Dr. Alice Sagehorn, Pittsburg State University; Sally Cauble and Kathy Busch, Kansas State Board of Education.

The Board is asked to consider the following recommended motion:

It is moved that the Kansas State Board of Education authorize implementation of proposed mentoring guidelines and requirements for new teachers as presented as a State Board of Education pilot program for the 2017-2018 and 2018-2019 school years.

*See proposed guidelines on next page.
Kansas Model Mentor and Induction Program Guidelines
for New Teachers

Each local education agency (LEA) shall have an approved program providing systemic mentoring and induction support to all new teachers. The program must include, but is not limited to, the following:

1. Mentoring and Induction support must be mentee driven. Mentees are required to complete a needs assessment. The needs assessment should be the same as the needs assessment used for the evaluation process. The results of the needs assessment are to be used to match the appropriate mentor to the mentee.

2. Program provides practical application of practices that outline a new teacher’s professional learning needs related to: the learner and learning; content knowledge; instructional practice; professional responsibility.

3. Program must include selection criteria and training for mentors:
   A. Selection Criteria:
      i. Mentor must have a professional license in effect.
      ii. Mentors must complete approved mentor training.
      iii. A pool of mentors should be in place by the end of each school year.
      iv. Mentors must be matched to the mentee by the first day of the contract.
   B. Training:
      Mentors must be trained prior to the start or the school year or prior to being assigned a mentee. Initial mentor training is paired with ongoing professional learning for the mentor. Mentor training must include, but may not be limited, to the following components:
      i. Learning to observe, coach, and give constructive feedback to peers, including strategies for self-reflection;
      ii. Utilizing best instructional practices, classroom management, and organization;
      iii. Dealing with difficult or resistant people and conflict resolution;
      iv. Enhancing communication skills and building relationships;
      v. Clarifying mentor’s roles and responsibilities;
      vi. Practicing time management; and
      vii. Developing knowledge of school/district policies and procedures including student assessment, curriculum, guides and supplemental resources.

4. Program provides multi-year support for the mentee. A minimum of two years of structured support is required, with an annual needs assessment to determine needs of mentee into 2nd year and beyond, if needed. Support during the required two years of structured mentoring must include:
   A. Regular communication
   B. Observation of other classrooms
   C. System for mentor to provide reflective verbal dialogue and feedback.

5. Accountability measures of program effectiveness should include retention data of new teachers, evaluation of progress on needs assessments and feedback by the building principal.
REQUEST AND RECOMMENDATION FOR BOARD ACTION

Staff Initiating: Scott Myers
Director: Scott Myers
Commissioner: Randy Watson
Meeting Date: 3/14/2017

Item Title:
Act on Appointment to the Licensure Review Committee

Board Goals:
Provide an effective educator in every classroom

Recommended Motion:
It is moved that the Kansas State Board of Education appoint Jean Rush to serve on the Licensure Review Committee as a representative of Chief School Administrators. The term of office for the appointed nominee would be for a partial term from March 14, 2017 through June 30, 2017. Then the appointed member would serve a full three-year term from July 1, 2017 through June 30, 2020.

Explanation of Situation Requiring Action:
Appointments to the Licensure Review Committee are made as stipulated under statute, K.S.A. 2-8508, which states: "members shall be appointed for three-year terms, and no person shall be appointed to serve longer than two full terms in addition to any term of a period less than three years."

Jean Rush, Superintendent at Holcomb USD 363, was nominated to fill a vacancy for a representative of Chief School Administrators on the Licensure Review Committee. The nominee’s application and resume are provided.

Staff will be available to answer any questions regarding this appointment.
**Nominees for Professional Standards Board, Professional Practices Commission, Licensure Review Committee**

Teacher Licensure & Accreditation | KSDE | Landon State Office Building | 900 SW Jackson Street, Suite 106 | Topeka, Kansas 66612-1212 | Phone: 785-296-2288 | www.ksde.org

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**Nominee-Complete This Form and Enclose a Copy of Resume or Vita**

**Name of Board/Commission/Committee:**

- [ ] Professional Standards Board
- [x] Licensure Review Committee
- [ ] Professional Practices Commission
- [ ] Regulations Committee
- [ ] Evaluation Review Committee
- [ ] Policies and Procedures Committee

Nominated by (organization) KSSA Date 2/7/2017

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<td>Holcomb USD 363</td>
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**Please state briefly:**

**Qualifications** for this appointment as set forth in the statute or policies developed by the Advisory Council. These qualifications include:
- currently certified and actively practicing in the immediately preceding three years, or serving as a member of the faculty of an institution of post-secondary education. PTA and KASB representatives are excluded from meeting these qualifications.
- Master of Science degree from KSU in Curriculum & Instruction. Multi-Cultural Education
- Kansas Professional Teaching License, since 1977

**Working and educational experience** which might be pertinent to this appointment.

- Kansas Superintendent of Schools - 1999-2016. USD 342 McLouth (12 years). USD 363 Holcomb (6 years)
- Kansas Principal and Assistant Superintendent - 1990-1999. USD 309. Nickerson-South Hutchinson
- Educational Service Center - ESSDACK 1989-1990
- Kansas Teacher - 1977-1989 - USD 383, Manhattan

**Nominee represents school district or post-secondary institution size of:**

- [ ] 0-400
- [x] 400-1200
- [ ] 1200-2500
- [ ] 2500-5000
- [ ] 5000 and over

**Nominee represents an area that provides a geographical balance to the committee.**

- [ ] Yes
- [x] No

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The Kansas State Department of Education does not discriminate on the basis of race, color, national origin, sex, disability, or age in its programs and activities and provides equal access to the Boy Scouts and other designated youth groups. The following person has been designated to handle inquiries regarding the non-discrimination policies: KSDE General Counsel, Office of General Counsel, KSDE, Landon State Office Building, 900 SW Jackson, Suite 106, Topeka, KS 66612-1212, (785) 296-3201
Jean J. Rush

102 Shalyn Pl.            (785) 691-7038
Holcomb, Kansas 67851        jeanrush55@gmail.com

Professional Profile:
To secure an educational position that will utilize my leadership skills and educational knowledge for the benefit of students, staff and community members.

Administrative Experience:

2011-Present        USD 363, Holcomb School District        Holcomb, KS
Superintendent
- Provided educational leadership for a staff of approximately 120 employees. The district is ranked 13th on the 2016 Best School Districts in Kansas (www.k12.niche.com).
- Assisting the Board of Education with a $14 million bond issue.
- Increased the district’s cash balance in Capital Outlay and Contingency Reserve Funds during volatile fiscal conditions.

1999-2011        USD 342, McLouth School District        McLouth, KS
Superintendent
- Provided educational leadership for a staff of approximately 80 employees. Implemented programs to promote student achievement. The district ranked 14th as a Top Area School District by Kansas City’s Ingram’s Business Magazine (January 2010).
- Assisted with a $1 million Lease-Purchase building project.
- Administered all district, state and federal program budgets.
- Wrote and managed approximately 30 grants that totaled over $775,000.
- Participated in the Kansas State Department of Education Leadership Academy and Distributed Leadership professional development programs.

1993-1999        USD 309, Nickerson-South Hutchinson        Hutchinson, KS
Assistant Superintendent
- Facilitated all district curriculum and school improvement processes for five school buildings located in three communities.
- Monitored student achievement progress and designed the district’s professional development program.
- Administered and managed all federal and state educational programs.
- Assisted with a multi-million dollar bond project.

1991-1993        USD 309, Nickerson-South Hutchinson        Hutchinson, KS
Principal, South Hutchinson Grade School (K-8)
- Provided leadership for 40 staff members and 325 students.
- Facilitated the implementation of an after-school tutoring program, which significantly improved student math achievement.
Administered the building budget as allocated.

1990-1991 ESSDACK Regional Service Center Hutchinson, KS
Curriculum / Staff Development Specialist
- Facilitated staff development services for 2,300 staff members in 22 school districts.
- Served as Curriculum Director for four rural districts.

Other Educational Agencies:
- Washburn Technical (formerly Kaw Technical School), served twelve years on the superintendent’s advisory council and was selected for four consecutive years to serve on the Finance Sub-Committee.
- Kaw Valley Cooperative Purchasing, elected to serve three years as the President and Program Chair.

Other Work Related Experience:
- 1990 Kansas State University, Student Teacher Supervisor Manhattan, KS
- 1989 Kansas State University, Temporary Instructor Manhattan, KS

Education:
- Completed 57 hours beyond the MS degree in District Level Administration.
- M.S., Kansas State University, Manhattan, Kansas.
  Degree completed May 1989.
  Major Field: Curriculum and Instruction
  Minor Field: Multicultural Education
- B.S., Emporia State University, Emporia, Kansas
  Degree completed May 1977.
  Major Field: Elementary Education
  Minor Field: Special Education

Certification:
- State of Kansas Teaching License
  Endorsements: District School Administrator (K-12); Building Administrator (K-9); Elementary (K-9)

Professional Associations:
- Association of Supervision & Curriculum Development
- Kansas Association of School Administrators & United School Administrators

Community Activities:
- Garden City Church of the Nazarene, Sunday School Teacher (High School)
- Rotary
- Finney County Chamber of Commerce
To: Commissioner Randy Watson
From: Kent Reed
Subject: Discussion on HB 2048 (Erin's Law) and trauma-informed care in schools

Board Goals: Provide an effective educator in every classroom

Staff will define and update the Board on Erin's Law (HB2048) as well as provide an overview on what KSDE is doing to address it. This includes an update on the cross-sector work group for trauma-informed care.
To: Commissioner Randy Watson  
From: Gwen Kramer, Wendy Fritz  
Subject: Personnel Report  
Board Goals: Governmental Responsibility

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Total Employees 232* as of Pay Period Ending 1/28/2017. Count does not include Board Members.

*Excludes classified temporaries and agency reallocations, promotions, demotions, and transfers. Includes employees terminating to go to a different state agency (which are not included in annual turnover rate calculations).
REQUEST AND RECOMMENDATION FOR BOARD ACTION

Agenda Number: 17 b.

Meeting Date: 3/14/2017

Staff Initiating: Commissioner:
Gwen Kramer Wendy Fritz Randy Watson

Item Title:

Act on appointments of persons to Unclassified Special Projects Positions

Board Goals:

Governmental Responsibility

Recommended Motion:

It is moved that the Kansas State Board of Education confirm the appointments of:

Susie Wilbur to the position of Education Program Consultant on the Early Childhood, Special Education, and Title Services team, effective Feb. 6, 2017, at an annual salary of $56,118.40. This position is funded by State General fund and Early Childhood Federal funds.

Denise Davis to the position of Quality Assurance Technician on the Information Technology team, effective Feb. 6, 2017, at an annual salary of $46,192.80. This position is funded by Title VI B IDEA and Consolidated Administrative Pool.

Phillip Salyer to the position of Applications Developer on the Information Technology team, effective Feb. 6, 2017, at an annual salary of $44,990.40. This position is funded by State General Fund and Carl Perkins.

Robyn Meinholdt to the position of Administrative Specialist on the Teacher Licensure and Accreditation team, effective Feb. 13, 2017, at an annual salary of $29,744. This position is funded by State General Fund and Teacher Certified Fee Fund.

Debra Smith to the position of Public Service Administrator on the Fiscal Services and Operations team, effective Feb. 20, 2017, at an annual salary of $37,440. This position is funded by State General Fund.

Jordan Christian to the position of Public Service Executive on the Early Childhood, Special Education, and Title Services team, effective Feb. 27, 2017, at an annual salary of $53,414.40. This position is funded by Early Childhood.

Explanation of Situation Requiring Action:

Susie Wilbur will manage technical assistance and guidance to Kansas School districts in order to implement specific programs within the Kansas Accreditation, Individuals with Disabilities Education (IDEA) Act, the Elementary and Secondary Education (ESEA), and early childhood programs. This position is critical in order to uphold KSDE’s responsibility to provide leadership, technical assistance and ensure compliance with state and federal laws and regulations.

(continued)
Denise Davis will manage initiatives and priorities of the Early Childhood, Special Education and Title Services program area. The position is responsible for ensuring the applications and data implemented in conjunction with various program areas are accurate, meet specified functionality and quality criteria, and meet the KSDE application standards. This position involves complex and detailed processes related to testing and validation of application software, data validation, data documentation, and reporting. The work requires close collaboration and coordination with staff from several KSDE program areas, and potentially with staff from other state agencies, contractors, and vendors. The Quality Assurance Technician is also involved in updating requirements specifications, business rules, creating test strategies and test cases, and successfully executing testing procedures.

Phillip Salyer will manage the advanced technical work required to support the applications primarily in the Career Standards and Assessments team program area. The position is responsible for programming and modifying application software, identifying and documenting application requirements, and preparing system designs and detailed specifications from which application software is written. Functions include maintenance of websites and web applications; analysis, design, programming and maintenance of applications; design, development and maintenance of data sources; troubleshooting and resolving application issues; and addressing data requests as assigned; and supporting data inquiries as assigned. Applications and procedures will adhere to standards and security procedures of the IT department and the agency. The tasks of this position directly support the agency’s ability to communicate with schools, districts and the public.

Robyn Meinholdt will manage daily operations and serves as the Lead Assistant to the Director of Teacher Licensure and Accreditation (TLA) team.

Debra Smith will manage and is responsible for processing approved purchase authorizations and ordering most equipment and supplies for the agency. This position assists with managing the agency’s inventory and related property records by affixing property stickers to all newly acquired equipment, preparing inventory disposition forms and assisting with the annual physical inspection of inventory. This position also oversees the agency’s leased facilities and supervises the agency print shop and associated staff.

Jordan Christian will manage and provide leadership and ensure compliance with state and federal laws and regulations for the Individuals with Disabilities Education Act 2004 (IDEA) part C and B, Kansas Exceptional Children’s Act, as well as the Elementary & Secondary Education Act, and Kansas Accreditation. To fulfill this purpose, this position will serve as the coordinator for the Kansas Coordinating Council on Early Childhood Developmental Services. The mission of the Kansas Coordinating Council on Early Childhood Developmental Services is to ensure that a comprehensive service delivery system of integrated services is available in Kansas to all children with a disability who experience (or are at risk for) developmental delays from birth through age 5 and their families.
REQUEST AND RECOMMENDATION FOR BOARD ACTION

Staff Initiating: Susan Helbert
Director: Scott Myers
Commissioner: Randy Watson
Meeting Date: 3/14/2017

Item Title:
Act on recommendations for Licensure Waivers

Board Goals:
Provide an effective educator in every classroom

Recommended Motion:
It is moved that the Kansas State Board of Education accept the attached recommendations for licensure waivers.

Explanation of Situation Requiring Action:
SBR 91-31-42 allows any school district to request a waiver from one or more of their accreditation requirements imposed by the State Board. Requests by schools to waive school accreditation regulation SBR 91-31-34 (appropriate certification/licensure of staff) are reviewed by the staff of Teacher Licensure and Accreditation. The district(s) must submit an application verifying that the individual teacher for whom they are requesting the waiver is currently working toward achieving the appropriate endorsement on his/her certificate/license. A review of the waiver application is completed before the waiver is recommended for approval.

The attached requests have been reviewed by the Teacher Licensure and Accreditation staff and are being forwarded to the State Board of Education for action. If approved, school districts will be able to use the individuals in an area outside the endorsement on their license, and in the area for which they have submitted an approved plan of study. The waiver is valid for one school year.
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<td>Moe</td>
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<td>D0293</td>
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<tr>
<td>D0305</td>
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<td>D0345</td>
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<td>Wellington</td>
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<tr>
<td>D0382</td>
<td>Pratt</td>
<td>Shari</td>
<td>Norman</td>
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<tr>
<td>D0385</td>
<td>Andover</td>
<td>Corbie</td>
<td>Leiker</td>
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<td>Kimberly</td>
<td>Whiteside</td>
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<tr>
<td>D0418</td>
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<td>Jeanie</td>
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<td>D0418</td>
<td>McPherson</td>
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* First Renewal  **Final Renewal
| D0418 | McPherson       | Jody Unruh | High Incidence Special Ed. - extension on number of days on an Emergency Substitute License | Approved |
| D0475 | Geary Co. Schools | Kelly Gorham | High Incidence Special Ed. | Approved |
| D0475 | Geary Co. Schools | Melissa Howe | Early Childhood Special Ed. | Approved |
| D0475 | Geary Co. Schools | Lauren Yamashita | High Incidence Special Ed. | Approved |
| D0480 | Liberal | Tori Garrison | Early Childhood Special Ed. | Approved |
| D0480 | Liberal | Tera Ingalsbe | Low Incidence Special Ed. | Approved |
| D0497 | Lawrence | Emily Seaman | Library Media Specialist | Approved |
| D0500 | Kansas City | Charles Jean-Baptiste | High Incidence Special Ed. - extension on number of days on an Emergency Substitute License | Approved |
| D0500 | Kansas City | Karen Demster | High Incidence Special Ed. - extension on number of days on an Emergency Substitute License | Approved |
| D0500 | Kansas City | Katharine Grant | Physical Science - extension on number of days on an Emergency Substitute License | Approved |
| D0500 | Kansas City | Danisha Roach | High Incidence Special Ed. - extension on number of days on an Emergency Substitute License | Approved |
| D0501 | Topeka Public Sch. | Joseph McGann | High Incidence Special Ed. | Approved |
| D0501 | Topeka Public Sch. | Alyssa Burket | High Incidence Special Ed. | Approved |
| D0501 | Topeka Public Sch. | Amanda Tucker | High Incidence Special Ed. | Approved |
| D0512 | Shawnee Mission Public Schools | Jennifer Melloway | Low Incidence Special Ed. | Approved |
| D0605 | South Central KS Special Ed Coop | Alicia Barnett | High Incidence Special Ed. | Approved* |
| D0607 | Tri County Special Education Coop | Jennifer Martin | Low Incidence Special Ed. | Approved |
| D0608 | Northeast KS Ed Service Center | Danielle Torres | High Incidence Special Ed. | Approved |
| D0608 | Northeast KS Ed Service Center | Gale Grable | Early Childhood Special Ed. | Approved* |
| D0610 | Reno County Education Coop | Diana McDaniel | High Incidence Special Ed. | Approved |
| D0613 | Southwest Kansas Area Coop | Gustaf Lindstrom | High Incidence Special Ed. | Approved |
| D0613 | Southwest Kansas Area Coop | Angela Tremain | High Incidence Special Ed. | Approved |
| D0613 | Southwest Kansas Area Coop | Hannah Elliott | High Incidence Special Ed. | Approved |

* First Renewal  **Final Renewal
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<th>ID</th>
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<td>Van Der Weg</td>
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<td>Harvey Co. Special Ed. Coop</td>
<td>Tiffani</td>
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</tbody>
</table>

* First Renewal
**Final Renewal
REQUEST AND RECOMMENDATION FOR BOARD ACTION

Act on recommendations for continued funding of Title II Part B Math and Science Partnership Grants for 2017-2018

Board Goals:

Provide a flexible and efficient delivery system to meet our students’ varied and changing needs

Recommended Motion:

It is moved that the Kansas State Board of Education approve continued funding of Title II Part B Math and Science Partnership Grants for 2017-2018 in the amounts specified below contingent upon demonstration that applicants are meeting grant requirements.

Explanation of Situation Requiring Action:

The Title II Part B Mathematics and Science Partnerships, one part of Public Law 107-110 “No Child Left Behind” Act, are intended to increase the academic achievement of students in mathematics and science by enhancing the content knowledge and teaching skills of classroom teachers. Kansas’ grants focus on improving mathematics knowledge of K-12 teachers through two-week intensive professional development institutes and at least four days of follow-up, job-embedded professional development throughout the school year.

Kansas received $1,086,431 of which $1,032,109 must be awarded to school districts specifically through a competitive grant process that partners a high-need school district, an institution of higher education mathematics teacher preparation program and a mathematics or engineering department.

The grants are for three years with year two and three funding dependent on continued Congressional funding and grantees fulfilling grant requirements. The range of funding for this year is $123,000 - $150,000. The amounts below are contingent upon demonstration that applicants are meeting grant requirements.

Recommended for third year of funding:

Topeka, USD 501 – the amount $149,027
in partnership with: Fort Hays State University, Westar Energy

Newman University – the amount of $123,000
in partnership with: USD 461, USD 264, USD 490, USD 357, Diocese of Wichita Catholic Schools, Westar Energy, IBM

(continued)
Wichita, USD 259 – the amount of $145,960
in partnership with: Fort Hays State University, Exploration Place

Recommended for second year of funding:

Kansas State University – the amount $200,000
in partnership with: USD 475, USD 427, USD 383, and USD 320
REQUEST AND RECOMMENDATION FOR BOARD ACTION

Agenda Number: 17 e (1)

Meeting Date: 3/14/2017

Staff Initiating: Deputy Commissioner: Commissioner:
Dale Dennis Dale Dennis Randy Watson

Item Title:
Act on request from USD 204 Bonner Springs, Wyandotte County, to hold a bond election

Board Goals:
Governmental Responsibility

Recommended Motion:

It is moved that the Kansas State Board of Education issue an Order authorizing USD 204, Bonner Springs, Wyandotte County, to hold an election on the question of issuing bonds in excess of the district's general bond debt limitation.

Explanation of Situation Requiring Action:

Under KSA 75-2315 et seq., a school district may request that the State Board of Education authorize the district to hold an election on the question of issuing bonds in an amount that would cause the district's bonded indebtedness to exceed the district's general bond debt limitation. USD 204, Bonner Springs, Wyandotte County, has made such a request. If approved, the district could hold an election on the question of whether additional bonds be issued. If the voters approve such action, the district could issue the bonds.

USD 204 plans to use the bond proceeds to pay the costs to: (1) construct, furnish and equip additions to Bonner Springs High School, Clark Middle School, Bonner Springs Elementary School, Edwardsville Elementary School and Delaware Ridge Elementary School; (2) repair, renovate, remodel, make additions to and equip and furnish existing school district facilities; (3) construct, furnish and equip a new career and technical education facility adjacent to Bonner Springs High School; (4) construct, furnish and equip cafeteria/kitchen improvements to Edwardsville Elementary School; (5) renovate and improve school entrance areas for the purposes of enhanced student and staff safety and security at Bonner Springs Elementary School, Edwardsville Elementary School, Delaware Ridge Elementary School and Clark Middle School; (6) renovate and improve Bonner Springs High School including a new science classroom addition, physical education locker rooms addition/renovations, new finishes and casework replacement in most classrooms, locker rooms, weight room and connections to existing building; (7) renovate and improve Clark Middle School including new classroom addition, cafeteria addition, renovations to classrooms and kitchen upgrades; and (8) major HVAC and utilities improvements to all school buildings.

Based upon the following criteria, staff recommends that this bond application be approved.

1. The vote to submit the bond application by the local board of education was unanimous.
2. The district is experiencing a growth in enrollment.
3. The community was involved in the process of the building proposal.

(continued)
4. All required forms were properly filed with us, along with an appropriate notice for the election.
5. The district outlined the needs for the building project by responding to all questions required by the State Board of Education.
6. An outside consultant was utilized in determining the school district needs.
7. The age of the existing building(s) appears to justify a bond election.
8. The application indicates that the building(s) are in need of major repairs in order to provide the necessary student programs.
### Summary of Appeal to State Board of Education to Allow Local Vote on Exceeding Debt Limit

**Unified School District 204-Bonner Springs**  
County: Wyandotte

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Amount/Percentage</th>
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<tbody>
<tr>
<td>1.</td>
<td>Current equalized assessed tangible valuation *</td>
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<tr>
<td>2.</td>
<td>Percentage of bond debt limit</td>
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<tr>
<td>3.</td>
<td>Amount of bond debt limit</td>
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<td>4.</td>
<td>State Aid Percentage</td>
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*Includes assessed valuation of motor vehicle

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<tr>
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<th>Percent of Equalized Assessed Valuation - Current Year</th>
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<td>5.</td>
<td>Amount of bond indebtedness at present time</td>
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<tr>
<td>6.</td>
<td>Amount of bond indebtedness requested</td>
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<td>7.</td>
<td>Total amount of bond indebtedness if request approved (Lines 5 + 6)</td>
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<tr>
<td>8.</td>
<td>Estimated amount of bond indebtedness authorized without approval</td>
</tr>
<tr>
<td>9.</td>
<td>Amount of bond indebtedness above bond debt limit requested</td>
</tr>
</tbody>
</table>

**Forms Requested**

- (X) 5-210-118 General Information
- (X) 5-210-106 Resolution
- (X) 5-210-108 Publication Notice
- (X) 5-210-110 Application
- (X) 5-210-114 Equalized Assessed Valuation
- (X) Schematic floor plan of the proposed facilities
- (X) Map of the school district showing present facilities
- (X) Small map of the school district showing the adjoining school districts
- (X) Map of the school district showing proposed facilities

**Date**

- February 8, 2017

**Signatures**

- Craig Neuenswander, Director, School Finance
- Dale M. Dennis, Deputy Commissioner
Staff Initiating: Dale Dennis  
Deputy Commissioner: Dale Dennis  
Commissioner: Randy Watson  
Meeting Date: 3/14/2017

Item Title:

Act on request from USD 252, Southern Lyon County, Lyon County, to hold a bond election

Board Goals:

Governmental Responsibility

Recommended Motion:

It is moved that the Kansas State Board of Education issue an Order authorizing USD 252, Southern Lyon County, Lyon County, to hold an election on the question of issuing bonds in excess of the district's general bond debt limitation.

Explanation of Situation Requiring Action:

Under KSA 75-2315 et seq., a school district may request that the State Board of Education authorize the district to hold an election on the question of issuing bonds in an amount that would cause the district's bonded indebtedness to exceed the district's general bond debt limitation. USD 252, Southern Lyon County, Lyon County, has made such a request. If approved, the district could hold an election on the question of whether additional bonds be issued. If the voters approve such action, the district could issue the bonds.

USD 252 plans to use the bond proceeds to pay a portion of the costs to: construct, furnish and equip improvements to Neosho Rapids Elementary School, Hartford Junior and Senior High School, Olpe Elementary School, and Olpe Junior and Senior High School including additions and renovations to existing facilities for enhanced safety and security, increased educational and operational efficiencies, infrastructure, building, technology and HVAC improvements.

Based upon the following criteria, staff recommends that this bond application be approved.

1. The vote to submit the bond application by the local board of education was unanimous.
2. The community was involved in the process of the building proposal.
3. All required forms were properly filed with us, along with an appropriate notice for the election.
4. The district outlined the needs for the building project by responding to all questions required by the State Board of Education.
5. An outside consultant was utilized in determining the school district needs.
6. The age of the existing building(s) appears to justify a bond election.
7. The application indicates that the building(s) are in need of major repairs in order to provide the necessary student programs.
Summary of Appeal to State Board of Education to Allow Local Vote on Exceeding Debt Limit

<table>
<thead>
<tr>
<th>Unified School District 252-Southern Lyon County</th>
<th>County: Lyon</th>
</tr>
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<tbody>
<tr>
<td>1. Current equalized assessed tangible valuation *</td>
<td>$38,766,367</td>
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<td>3. Amount of bond debt limit</td>
<td>$5,427,291</td>
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<td>4. State Aid Percentage</td>
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<td>* Includes assessed valuation of motor vehicle</td>
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<table>
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<tr>
<th>Percent of Equalized Assessed Valuation - Current Year</th>
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<tbody>
<tr>
<td>5. Amount of bond indebtedness at present time</td>
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<td>8. Estimated amount of bond indebtedness authorized without approval</td>
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<td>9. Amount of bond indebtedness above bond debt limit requested</td>
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Forms Requested

- (X) 5-210-118 General Information
- (X) 5-210-106 Resolution
- (X) 5-210-108 Publication Notice
- (X) 5-210-110 Application
- (X) 5-210-114 Equalized Assessed Valuation
- (X) Schematic floor plan of the proposed facilities
- (X) Map of the school district showing present facilities
- (X) Small map of the school district showing the adjoining school districts
- (X) Map of the school district showing proposed facilities

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February 15, 2017

Craig Neuenswander
Director, School Finance

February 15, 2017

Dale M. Dennis
Deputy Commissioner
REQUEST AND RECOMMENDATION FOR BOARD ACTION

Item Title:
Act on request from USD 385, Andover, Butler County, to hold a bond election

Board Goals:
Governmental Responsibility

Recommended Motion:
It is moved that the Kansas State Board of Education issue an Order authorizing USD 385, Andover, Butler County, to hold an election on the question of issuing bonds in excess of the district's general bond debt limitation.

Explanation of Situation Requiring Action:
Under KSA 75-2315 et seq., a school district may request that the State Board of Education authorize the district to hold an election on the question of issuing bonds in an amount that would cause the district's bonded indebtedness to exceed the district's general bond debt limitation. USD 385, Andover, Butler County, has made such a request. If approved, the district could hold an election on the question of whether additional bonds be issued. If the voters approve such action, the district could issue the bonds. USD 385 plans to use the bond proceeds to pay the costs for the following.

Proposition 1 - (1) construct, furnish and equip additions to and make renovations and other improvements (including storm shelters and controlled-access entrances, as needed) to existing district facilities: Cottonwood Elementary, Robert Martin Elementary, Prairie Creek Elementary, Sunflower Elementary, Wheatland Elementary, Andover Middle School, Andover Central Middle School, and Andover Central High School for enhanced safety and security, improved teaching and learning environments, educational and building operating efficiencies, ADA and other code compliance, and improved student, staff, and patron accessibility; (2) construct, furnish and equip a new Andover High School facility to be located on the existing Andover High School site within the district; (3) acquire and improve a site and construct, furnish and equip a new Meadowlark Elementary School facility on such site to be located within the district; (4) make upgrades and improvements to district athletic facilities and support areas; and (5) make improvements to the existing Meadowlark School to house district support functions.

Proposition 2 - (1) acquire and improve a site and construct, furnish and equip a new Career and Professional Studies Center for district high schools; (2) construct and equip a new swimming pool facility to be located at a site within the district; and (3) acquire and install new turf fields at certain district varsity softball and baseball fields.

Based upon the following criteria, staff recommends that this bond application be approved.
1. The vote to submit the bond application by the local board of education was unanimous.
2. The district is experiencing a growth in enrollment.
3. The community was involved in the process of the building proposal.
4. All required forms were properly filed with us, along with an appropriate notice for the election.
5. The district outlined the needs for the building project by responding to all questions required by the State Board of Education.
6. An outside consultant was utilized in determining the school district needs.
7. The age of the existing building(s) appears to justify a bond election.
8. The application indicates that the building(s) are in need of major repairs in order to provide the necessary student programs.
### Summary of Appeal to State Board of Education to Allow Local Vote on Exceeding Debt Limit

<table>
<thead>
<tr>
<th>Unified School District 385-Andover</th>
<th>County: Butler</th>
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<tbody>
<tr>
<td>1. Current equalized assessed tangible valuation *</td>
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<td>4. State Aid Percentage</td>
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<td>* Includes assessed valuation of motor vehicle</td>
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<td>5. Amount of bond indebtedness at present time</td>
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<table>
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<tr>
<th><strong>Forms Requested</strong></th>
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<tr>
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</tr>
<tr>
<td>(X) 5-210-114 Equalized Assessed Valuation</td>
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<thead>
<tr>
<th>Date</th>
<th>Signature</th>
</tr>
</thead>
</table>
| February 13, 2017 | Craig Neuenswander  
Director, School Finance |
| February 13, 2017 | Dale M. Dennis  
Deputy Commissioner |
Item Title:

Act on request from USD 475, Geary County Schools, Geary County, to hold a bond election

Board Goals:

Governmental Responsibility

Recommended Motion:

It is moved that the Kansas State Board of Education issue an Order authorizing USD 475, Geary County Schools, Geary County, to hold an election on the question of issuing bonds in excess of the district's general bond debt limitation.

Explanation of Situation Requiring Action:

Under KSA 75-2315 et seq., a school district may request that the State Board of Education authorize the district to hold an election on the question of issuing bonds in an amount that would cause the district's bonded indebtedness to exceed the district's general bond debt limitation. USD 475, Geary County Schools, Geary County, has made such a request. If approved, the district could hold an election on the question of whether additional bonds be issued. If the voters approve such action, the district could issue the bonds.

USD 475 plans to use the bond proceeds to pay the costs to: construct, furnish and equip a new high school facility on a new site to address aging facilities that present significant challenges regarding both educational delivery and infrastructural issues; improve safety and security through installation of a storm shelter and security systems; upgrade/replace technological capabilities and devices; coordinate educational and administrative support throughout the building; and accommodate student population fluctuations due to the presence of Fort Riley through the construction of a new high school and land purchases.

Based upon the following criteria, staff recommends that this bond application be approved.

1. The community was involved in the process of the building proposal.
2. All required forms were properly filed with us, along with an appropriate notice for the election.
3. The district outlined the needs for the building project by responding to all questions required by the State Board of Education.
4. An outside consultant was utilized in determining the school district needs.
5. The age of the existing building(s) appears to justify a bond election.
6. The application indicates that the building(s) are in need of major repairs in order to provide the necessary student programs.
Summary of Appeal to State Board of Education to Allow Local Vote on Exceeding Debt Limit

Unified School District 475-Geary County  
County: Geary

1. Current equalized assessed tangible valuation *  $244,469,020
2. Percentage of bond debt limit  14%
3. Amount of bond debt limit  $34,225,662
4. State Aid Percentage  48%

* Includes assessed valuation of motor vehicle

5. Amount of bond indebtedness at present time  $22,185,000  9.0
6. Amount of bond indebtedness requested  $105,000,000  43.0
7. Total amount of bond indebtedness if request approved (Lines 5 + 6)  $127,185,000  52.0
8. Estimated amount of bond indebtedness authorized without approval  $34,225,662  14.0
9. Amount of bond indebtedness above bond debt limit requested  $92,959,338  38.0

Forms Requested
(X) 5-210-118 General Information  
(X) 5-210-106 Resolution  
(X) 5-210-108 Publication Notice  
(X) 5-210-110 Application  
(X) 5-210-114 Equalized Assessed Valuation  
(X) Schematic floor plan of the proposed facilities  
(X) Map of the school district showing present facilities  
(X) Small map of the school district showing the adjoining school districts  
(X) Map of the school district showing proposed facilities

February 13, 2017  Craig Neuenswander  
Date  Director, School Finance

February 13, 2017  Dale M. Dennis  
Date  Deputy Commissioner
REQUEST AND RECOMMENDATION FOR BOARD ACTION

Item Title:

Act on request from USD 497, Lawrence, Douglas County, to hold a bond election

Board Goals:

Governmental Responsibility

Recommended Motion:

It is moved that the Kansas State Board of Education issue an Order authorizing USD 497, Lawrence, Douglas County, to hold an election on the question of issuing bonds in excess of the district's general bond debt limitation.

Explanation of Situation Requiring Action:

Under KSA 75-2315 et seq., a school district may request that the State Board of Education authorize the district to hold an election on the question of issuing bonds in an amount that would cause the district's bonded indebtedness to exceed the district's general bond debt limitation. USD 497, Lawrence, Douglas County, has made such a request. If approved, the district could hold an election on the question of whether additional bonds be issued. If the voters approve such action, the district could issue the bonds.

USD 497 plans to use the bond proceeds to pay the costs to: (1) construct additions to and renovate, improve, repair, equip and furnish Lawrence High School, Lawrence Free State High School, Liberty Memorial Central Middle School, South Middle School, Southwest Middle School, West Middle School and the College and Career Center; and (2) make technology improvements throughout the district.

Based upon the following criteria, staff recommends that this bond application be approved.
1. The vote to submit the bond application by the local board of education was unanimous.
2. The district is experiencing a growth in enrollment.
3. The community was involved in the process of the building proposal.
4. All required forms were properly filed with us, along with an appropriate notice for the election.
5. The district outlined the needs for the building project by responding to all questions required by the State Board of Education.
6. An outside consultant was utilized in determining the school district needs.
7. The age of the existing building(s) appears to justify a bond election.
8. The application indicates that the building(s) are in need of major repairs in order to provide the necessary student programs.
### Summary of Appeal to State Board of Education to Allow Local Vote on Exceeding Debt Limit

Unified School District 497-Lawrence  
County: Douglas

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Current equalized assessed tangible valuation *</td>
<td>$1,173,511,617</td>
</tr>
<tr>
<td>2.</td>
<td>Percentage of bond debt limit</td>
<td>14%</td>
</tr>
<tr>
<td>3.</td>
<td>Amount of bond debt limit</td>
<td>$164,291,626</td>
</tr>
<tr>
<td>4.</td>
<td>State Aid Percentage</td>
<td>0%</td>
</tr>
</tbody>
</table>

* Includes assessed valuation of motor vehicle

<table>
<thead>
<tr>
<th>Percent of Equalized Assessed Valuation - Current Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Amount of bond indebtedness at present time</td>
</tr>
<tr>
<td>6. Amount of bond indebtedness requested</td>
</tr>
<tr>
<td>7. Total amount of bond indebtedness if request approved (Lines 5 + 6)</td>
</tr>
<tr>
<td>8. Estimated amount of bond indebtedness authorized without approval</td>
</tr>
<tr>
<td>9. Amount of bond indebtedness above bond debt limit requested</td>
</tr>
</tbody>
</table>

### Forms Requested

- (X) 5-210-118 General Information
- (X) 5-210-106 Resolution
- (X) 5-210-108 Publication Notice
- (X) 5-210-110 Application
- (X) 5-210-114 Equalized Assessed Valuation
- (X) Schematic floor plan of the proposed facilities
- (X) Map of the school district showing present facilities
- (X) Small map of the school district showing the adjoining school districts
- (X) Map of the school district showing proposed facilities

February 13, 2017  
Craig Neuenswander  
Director, School Finance

February 13, 2017  
Dale M. Dennis  
Deputy Commissioner
REQUEST AND RECOMMENDATION FOR BOARD ACTION

Agenda Number: 17 f. (1)

Meeting Date: 3/14/2017

Staff Initiating: Deputy Commissioner: Commissioner:
Dale Dennis Dale Dennis Randy Watson

Item Title:

Act on request from USD 204, Bonner Springs, Wyandotte County, to receive Capital Improvement (Bond & Interest) State Aid

Board Goals:

Governmental Responsibility

Recommended Motion:

It is moved that the Kansas State Board of Education issue an Order authorizing USD 204, Bonner Springs, Wyandotte County, to receive capital improvement (bond & interest) state aid as authorized by law.

Explanation of Situation Requiring Action:

Under 2016 Senate Bill 323, a school district may request that the State Board of Education authorize the district to receive capital improvement (bond & interest) state aid. USD 204, Bonner Springs, Wyandotte County, has made such a request. If approved, the district would receive capital improvement (bond & interest) state aid as provided by law. If the request is not approved, the district will not receive any capital improvement state aid.

USD 230 plans to use the bond proceeds to pay the costs to: (1) construct, furnish and equip additions to Bonner Springs High School, Clark Middle School, Bonner Springs Elementary School, Edwardsville Elementary School and Delaware Ridge Elementary School; (2) repair, renovate, remodel, make additions to and equip and furnish existing school district facilities; (3) construct, furnish and equip a new career and technical education facility adjacent to Bonner Springs High School; (4) construct, furnish and equip cafeteria/kitchen improvements to Edwardsville Elementary School; (5) renovate and improve school entrance areas for the purposes of enhanced student and staff safety and security at Bonner Springs Elementary School, Edwardsville Elementary School, Delaware Ridge Elementary School and Clark Middle School; (6) renovate and improve Bonner Springs High School including a new science classroom addition, physical education locker rooms addition/renovations, new finishes and casework replacement in most classrooms, locker rooms, weight room and connections to existing building; (7) renovate and improve Clark Middle School including new classroom addition, cafeteria addition, renovations to classrooms and kitchen upgrades; and (8) major HVAC and utilities improvements to all school buildings.

The application contains the following non-instructional-related items: elementary cafeteria.

Based upon the following criteria, staff recommends that this application for capital improvement (bond & interest) state aid be approved.

1. The vote to submit the application for state aid by the local board of education was unanimous.
2. The district is experiencing a growth in enrollment.
3. The community was involved in the process of the building proposal.
4. All required forms were properly filed with us, along with an appropriate notice for the election.
5. The district outlined the needs for the building project by responding to all questions required by the State Board of Education.
6. An outside consultant was utilized in determining the school district needs.
7. The age of the existing building(s) appears to justify a bond election.
8. The application indicates that the building(s) are in need of major repairs in order to provide the necessary student programs.
# Summary of Appeal to State Board of Education for State Aid

<table>
<thead>
<tr>
<th>Unified School District 204-Bonner Springs</th>
<th>County: Wyandotte</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Current equalized assessed tangible valuation *</td>
<td>$191,581,913</td>
</tr>
<tr>
<td>2. Percentage of bond debt limit</td>
<td>14%</td>
</tr>
<tr>
<td>3. Amount of bond debt limit</td>
<td>$26,821,468</td>
</tr>
<tr>
<td>4. State Aid Percentage</td>
<td>12%</td>
</tr>
<tr>
<td>* Includes assessed valuation of motor vehicle</td>
<td></td>
</tr>
<tr>
<td>5. Amount of bond indebtedness at present time</td>
<td>$21,280,000 11.1</td>
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<tr>
<td>6. Amount of bond indebtedness requested</td>
<td>$39,350,000 20.5</td>
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<tr>
<td>7. Total amount of bond indebtedness if request approved (Lines 5 + 6)</td>
<td>$60,630,000 31.6</td>
</tr>
<tr>
<td>8. Estimated amount of bond indebtedness authorized without approval</td>
<td>$26,821,468 14.0</td>
</tr>
<tr>
<td>9. Amount of bond indebtedness above bond debt limit requested</td>
<td>$33,808,532 17.6</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Forms Requested</th>
</tr>
</thead>
<tbody>
<tr>
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<td>(X) 5-210-106 Resolution</td>
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<tr>
<td>( ) 5-210-108 Publication Notice</td>
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<tr>
<td>(X) 5-210-110 Application</td>
</tr>
<tr>
<td>(X) 5-210-114 Equalized Assessed Valuation</td>
</tr>
<tr>
<td>(X) Schematic floor plan of the proposed facilities</td>
</tr>
<tr>
<td>(X) Map of the school district showing present facilities</td>
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<td>(X) Small map of the school district showing the adjoining school districts</td>
</tr>
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<td>(X) Map of the school district showing proposed facilities</td>
</tr>
</tbody>
</table>

February 8, 2017
Craig Neuenswander
Director, School Finance

February 8, 2017
Dale M. Dennis
Deputy Commissioner
Item Title:

Act on request from USD 252, Southern Lyon County, Lyon County, to receive Capital Improvement (Bond & Interest) State Aid

Board Goals:

Governmental Responsibility

Recommended Motion:

It is moved that the Kansas State Board of Education issue an Order authorizing USD 252, Southern Lyon County, Lyon County, to receive capital improvement (bond & interest) state aid as authorized by law.

Explanation of Situation Requiring Action:

Under 2016 Senate Bill 323, a school district may request that the State Board of Education authorize the district to receive capital improvement (bond & interest) state aid. USD 252, Southern Lyon County, Lyon County, has made such a request. If approved, the district would receive capital improvement (bond & interest) state aid as provided by law. If the request is not approved, the district will not receive any capital improvement state aid.

USD 252 plans to use the bond proceeds to pay the costs to: construct, furnish and equip improvements to Neosho Rapids Elementary School, Hartford Junior and Senior High School, Olpe Elementary School, and Olpe Junior and Senior High School including additions and renovations to existing facilities for enhanced safety and security, increased educational and operational efficiencies, infrastructure, building, technology and HVAC improvements.

The application contains the following non-instructional-related items: kitchen/lunchroom, parking, and school office.

Based upon the following criteria, staff recommends that this application for capital improvement (bond & interest) state aid be approved.

1. The vote to submit the application for state aid by the local board of education was unanimous.
2. The community was involved in the process of the building proposal.
3. All required forms were properly filed with us, along with an appropriate notice for the election.
4. The district outlined the needs for the building project by responding to all questions required by the State Board of Education.
5. An outside consultant was utilized in determining the school district needs.
6. The age of the existing building(s) appears to justify a bond election.
7. The application indicates that the building(s) are in need of major repairs in order to provide the necessary student programs.
# Summary of Appeal to State Board of Education for State Aid

## Unified School District 252-Southern Lyon County

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Amount</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Current equalized assessed tangible valuation *</td>
<td>$38,766,369</td>
<td>14.00%</td>
</tr>
<tr>
<td>2.</td>
<td>Percentage of bond debt limit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Amount of bond debt limit</td>
<td>$5,427,291</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>State Aid Percentage</td>
<td>1%</td>
<td></td>
</tr>
</tbody>
</table>

* Includes assessed valuation of motor vehicle

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Amount</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.</td>
<td>Amount of bond indebtedness at present time</td>
<td>$1,415,000</td>
<td>3.7</td>
</tr>
<tr>
<td>6.</td>
<td>Amount of bond indebtedness requested</td>
<td>$14,000,000</td>
<td>36.1</td>
</tr>
<tr>
<td>7.</td>
<td>Total amount of bond indebtedness if request approved (Lines 5 + 6)</td>
<td>$15,415,000</td>
<td>39.8</td>
</tr>
<tr>
<td>8.</td>
<td>Estimated amount of bond indebtedness authorized without approval</td>
<td>$5,427,291</td>
<td>14.0</td>
</tr>
<tr>
<td>9.</td>
<td>Amount of bond indebtedness above bond debt limit requested</td>
<td>$9,987,709</td>
<td>25.8</td>
</tr>
</tbody>
</table>

## Forms Requested

- (X) 5-210-118 General Information
- (X) 5-210-106 Resolution
- (X) 5-210-108 Publication Notice
- (X) 5-210-110 Application
- (X) 5-210-114 Equalized Assessed Valuation
- (X) Schematic floor plan of the proposed facilities
- (X) Map of the school district showing present facilities
- (X) Small map of the school district showing the adjoining school districts
- (X) Map of the school district showing proposed facilities

**February 15, 2017**

Craig Neuenswander
Director, School Finance

**February 15, 2017**

Dale M. Dennis
Deputy Commissioner
REQUEST AND RECOMMENDATION FOR BOARD ACTION

Item Title:
Act on request from USD 385, Andover, Butler County, to receive Capital Improvement (Bond & Interest) State Aid

Board Goals:
Governmental Responsibility

Recommended Motion:
It is moved that the Kansas State Board of Education issue an Order authorizing USD 385, Andover, Butler County, to receive capital improvement (bond & interest) state aid as authorized by law.

Explanation of Situation Requiring Action:
Under 2016 Senate Bill 323, a school district may request that the State Board of Education authorize the district to receive capital improvement (bond & interest) state aid. USD 385, Andover, Butler County, has made such a request. If approved, the district would receive capital improvement (bond & interest) state aid as provided by law. If the request is not approved, the district will not receive any capital improvement state aid. USD 385 plans to use the bond proceeds to pay the following.

Proposition 1 - (1) construct, furnish and equip additions to and make renovations and other improvements (including storm shelters and controlled-access entrances, as needed) to existing district facilities: Cottonwood Elementary, Robert Martin Elementary, Prairie Creek Elementary, Sunflower Elementary, Wheatland Elementary, Andover Middle School, Andover Central Middle School, and Andover Central High School for enhanced safety and security, improved teaching and learning environments, educational and building operating efficiencies, ADA and other code compliance, and improved student, staff, and patron accessibility; (2) construct, furnish and equip a new Andover High School facility to be located on the existing Andover High School site within the district; (3) acquire and improve a site and construct, furnish and equip a new Meadowlark Elementary School facility on such site to be located within the district; (4) make upgrades and improvements to district athletic facilities and support areas; and (5) make improvements to the existing Meadowlark School to house district support functions.

Proposition 2 - (1) acquire and improve a site and construct, furnish and equip a new Career and Professional Studies Center for district high schools; (2) construct and equip a new swimming pool facility to be located at a site within the district; and (3) acquire and install new turf fields at certain district varsity softball and baseball fields.

This application contains the following non-instructional-related items with total estimated cost of $34,195,500.

(continued)
Page 2

Proposition 1 - Improvement to athletic facilities and remodel Meadowlark School for district support functions.

Proposition 2 - New swimming pool and new turf fields at certain softball and baseball fields.

Based upon the following criteria, staff recommends that this application for capital improvement (bond & interest) state aid be approved.

1. The vote to submit the application for state aid by the local board of education was unanimous.
2. The district is experiencing a growth in enrollment.
3. The community was involved in the process of the building proposal.
4. All required forms were properly filed with us, along with an appropriate notice for the election.
5. The district outlined the needs for the building project by responding to all questions required by the State Board of Education.
6. An outside consultant was utilized in determining the school district needs.
7. The age of the existing building(s) appears to justify a bond election.
8. The application indicates that the building(s) are in need of major repairs in order to provide the necessary student programs.
## Summary of Appeal to State Board of Education for State Aid

**Unified School District 385-Andover**  
County: Butler

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Value</th>
<th>Percent of Equalized Assessed Valuation - Current Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Current equalized assessed tangible valuation *</td>
<td>$357,239,949</td>
<td>11.4%</td>
</tr>
<tr>
<td>2.</td>
<td>Percentage of bond debt limit</td>
<td>14.00%</td>
<td></td>
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<tr>
<td>3.</td>
<td>Amount of bond debt limit</td>
<td>$50,013,592</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>State Aid Percentage</td>
<td>24%</td>
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<tr>
<td>5.</td>
<td>Amount of bond indebtedness at present time</td>
<td>$40,800,000</td>
<td>11.4%</td>
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<tr>
<td>6.</td>
<td>Amount of bond indebtedness requested</td>
<td>$188,605,000</td>
<td>52.8%</td>
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<td>7.</td>
<td>Total amount of bond indebtedness if request approved (Lines 5 + 6)</td>
<td>$229,405,000</td>
<td>64.2%</td>
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<tr>
<td>8.</td>
<td>Estimated amount of bond indebtedness authorized without approval</td>
<td>$50,013,592</td>
<td>14.0%</td>
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<tr>
<td>9.</td>
<td>Amount of bond indebtedness above bond debt limit requested</td>
<td>$179,391,408</td>
<td>50.2%</td>
</tr>
</tbody>
</table>

### Forms Requested

- (X) 5-210-118 General Information
- (X) 5-210-106 Resolution
- (X) 5-210-108 Publication Notice
- (X) 5-210-110 Application
- (X) 5-210-114 Equalized Assessed Valuation
- (X) Schematic floor plan of the proposed facilities
- (X) Map of the school district showing present facilities
- (X) Small map of the school district showing the adjoining school districts
- (X) Map of the school district showing proposed facilities

---

**February 13, 2017**  
**Director, School Finance**  
Craig Neuenswander

**February 13, 2017**  
**Deputy Commissioner**  
Dale M. Dennis
REQUEST AND RECOMMENDATION FOR BOARD ACTION

Agenda Number: 17 f. (4)

Meeting Date: 3/14/2017

Item Title:

Act on request from USD 475, Geary County Schools, Geary County, to receive Capital Improvement (Bond & Interest) State Aid

Board Goals:

Governmental Responsibility

Recommended Motion:

It is moved that the Kansas State Board of Education issue an Order authorizing USD 475, Geary County Schools, Geary County, to receive capital improvement (bond & interest) state aid as authorized by law.

Explanation of Situation Requiring Action:

Under 2016 Senate Bill 323, a school district may request that the State Board of Education authorize the district to receive capital improvement (bond & interest) state aid. USD 475, Geary County Schools, Geary County, has made such a request. If approved, the district would receive capital improvement (bond & interest) state aid as provided by law. If the request is not approved, the district will not receive any capital improvement state aid.

USD 230 plans to use the bond proceeds to pay the costs to construct, furnish and equip a new high school facility on a new site to address aging facilities that present significant challenges regarding both educational delivery and infrastructural issues; improve safety and security through installation of a storm shelter and security systems; upgrade/replace technological capabilities and devices; coordinate educational and administrative support throughout the building; and accommodate student population fluctuations due to the presence of Fort Riley through the construction of a new high school and land purchases.

This application does not contain any non-instructional-related items.

Based upon the following criteria, staff recommends that this application for capital improvement (bond & interest) state aid be approved.

1. The community was involved in the process of the building proposal.
2. All required forms were properly filed with us, along with an appropriate notice for the election.
3. The district outlined the needs for the building project by responding to all questions required by the State Board of Education.
4. An outside consultant was utilized in determining the school district needs.
5. The age of the existing building(s) appears to justify a bond election.
6. The application indicates that the building(s) are in need of major repairs in order to provide the necessary student programs.
Summary of Appeal to State Board of Education for State Aid

<table>
<thead>
<tr>
<th>Unified School District 475-Geary County</th>
<th>County: Geary</th>
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</thead>
<tbody>
<tr>
<td>1. Current equalized assessed tangible valuation *</td>
<td>$244,469,000</td>
</tr>
<tr>
<td>2. Percentage of bond debt limit</td>
<td>14.00%</td>
</tr>
<tr>
<td>3. Amount of bond debt limit</td>
<td>$34,225,662</td>
</tr>
<tr>
<td>4. State Aid Percentage</td>
<td>48%</td>
</tr>
<tr>
<td>* Includes assessed valuation of motor vehicle</td>
<td></td>
</tr>
<tr>
<td>5. Amount of bond indebtedness at present time</td>
<td>$22,185,000 9.0</td>
</tr>
<tr>
<td>6. Amount of bond indebtedness requested</td>
<td>$105,000,000 43.0</td>
</tr>
<tr>
<td>7. Total amount of bond indebtedness if request approved (Lines 5 + 6)</td>
<td>$127,185,000 52.0</td>
</tr>
<tr>
<td>8. Estimated amount of bond indebtedness authorized without approval</td>
<td>$34,225,662 14.0</td>
</tr>
<tr>
<td>9. Amount of bond indebtedness above bond debt limit requested</td>
<td>$92,959,338 38.0</td>
</tr>
</tbody>
</table>

<table>
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<td>(X) 5-210-114 Equalized Assessed Valuation</td>
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</tbody>
</table>

February 13, 2017
Craig Neuenswander
Director, School Finance

February 13, 2017
Dale M. Dennis
Deputy Commissioner
REQUEST AND RECOMMENDATION FOR BOARD ACTION

Agenda Number: 17 f. (5)

Staff Initiating: Dale Dennis
Deputy Commissioner: Dale Dennis
Commissioner: Randy Watson
Meeting Date: 3/14/2017

Item Title:
Act on request from USD 497, Lawrence, Douglas County, to receive Capital Improvement (Bond & Interest) State Aid

Board Goals:
Governmental Responsibility

Recommended Motion:
It is moved that the Kansas State Board of Education issue an Order authorizing USD 497, Lawrence, Douglas County, to receive capital improvement (bond & interest) state aid as authorized by law.

Explanation of Situation Requiring Action:
Under 2016 Senate Bill 323, a school district may request that the State Board of Education authorize the district to receive capital improvement (bond & interest) state aid. USD 497, Lawrence, Douglas County, has made such a request. If approved, the district would receive capital improvement (bond & interest) state aid as provided by law. If the request is not approved, the district will not receive any capital improvement state aid.

USD 497 plans to use the bond proceeds to pay the costs to: (1) construct additions to and renovate, improve, repair, equip and furnish Lawrence High School, Lawrence Free State High School, Liberty Memorial Central Middle School, South Middle School, Southwest Middle School, West Middle School and the College and Career Center; and (2) make technology improvements throughout the district.

This application does not contain any non-instructional-related items.

Based upon the following criteria, staff recommends that this application for capital improvement (bond & interest) state aid be approved.

1. The vote to submit the application for state aid by the local board of education was unanimous.
2. The district is experiencing a growth in enrollment.
3. The community was involved in the process of the building proposal.
4. All required forms were properly filed with us, along with an appropriate notice for the election.
5. The district outlined the needs for the building project by responding to all questions required by the State Board of Education.
6. An outside consultant was utilized in determining the school district needs.
7. The age of the existing building(s) appears to justify a bond election.
8. The application indicates that the building(s) are in need of major repairs in order to provide the necessary student programs.
Summary of Appeal to State Board of Education for State Aid

<table>
<thead>
<tr>
<th>Unified School District 497-Lawrence</th>
<th>County: Douglas</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Current equalized assessed tangible valuation *</td>
<td>$1,173,511,617</td>
</tr>
<tr>
<td>2. Percentage of bond debt limit</td>
<td>14.00%</td>
</tr>
<tr>
<td>3. Amount of bond debt limit</td>
<td>$164,291,626</td>
</tr>
<tr>
<td>4. State Aid Percentage</td>
<td>0%</td>
</tr>
<tr>
<td>* Includes assessed valuation of motor vehicle</td>
<td></td>
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</tbody>
</table>

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<thead>
<tr>
<th>Percent of Equalized Assessed Valuation - Current Year</th>
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<tr>
<td>7. Total amount of bond indebtedness if request approved (Lines 5 + 6)</td>
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<tr>
<td>8. Estimated amount of bond indebtedness authorized without approval</td>
</tr>
<tr>
<td>9. Amount of bond indebtedness above bond debt limit requested</td>
</tr>
</tbody>
</table>

**Forms Requested**

- (X) 5-210-118 General Information
- (X) 5-210-106 Resolution
- ( ) 5-210-108 Publication Notice
- (X) 5-210-110 Application
- (X) 5-210-114 Equalized Assessed Valuation
- (X) Schematic floor plan of the proposed facilities
- (X) Map of the school district showing present facilities
- (X) Small map of the school district showing the adjoining school districts
- (X) Map of the school district showing proposed facilities

February 13, 2017  
Craig Neuenswander  
Director, School Finance

February 13, 2017  
Dale M. Dennis  
Deputy Commissioner
REQUEST AND RECOMMENDATION FOR BOARD ACTION

Agenda Number: 17 g.

Staff Initiating: Christa Chesmore
Director: Scott Myers
Commissioner: Randy Watson
Meeting Date: 3/14/2017

Item Title:
Act on recommendations of the Licensure Review Committee

Board Goals:
Provide an effective educator in every classroom

Recommended Motion:
It is moved that the Kansas State Board of Education accept the recommendations of the Licensure Review Committee as presented.

Explanation of Situation Requiring Action:
Recommendations of the Licensure Review Committee need approval of the State Board of Education. Certificates/licenses will be issued to those applicants whose appeals are granted.
Case 3109
Linda Bell requested the addition of an endorsement for 6-12 high-incidence special education to a valid Kansas license. Amy DeLaRosa made a motion to recommend approval of an extension for a full additional two years of the provisional license expiring 4/18/19 to complete the 6-12 high-incidence program through Washburn University. The motion was seconded by Heidi Bolt and the Licensure Review Committee approved the motion unanimously.

Case 3119
Brandy Thornton requested initial Kansas licensure for middle level 5-8 science. Dale Jean Probst made a motion to recommend approval of an initial Kansas license for middle level 5-8 science based on achievement of certification in Missouri through an alternative route and clarification of educational background and teaching experience. The motion was seconded by Jan Wilson and the Licensure Review Committee approved the motion unanimously.

Case 3120
Carey Walker Jr. requested initial Kansas licensure for middle level 5-8 English, middle level 5-8 social studies, and the LRC to waive the recency requirement. Dale Jean Probst made a motion to recommend approval of an initial Kansas license for middle level 5-8 English and waiving of the recency requirement based on achievement of certification in Texas through an alternative route and clarification of educational background and teaching experience. The appeal for middle level social studies has been dropped. The motion was seconded by Bruce Major and the Licensure Review Committee approved the motion unanimously.

Case 3129
Shanie Perez-Paul requested initial Kansas licensure for middle level 5-8 science. Dale Jean Probst made a motion to recommend approval of an initial Kansas license for middle level 5-8 science based on achievement of certification in Arkansas through an alternative route and clarification of educational background and teaching experience. The motion was seconded by Heidi Bolt and the Licensure Review Committee approved the motion unanimously.

Case 3132
Joseph Clay requested initial Kansas licensure for middle level 5-8 mathematics and secondary 6-12 biology. Bruce Major made a motion to recommend approval of an initial Kansas license for middle level 5-8 mathematics based on achievement of certification in Oklahoma through an alternative route, educational background, and teaching experience. The Committee also recommended denial of the addition of an endorsement for secondary 6-12 biology to this license based on lack of knowledge and performance to meet all secondary biology standards. The motion was seconded by Dale Jean Probst and the Licensure Review Committee approved the motion unanimously.

Case 3133
Michelle Reber requested professional level Kansas licensure for K-6 elementary education. Bruce Major made a motion to recommend approval of this license based on completion of an approved teacher education program and 3 years of accredited experience and 7 years of unaccredited experience to count for the 3 years of recent accredited experience or 5 years total accredited experience required by regulation for a professional level license. The motion was seconded by Heidi Bolt and the Licensure Review Committee approved the motion unanimously.
Case 3134
Carli Stiller requested Kansas licensure for secondary 6-12 social studies and the LRC to waive the recency requirement. Heidi Bolt made a motion to recommend approval of a professional level Kansas license for secondary 6-12 social studies and the waiving of the recency requirement based on achievement of certification in Texas through an alternative route, educational background, and teaching experience. The motion was seconded by Heidi Bolt and the Licensure Review Committee approved the motion unanimously.

Case 3135
Pamela Donald requested Kansas licensure for PreK-12 library media specialist and the LRC to waive the requirements of a 3.25 GPA and the holding of a professional teaching license. Gwen McDonald made a motion to recommend approval of this license and to waive the 3.25 GPA requirement and the holding of a currently valid professional level-teaching license; based on completion of an approved library media specialist program and 10 years of accredited library media specialist experience. The motion was seconded by Heidi Bolt and the Licensure Review Committee approved the motion unanimously.

Case 3137
Mary Schrag requested the addition of an endorsement for PreK-12 high-incidence special education to a valid Kansas license. Dale Jean Probst made a motion to recommend approval of this endorsement based on achievement of certification in Oregon through completion of special education coursework, educational background, and teaching experience. The motion was seconded by Bruce Major and the Licensure Review Committee approved the motion unanimously.

Case 3138
Bruce Humphrey requested Kansas licensure for PreK-12 building leadership. Bruce Major made a motion to recommend approval of this license based on educational background and 10 years of accredited building leadership experience to count for holding a currently valid out of state license for building leadership. The motion was seconded by Heidi Bolt and the Licensure Review Committee approved the motion unanimously.

Case 3139
Avery Miller requested initial Kansas licensure for middle level 5-8 English. Dale Jean Probst made a motion to recommend approval of this license based on achievement of certification in Texas through an alternative route, educational background, and teaching experience. The motion was seconded by Bruce Major and the Licensure Review Committee approved the motion unanimously.
To: Kansas State Board of Education  
Subject: Monthly Board Reports & Requests for Future Agenda Items  

These updates will include:

1. Committee Reports  
2. Board Attorney’s Report  
3. Individual Board Member Reports and Requests for Future Agenda Items  
4. Chairman’s Report
To: Commissioner Randy Watson
From: Dale Dennis
Subject: Legislative Matters
Board Goals: Governmental Responsibility

REVIEW EDUCATION LEGISLATION AND BUDGET RECOMMENDATIONS

A report on the status of education legislation, including budget recommendations, will be reviewed with the State Board of Education.
Agenda Number: 20  
Meeting Date: 3/14/2017

To:        Board Members
From:      Peggy Hill
Subject:   Board Member Travel

Travel requests submitted prior to the meeting, and any announced changes, will be considered for approval by the Board.

Upcoming deadlines for reporting salary/payroll information to the Board office are:

<table>
<thead>
<tr>
<th>Pay Period Begins</th>
<th>Pay Period Ends</th>
<th>Deadline to Report</th>
<th>Pay Date</th>
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<tbody>
<tr>
<td>3/26/2017</td>
<td>4/08/2017</td>
<td>4/06/2017</td>
<td>04/21/2017</td>
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# WEDNESDAY, MARCH 15, 2017
## MEETING AGENDA

<table>
<thead>
<tr>
<th>Time</th>
<th>Agenda Item</th>
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<tbody>
<tr>
<td>9:00 a.m.</td>
<td>1. Call to Order</td>
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<td>2. Roll Call</td>
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<td>3. Approval of Agenda</td>
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<tr>
<td>9:05 a.m.</td>
<td>4. Discuss vision outcome Kindergarten Readiness and receive recommend-</td>
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<td>ed action for Universal Kindergarten Snapshot</td>
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<tr>
<td>11:05 a.m.</td>
<td>Break</td>
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<tr>
<td>11:20 a.m.</td>
<td>5. Board discussion led by Chairman Jim Porter and Vice Chair Kathy Busch</td>
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<tr>
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<td>(working lunch)</td>
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<td>2:00 p.m.</td>
<td>ADJOURN</td>
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_**Next Meeting:** April 18 in Topeka; April 19 in Olathe/Kansas City (third week of month)_
To: Commissioner Randy Watson  
From: Colleen Riley  
Subject: Receive recommendation from Kindergarten Readiness Workgroup for Universal Kindergarten Snapshot  
Board Goals: Provide a flexible and efficient delivery system to meet our students’ varied and changing needs

The Kansas State Department of Education; Early Childhood, Special Education, and Title Services team will provide an update on the Early Learning efforts this past year. This update will include a description of the Kansas Kindergarten Readiness Pilot, survey data and Kindergarten Readiness workgroup recommendations. The State Board will hear from KSDE staff and pilot participants from USD 419 Canton-Galva and USD 313 Buhler.
Agenda Number:  5  
Meeting Date:  3/15/2017

Subject:  Board Discussion and Work Session

State Board Chairman Jim Porter and Vice Chair Kathy Busch will lead Board members in a general discussion of topics related to the Board’s work. This will continue through the lunch hour.