We will begin in 60 seconds
The Science of Reading

Phonemic Awareness, Phonics, and the State Standards
Introductions
- Who is here today?
- A little bit about me

Objectives
- Learners will relate areas of the brain to appropriate processes of reading.
- Learners will identify the processes and applications involved in teaching phonemic awareness and phonics.
- Learners will correlate the attributes of instructional strategies with strong phonics instruction programs.
- Learners will construct connections from state standards to current classroom practices.

Kansas leads the world in the success of each student.
The Science
How the brain learns to read
The Brain

The cortical surface (cortex) is ‘divided’ into the left and right hemisphere.

**Left Hemisphere**
- Explicit Processing
- Factual
- Sequential
- Repetitive
- Logical
- Detail
- Literal

**Right Hemisphere**
- Implicit Processing
- Inferential
- Big Picture
- General
- Figurative
- Irregular
- Conceptual
The Learning Brain

- The adult human brain weighs about 3 pounds, which is about the size of a cantaloupe.
- The brain is soft and covered by bundles of nerve fibers known as the corpus callosum (250 million nerve fibers).
- Scientists have divided the brain into four areas called lobes. They are occipital, frontal, parietal, and temporal.
- The middle brain, the hippocampus, thalamus, hypothalamus, and amygdala is called the limbic system and is responsible for emotions, sleep, attention, body regulation, hormones, sexuality, and brain chemicals.
- The sensory cortex and motor cortex are in narrow bands across the top middle of the brain and the cerebellum is responsible for balance, posture, motor movement and some areas of cognition.

Jensen, Eric, Teaching with the Brain in Mind, 1998
The Learning Brain

- The brain cannot produce its own energy. It is about 2% of an adult’s body weight, but consumes 20% of the body’s energy.
- The brain gets its energy from blood supply (198 gallons per day).
- It needs 64 to 96 ounces of water each day for optimal functioning. In classrooms today dehydration leads to lethargy and impaired learning (Hannaford, 1995).
- The brain uses one fifth of the body’s oxygen. Higher levels of attention and mental functioning are linked to increased air intake (Jensen, 1998).
Where learning begins

- The brain is made of two types of cells: neurons and glia.
- 90% of brain cells are glia and the remaining 10% are neurons.
- Neurons are what make the brain a thinking and learning organ.
- Humans lose brain cells daily to attrition, decay, and disease – anywhere from 10,000 – 100,000 per day (Howard, 1994).
- Learning is a critical function of neurons.
- Learning changes the brain – it causes it to ‘rewire’ itself with each new stimulation, experience, and behavior.

Jensen, Eric, Teaching with the Brain in Mind, 1998
Oral language and literacy

- Humans are hard-wired to learn language.
- Our brain has a phonemic analysis center – we naturally learn to understand language.
- Some linguists say that humans have been speaking and listening to language for around 100,000 years.
- Humans have been reading and writing anywhere from 3,000 – 6,000 years.
- Reading is not natural for human brains.
- Learning to read causes the brain to become re-wired. (Kaufman, 2011)
Pair Squared

Since humans are hard-wired for language and not for reading, why do you think learning to read is not a natural process? Discuss this with someone in the room wearing the same color shirt as you.

How is learning to read different from learning to talk? Take your group of two and find another group of two that are wearing the same color to discuss this question.
Left Hemisphere

- Lobes in the posterior cortex are wired for input.
- Referred to as the reception lobes of the brain.
- They are also the short-term and long-term information storage centers of the brain.
- Passive processing center of the brain.
The Parietal Lobe

- Processes the perception of movement and orientation.
- Processes spatial information.
- Receives and processes sensory information.
- Responsible for cognition.
- Information processing.
The Occipital Lobe

- Processes visual information.
- Identifying visual stimuli – faces and objects.
- Transmitting visual information to other regions of the brain.
- Receiving raw visual data from the eyes.
- Responsible for reading letters and words.
The Temporal Lobe

- Processes auditory information.
- Production of speech.
- Recognition of language.
- Important structures of the temporal lobe include:
  - Wernicke’s area – This region of the brain is associated with the understanding and processing of speech.
  - Broca’s area – This region of the brain aids in the production of speech.
The Frontal Lobe

- This lobe of the brain is programmed for output.
- This works as a ‘conductor’ and if this area of the brain is strong, then an individual will typically have skills with focus, organization, working memory, and self-monitoring.
- Formation of memories and meta-cognition.
Lobe Function and Literacy Acquisition Skills

“At the back of the brain, where the occipital lobe meets the temporal lobe (visual meets auditory), is the occipital-temporal convergence. This is also referred to as the brain’s letter box. This is where whole word forms are stored. It is an whole word storage area.” (Kaufman, 2011)

- If the frontal lobe is not working well the acquisition of literacy skills is impacted when trying to read fluently and construct comprehension from text.
- If the brain’s letter box is not working well, the acquisition of literacy skills is impacted when remembering what letters and words look like.
Literacy Acquisition

At age 5 dendritic growth increases in Broca’s Area, which may be the final year of massive growth (Kagan & Herschkowitz, 2005). This is the age where the brain begins to rely on verbal and visual memory for reading comprehension.

The frontal lobe doesn’t fully develop until the mid-twenties – massive connections are being made in these early reading development years.

In the parietal and temporal lobes reading and vocabulary are developing rapidly and connections between these lobes is vital.

Marilee Sprenger *Wiring the Brain for Reading* (2013)
Decoding letters into sounds involves the temporal lobe. Letters and sounds first meet in this area of the brain.

As a child begins to decode letters – Wernicke's Area (which is auditory) receives the letter shapes and the speech sounds and creates a relationship between them.

With practice the letter-sound translation becomes automatic. Automaticity is what allows a reader to read and comprehend.

Marilee Sprenger *Wiring the Brain for Reading* (2013)
Brain lobes network together

Just hearing the word **school**, activates a few of the regions of the brain below.

- **Auditory networks** – your brain will perceive the sound waves and information about pitch, rhythm, and tempo of the word.
- **Visual networks** – your brain will associate images for the word school.
- **Phonologic networks** – your brain will aid in language comprehension.
- **Memory networks** – your brain will activate prior knowledge in the meaning of the word school with past experiences.
- **Emotion networks** – your brain will associate appraisal (enjoyment/dislike) of school and activate physiology (heart rate, blood pressure, etc.) and cognitive processes (goals, attention).

Posey, Allison, *Engage the Brain*, 2019
Lobe Function and Literacy Acquisition Skills

In order for reading to take place, all areas of the brain must work together to process information. When one portion of the brain does not function properly, the impact on reading is significant.

- **Temporal lobe** – phonological awareness, decoding words, discriminating speech sounds
- **Frontal lobe** – speech production, reading fluency, grammatical usage, comprehension of grammar
- **Parietal lobe** – holds the angular gyrus, which is the hub of reading - converts visual input to audio output

If the angular gyrus is not well developed a reader may not be able to link the letters or sounds in a word like /b/ /a/ /t/ to bat, although they have heard and/or used this word many times.
Activity

Four Volunteers

- One to hold the Frontal Lobe Sign
- One to hold the Temporal Lobe Sign
- One to hold the Occipital Lobe Sign
- One to hold the Parietal Lobe Sign
Break

Time for a BREAK
Auditory Language Skills
Phonological Awareness and Phonemic Awareness
Sounds of language

- Discuss with a partner the differences in these two terms:

  Phonological Awareness

  Phonemic Awareness
Sounds of language

- Phonological Awareness
  - Auditory only – no print involved
  - Broad and overriding term
  - Identifying units of spoken language
  - Manipulating units of spoken language
  - Onset / rime
  - Syllables
  - Initial and Ending Sounds
  - Rhyming

- Phonemic Awareness
  - Auditory only – no print involved
  - One piece of phonological awareness
  - Identifying individual sounds of language
  - Manipulating individual sounds of language
  - Blending phonemes
  - Phoneme segmentation – Segmenting a spoken word into individual sounds
  - Phoneme manipulation – Making new words from a spoken word

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Sounds of language – Phonemic Awareness

- The ability to hear and manipulate the sounds of spoken language (Yopp, 1992). There is no print in phonemic awareness (PA). All instruction is oral.
- Essential to learning to read in English, because letters represent sounds or phonemes. Without PA, phonics will not make sense.
- Fundamental to mapping speech to print.
- PA skills in kindergarten are one of the best predictors of reading achievement between kindergarten and second grade. (Snow et.al., 1998, NELP, 2009)
- PA instruction should be explicit, include scaffolding, and include many opportunities to practice.
- According to research, the one phonemic awareness task that is most predictive of early reading is phoneme segmentation (Durst & Joseph, 2016).
Modified Scarborough’s Rope

Core Reading Systems
- Phonemic Awareness
- How Reading Works
- Word Identification
  - Sight Words
  - Phonics
- Vocabulary
- Comprehension
- Fluency

Mental Systems
- Attention
- Perception
- Memory
  - General Knowledge
  - Domain Knowledge
  - Word Meaning
- Language
  - Syntax
  - Semantics
- Thinking and Reasoning
  - Comprehension
  - Inferencing
  - Interpretation
  - Understanding

Internalization of a New-language for and about Reading and Thinking

Proficient Reading:
Skill in coordinating core reading systems to accomplish reading tasks.

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Sounds of language

- “The level of phonemic awareness that children possess when first beginning reading instruction and their knowledge of letters are the two best predictors of how well they will learn to read during the first two years of formal reading instruction.” (National Reading Panel Report, 2000)

- The first signs of phonological awareness usually appear between the ages of 2 - 3 when children begin to rhyme.

- Children who come from print rich environments have phonological awareness skills in place and are ready to manipulate phonemes and begin phonemic awareness instruction.
Underdeveloped temporal lobe

- The absence of strong oral language, reading, and word play in early childhood can lead to reading difficulties and a failure to progress in reading development (Hammill & McNutt, 1980, Scarborough, 1998).

- Cognitive studies have identified phonological processing is crucial to successful reading, therefore it would seem that poor readers would have phonological processing problems.

- Weakness in phonemic awareness characterize children with reading problems across a span of general verbal ability. Their primary problem in learning to read involves learning to translate between printed and oral language. (Torgesen, 2002)
Underdeveloped temporal lobe

- If a child is lacking phonemic awareness skills then he or she cannot:
  - Group words with the same sound (or different sounds)
    - For example: Tell me which word does not start with the same sound? mat, mug, sun – sun does not start with /m/
  - Isolate onsets or rimes
    - For example: Tell me what is the ending sound in bat? “at”
  - Segment a word into phonemes
    - For example: Tell me how many sounds you hear in fish. Three /f/ /i/ /sh/
  - Manipulate sounds within words
    - For example: Change the /s/ in sun to /r/. What is the new word? run
What Can Teachers Do?

- The brain is malleable and plastic – therefore it can be rewired to activate the other lobes to ‘aid’ the underdeveloped temporal lobe. (Fletcher, 2018)

- Learning new material for some children’s brains is like driving a four wheeler through the forest – there is no path and it takes a lot of concentration.

- It is vital to teach these children so that new learning connections can take place and that a new path in the forest can be made for learning. To do this the brain needs:
What can teachers do?

- To have prior knowledge activated with familiar connections. This allows students to build on previous knowledge and skills and for the brain to make the path for learning.

- Offer options that review basic background information, highlight key patterns, and feature important terminology. This allows the brain to remember the path the next time learning is activated.

- Allow opportunity for practice at different levels. This makes the path a solid foundation.

- Offer flexible options for when and how learners can take brain breaks. Not all children need to do 20 jumping jacks to rest their brains, but all children do need to take a break because learning new material requires a lot of energy!
### What skills are part of phonemic awareness?

<table>
<thead>
<tr>
<th>Skill</th>
<th>Mastery</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Word level</td>
<td>• Preschool</td>
</tr>
<tr>
<td>• Rhyme recognition and production</td>
<td>• Preschool</td>
</tr>
<tr>
<td>• Syllable blending</td>
<td>• Kindergarten</td>
</tr>
<tr>
<td>• Syllable segmentation</td>
<td>• Preschool</td>
</tr>
<tr>
<td>• Syllable deletion</td>
<td>• Preschool/Kindergarten</td>
</tr>
<tr>
<td></td>
<td>• Kindergarten</td>
</tr>
</tbody>
</table>
What skills are part of phonemic awareness?

Skill
- Phoneme Isolation
- Phoneme Blending
- Phoneme Segmentation
- Phoneme Deletion
- Phoneme Substitution

Mastery
- Kindergarten
- 1st Grade
- 1st Grade
- 1st Grade / 2nd Grade
- 2nd Grade
Resources Phonemic Awareness

- Florida Center on Reading Research
- Reading Resource
- Rhyming Games and Activities
- Interventions for All – Phonological Awareness – Yvette Zgonc (print book)
Review

- **Think-Write Round Robin**
  - At your table groups think about the following question, write your response on your note taking guide in the round robin section of the graphic organizer, then share response with your elbow partner.
  - Question: What was the most important piece of information you learned about phonemic awareness instruction and the brain?
Phonics
Putting sound to print
Phonics

“Learning to read in an alphabetic writing system such as English requires the acquisition of the alphabetic principle – the insight that the visual symbols of the writing system (graphemes) represent the sounds of the language (phonemes).” (Castles, et. al, 2018)

“Practice with production helps in the learning of language whether it is spoken or written.” (Hopman & MacDonald, 2018)

“Systematic phonics instruction provides beginning readers, at-risk readers, disabled readers, and low-achieving readers with a substantial edge in learning to read over alternative forms of instruction not focusing at all or only incidentally on the alphabetic system.” (National Reading Panel, 2000)
Phonics

Phonics is teaching letter sound relationships, including sounds for common letter patterns, so that a reader can decode words.

Phonics is teaching of the alphabetic principle, which is the relationship between phonemes and graphemes.

Research states that explicit phonics instruction improves a child’s reading comprehension.

Phonics teaches blending in a gradual release model, using decodable text.
Phonics

Common Misunderstandings About Phonics Instruction

1. Only students with reading difficulties need phonics instruction.
   - All beginning readers in kindergarten through third grade benefit from phonics instruction. Readers in older grades not making adequate progress also benefit from phonics instruction at their ZPD.

2. By giving students many opportunities to read they will learn to read without direct phonics instruction.
   - For some children this is correct. However, research shows over and over again that phonics instruction is a proven and effective approach to teaching reading.
Phonics
Common Misunderstandings About Phonics Instruction

3. Decoding skills can be taught in isolation when students make mistakes in reading.
   - Beginning readers and those with reading difficulties are likely to make mistakes many times. This presents too many mini lessons during reading. To support students making progress, it is better to teach decoding whole group in a purposeful way which is sequential.

4. There are too many exceptions in phonics to make teaching it worthwhile.
   - While only about half of the words in English are decodable, there are about 37% more that are mostly decodable with the exception of one sound (Reed, 2016). Decoding alone does not equate to reading print but lack of decoding will prevent beginning readers and struggling readers from experiencing success.
Phonics

- In the English language there are 44 speech sounds (phonemes) and more than 100 spellings used to represent them (Blevins, 1998, Bos & Vaughn, 2002).
- Effective phonics instruction follows a defined sequence and includes direct teaching of the letter-sound relationships.
- Phonics instruction should provide key knowledge and skill needed for the beginning and struggling reader. **Phonics should not be the entire reading program, but should be integrated into your daily literacy block.**
- Early instruction in phonics leads to better reading achievement (Adams, 2001).
Phonics
Components of Phonics and Word Study Programs

1. Print Awareness
   - Knowing that speech can be written and is related to oral language. Print is written from left to right. Written language and spoken language structures are different.

2. Alphabetic Knowledge
   - Recognizing the shapes, names, and sounds of letters. Also knowing the progression from letter names to shapes and sounds.

3. The Alphabetic Principle
   - The systematic relationship between letters and sounds (blending).

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Phonics
Components of Phonics and Word Study Programs

4. Decoding Practice and Reading Decodable Text
   - This is where reading begins! Teaching words with inflectional endings, prefixes, suffixes, etc. Also work on decoding in isolation as well as in text using onset and rime knowledge. Discussion of text begins to grow comprehension.

5. Letter – Sound Knowledge or Blending
   - Teaching and introducing letter/sounds initially in order (on the following slides) is a common sense approach and will help new readers be able to blend text faster.

6. Word Reading Practice
   - Word work – syllables – practice. Students need multiple exposures to words and the ability to work with words in a variety of ways.
Phonics Instruction

Three types of phonics instruction

- Synthetic phonics
  - Part to whole approach that teaches letter-sound (grapheme-phoneme) relationships in a clear sequence. Example: Students are taught that letters and sounds in /c/ /l/ /a/ /p/ can be blended into the word clap that can be read, written, and produced orally.

- Analytic phonics
  - Starts at the word level and teaches students to analyze letter-sound relationships once the word is identified. Example: The teacher could write the letter b on the board and then write several words like but, back, bit, bus, bit and help students read each word noting that each word begins with the /b/ sound.

- Analogy phonics
  - Uses parts of written words that students already know to identify new words. Example: The word ‘bend’ has the onset ‘b’ and the rime ‘end’. The teacher then helps students to make new words with the ending rime of ‘end’ like send, mend, tend
Phonics

Stages of Learning to Read (Vaughn, Stevens, 2017)

- Alphabet
  - Letters, sounds, left to right sequence

- Pattern
  - Syllable patterns, pronunciations of those pattern rules (open, closed, etc.)

- Meaning
  - Structural units or groups of letters, prefix, suffix, inflectional endings

- Decoding
  - Converting print to spoken word by using the letter-sound correspondence and spelling patterns.
# Phonics

<table>
<thead>
<tr>
<th>Letter Sound Knowledge</th>
<th>Sight Word Knowledge</th>
<th>Syllable Types</th>
<th>Morphology</th>
<th>Other Decoding Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short vowels</td>
<td>High Frequency Words</td>
<td>CLOSED (VC, CVC, CCVC, CVCC, or CCVCC)</td>
<td>Base words</td>
<td>Compound words</td>
</tr>
<tr>
<td>Consonants with single sounds</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consonant blends and digraphs</td>
<td>Lower Frequency Words</td>
<td>Open (CV or CCV)</td>
<td>High Frequency Prefixes</td>
<td>Contractions</td>
</tr>
<tr>
<td>Consonants with two sounds</td>
<td></td>
<td>Silent-e (VC-e or CVC-e)</td>
<td>Inflectional Endings</td>
<td>Possessives</td>
</tr>
<tr>
<td>Vowel Digraphs</td>
<td>Vowel Teams (CVVC, CCVVC, CVVCC)</td>
<td>Root Words</td>
<td></td>
<td>Silent Consonants</td>
</tr>
<tr>
<td>R-controlled Vowels and Diphthongs</td>
<td>R-controlled (CV-r, CV-rC, or CC-rC)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Consonant Le (C+le)</td>
<td></td>
<td></td>
<td>Low Frequency Prefixes</td>
</tr>
</tbody>
</table>

Skill Progression: Easier to More Difficult
### Phonics The most frequent spellings of the 44 phonemes in English

<table>
<thead>
<tr>
<th>Phoneme</th>
<th>Most Frequent Spellings</th>
</tr>
</thead>
<tbody>
<tr>
<td>/b/</td>
<td>b 97%, bb</td>
</tr>
<tr>
<td>/d/</td>
<td>d 98%, dd, ed</td>
</tr>
<tr>
<td>/f/</td>
<td>f 78%, ff, ph, lf</td>
</tr>
<tr>
<td>/g/</td>
<td>g 88%, gg, gh</td>
</tr>
<tr>
<td>/h/</td>
<td>h 98%, wh</td>
</tr>
<tr>
<td>/j/</td>
<td>g 66%, j 22%, dg</td>
</tr>
<tr>
<td>/k/</td>
<td>c 73%, cc, k (13%), lk, q</td>
</tr>
<tr>
<td>/l/</td>
<td>l 91%, ll</td>
</tr>
</tbody>
</table>

Hanna, Hodges, Hanna, and Rudolph (1966)
## Phonics
The most frequent spellings of the 44 phonemes in English

<table>
<thead>
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<th>Phoneme</th>
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<tbody>
<tr>
<td>/m/</td>
<td>m 94%, mm</td>
</tr>
<tr>
<td>/n/</td>
<td>n 97%, nn, kn, gn</td>
</tr>
<tr>
<td>/p/</td>
<td>p 96%, pp</td>
</tr>
<tr>
<td>/r/</td>
<td>r 97%, rr, wr</td>
</tr>
<tr>
<td>/s/</td>
<td>s 73%, c 17%, ss</td>
</tr>
<tr>
<td>/t/</td>
<td>t 97%, tt, ed</td>
</tr>
<tr>
<td>/v/</td>
<td>v 99.5%, f (as in the word ‘of’)</td>
</tr>
<tr>
<td>/w/</td>
<td>w 92%</td>
</tr>
</tbody>
</table>

Hanna, Hodges, Hanna, and Rudolph (1966)
Phonics
Blending board example (Blevins) ~ (short u example)

Line 1  up  cup  pup
Line 2  cup  cut  cub
Line 3  cap  cup  pop
Line 4  bus  dug  fun
Line 5  map  led  hip
Line 6  fell  tap  fog
Line 7  truck  stuck  struck
Line 8  The big red bug hid.
Line 9  The big red bug hid under the rug.

vary by beginning sound
vary by ending sound
vary by medial sound
varied beginning and ending sound
mixed review set
mixed review set
challenge set
blending line
challenge blending line
<table>
<thead>
<tr>
<th>Skill Category</th>
<th>Skill Sequence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short Vowels and High Utility Consonants</td>
<td>m, a, s, p, t, i, n, b, c</td>
</tr>
</tbody>
</table>
## Phonics Scope & Sequence

<table>
<thead>
<tr>
<th>Skill Category</th>
<th>Skill Sequence</th>
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</thead>
<tbody>
<tr>
<td>Short Vowels and Mid-Utility Consonants</td>
<td>o f h d r q e l k</td>
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<tbody>
<tr>
<td>Short Vowels and Low-Utility Consonants</td>
<td>u, w, j, x, v, qu, y, z</td>
</tr>
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</table>
## Phonics for Guided Reading

<table>
<thead>
<tr>
<th>Guided Reading Level</th>
<th>Recommended Phonics Skill</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Alphabet (letter sounds)</td>
<td>Children Read Pattern Books</td>
</tr>
<tr>
<td>B</td>
<td>Alphabet (letter sounds)</td>
<td>Children Read Pattern Books</td>
</tr>
<tr>
<td>C</td>
<td>Alphabet (letter sounds)</td>
<td>Children Read Pattern Books</td>
</tr>
<tr>
<td>D</td>
<td>Short vowels a, i</td>
<td>Books with decodable words/inflectional endings, consonant blends &amp; plurals</td>
</tr>
<tr>
<td>E</td>
<td>Short vowels o, u, e</td>
<td>Consonant digraphs</td>
</tr>
<tr>
<td>F</td>
<td>Final e</td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>Long Vowels a, e</td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>Long Vowels o, i, u</td>
<td>Multisyllabic words</td>
</tr>
<tr>
<td>I</td>
<td>R-controlled vowels</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Diphthongs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Variant Vowels oo, au, aw</td>
<td></td>
</tr>
<tr>
<td>Guided Reading Level</td>
<td>Recommended Phonics Skill</td>
<td>Notes</td>
</tr>
<tr>
<td>----------------------</td>
<td>-------------------------------------------</td>
<td>--------------------------------------------------------------</td>
</tr>
<tr>
<td>J</td>
<td>Two and Three Syllable Words</td>
<td>Review one syllable words, final e, blends, digraphs</td>
</tr>
<tr>
<td>K</td>
<td>Two and Three Syllable Words</td>
<td>Review one syllable words, inflectional endings, plurals</td>
</tr>
<tr>
<td>L</td>
<td>Two and Three Syllable Words</td>
<td>Review one syllable words. Introduce silent letters and soft c &amp; g</td>
</tr>
<tr>
<td>M</td>
<td>Two and Three Syllable Words</td>
<td>Review one syllable words, variant vowels, diphthongs</td>
</tr>
<tr>
<td>N</td>
<td>Syllabication</td>
<td>Open syllables, closes syllables, consonant le syllables &amp; prefixes</td>
</tr>
<tr>
<td>O</td>
<td>Syllabication</td>
<td>Vowel team syllables, final-e syllables, r-controlled vowel syllables &amp; suffixes</td>
</tr>
<tr>
<td>P</td>
<td>Syllabication</td>
<td>Inflectional endings, Prefixes, Suffixes, Homophones</td>
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</tbody>
</table>
Review

Jigsaw Activity

- Silently read your assigned portion of the phonics article at your table.
- Take notes on your Graphic Organizer section titled Jigsaw.
- When time is up be for a group of four and share your portion of the article with your group.
Break

Time for a BREAK
Instructional Strategies
Core reading strategies for all students
#KansansCan
Instructional Strategies

Assessment for/of learning
Assess students’ phonics skills to determine their skill level.

Planning
Plan a lesson based on assessment and clearly focus planning on what needs to be taught and how it is to be taught.

Instruction
Use a gradual release model to explicitly teach and support students to achieve phonics lesson goals and engage students in reflection on learning.

Adapted from New South Wales Department of Education and Training
Instructional Strategies

- Direct or explicit instruction in phonemic awareness and phonics is cited in research as effective avenues to teach reading in kindergarten through third grade.

- Direct instruction has six major components (Fisher, Frey, Hattie 2017)
  - Relevance
  - Modeling
  - Checking for understanding
  - Guided Instruction
  - Independent Practice
  - Closure
Instructional Strategies

Relevance
- Relevance facilitates intrinsic motivation and will motivate persistence when learning new skills like reading when confronting challenges. (Meece, Anderman & Anderman, 2006)

Modeling
- Modeling should include the think-aloud process.
- Teacher modeling triggers similar responses in students. Students can be taught to think about their own cognitive decision making, problem solving, understanding, and processing.
- When modeling to students consider which features you want to offer students: giving the name of the skill in academic terms, state the purpose of the skill, explaining how the task is going to be used, linking to prior knowledge, demonstrating how the skill is to be completed, alert learners to errors to be avoided, and/or assess the use of the new skill.
Instructional Strategies

Check for Understanding/Guided Instruction

- Teacher feedback to students should be immediate at this stage of the instructional process. Feedback does not mean telling a student if they are right or wrong but rather guiding them.

- Teachers can structure feedback in the form of questions rather than right or wrong, yes or no for students. For example, Can you tell me why you chose to do it this way? Why do you think long a make this sound?

Independent Practice

- The learning continues at this stage, when students employ what they have been learning (Fisher & Frey, 2008).

- Spiral review is where students revisit learning previously mastered to keep the brain activated to keep lobes firing.
Instructional Strategies

Closure

- Most often skipped or omitted in lessons due to time, but the most important.
- Closure is the global checking for understanding and the connection to learning.
- Closure can include a review of key points.
- Teachers can invite students to rate level of understanding, or draw conclusions from learning.
Kansas leads the world in the success of each student.

Instructional Strategies

Phonemic Awareness  Phonics  Vocabulary  Fluency  Comprehension

#KansansCan
Instructional Strategies Model
Instructional Strategies

- The brain needs blood and oxygen to perform at optimum levels.
  - Act out stories
  - Visualization techniques
  - Sight words, vocabulary words, word work movement, cheers, song, dance
  - Pictures and images help the occipital lobe manage spatial orientation.
  - Recess and PE – DAILY and no sitting out as a classroom consequence.
  - Cross lateral activities to force both brain hemispheres to ‘talk’ to each other.
  - Listening accuracy and auditory sequencing skills need to be improved.
Instructional Strategies

- The brain needs routine and structure to rewire.
  - Lesson outlines should include
    - Quick-paced reviews of sound-symbol relationships and introduction of new information
    - Word work practice of phonemic segmentation and blending (systematically and explicitly).
    - Fluency building with sight words and phonetically regular words made up of previously taught patterns.
    - Oral reading practice in trade books or decodable texts
    - Writing words with previously taught patterns using dictation.
Instructional Strategies

To rewire the temporal lobe and help children acquire language, teachers and parents can:

- **Ages 2 – 4**
  - Repeat what your child says so she knows you understand her.
  - Read to your child.
  - Name things: body parts, objects in the room, and so on.
  - Pick up familiar items, and ask your child what they are.
  - Sing nursery rhymes and songs.
  - Encourage the child to sing along.
  - Show the child photographs, and ask what is happening in them, or ask the child to tell a story about the picture.
Instructional Strategies

- To rewire the temporal lobe and help children acquire language, teachers and parents can:
  - **Ages 4 – 6**
    - Make sure you have the child's attention before you speak.
    - Find objects to sort.
    - Pause when you are speaking to give the child a chance to speak too.
    - Give simple directions, and see if the child can follow them.
    - Read aloud to the child.
    - Play pretend games such as house.
    - Take the child shopping and discuss what is on your list and the quantity. Have your child count out items for you.
Instructional Strategies

- To rewire the temporal lobe and help children hear the sounds of letters, teachers and parents can record these common sounds and have children close their eyes and name the sound they hear. This will allow the brain to learn to discriminate sounds and then phonemic awareness skills can be strengthened.
  - Sneezing
  - Coughing
  - Drawers Opening
  - Finger Snapping
  - Throat Clearing
  - Hammering
  - Turning on a Computer
Instructional Strategies

- To rewire the temporal lobe and help children hear the sounds of letters, teachers and parents play word play games by changing a key word in a phrase or sentence. For example:
  - Mary, Mary, quite contrary, how does your hair grow?
  - Little Boy Blue, come blow your nose.
  - I do not like blue eggs and ham.
  - Way to stop! Look no ways before crossing.

For older students, lyrics to popular songs, poetry, expressions, and even content can be used:
- Do you ever feel like a house of sticks? (Katy Perry lyrics)
- It is the east, and Juliet is the moon.
- I'm dreaming of a green Christmas.
- In fourteen hundred ninety-two, Magellan sailed the ocean blue.
Instructional Strategies

- To rewire the temporal lobe and help children develop language and understand words at the word level try a word wall activities like the example below.
  - Word Wall In the classroom or at home, put up new words each week on a word wall. The number of words will depend on the grade level you teach.
  - With a younger class, practice saying the words, spelling the words, clapping out syllables, and breaking the words into phonemes.
  - Find two words that rhyme with ______.
  - Which word means ____________?
  - Find words that end with ______.
  - Older students can find rhyming words or use the words in conversation. The important element for struggling readers is that they hear the sounds in the words and say them correctly.
Instructional Strategies

- To rewire the temporal lobe and help children develop language and understand words at the word level try a word wall activities like the example below.
  - Incorporate multi-modality into review by using cheers:
    - Movie Star Kisses (Throw kisses for each letter)
    - Nose Dives (Hold your nose and ‘go under the water’ with each letter)
    - Cheerleader (Give me an “H”)
    - Clap and snap (clap vowels and snap consonants)
    - Seat and stand (sit on the edge of your seat for vowels and stand for consonants)
    - Disco (Emulate John Travolta)
    - Weight Lifter (pretend to lift weights with each letter)
    - Robot (robotic movements for each letter)
    - Rocket Blast Off (start near the floor and then with each letter stand taller)
Instructional Strategies

 To rewire the temporal lobe and help children develop language and understand words at the word level try a word wall activities like the example below.

 Incorporate multi-modality into review by singing these tunes to review: You sing the letters to the words and sing the song as if they were the words to the song. Do the whole song since it reinforces the word more than once. Point to the letters on the word wall or on the smart board as you sing the song.
   3 letter words – This Old Man, Jingle Bells, Three Blind Mice
   4 letter words – Twinkle, Twinkle Little Star, Skip to My Lou, YMCA
   5 letter words – You Are My Sunshine, Row, Row, Row Your Boat, BINGO (“There was a class that learned to spell; And this is what they sang-o”)
   6 letter words – This Old Man, Happy Birthday, The Farmer in the Dell
   7 letter words – She’ll Be Coming Around the Mountain When She Comes, My Bonnie Lies Over the Ocean, Twinkle, Twinkle Little Star
   8 letter words – We Wish You a Merry Christmas, For He’s a Jolly Good Fellow
   9 letter words – I’m a Little Teapot
Instructional Strategies

- To rewire the occipital-temporal convergence and help children obtain phonics and become readers teachers can:
  - Model fluent read aloud every day.
    - Bring children’s attention to words, sounds, fluency, vocabulary, etc.
  - Play homonym games
    - Use multi-meaning words in word play (jam, band, creek, etc)
  - Have students create multisyllabic (at least two syllable) words on a ABC list.
  - Alliteration Games
    - Purple penguins pick pineapples. Happy hamsters eat ham. In this example the teacher would say the two sentences orally and the students would have to determine which sentence was not fully alliterate.

#KansansCan
Review
Think, pair, share
Think of how you can incorporate explicit instruction in phonemic awareness and/or phonics into your daily routine.

Share with a partner:
- Jive, Dive, Thrive
  - What jives with you?
  - What do you need to dive deeper into?
  - What can you take and thrive with?
Teaching Struggling Readers in the general education setting
If you analyze the word dyslexia we find that *dys* is a prefix meaning impaired. *Lexia* is a base word that is derived from the word lexicon and it means word.

Dyslexic students are impaired in word-level skills such as decoding, word reading, and spelling.

Not all reading problems are the result of dyslexia, there are other disorders that cause a child to struggle with learning to read.

However, students that struggle with reading and students with dyslexia can improve their ability to read with explicit instruction in core reading.
Improving Core Reading Instruction for Struggling Readers

Classroom Environment

- Rich in oral language
- Never assume that what was taught was learned
- One exposure to content is often not enough
- Teach children how they learn
- Have consistent classroom routines
Improving Core Reading Instruction for Struggling Readers

Rich in oral language

- Teaching reading includes more than instruction in reading and writing.
- Development of sounds, word parts, syntax are all part of decoding and reading instruction.
- Students need to be able to understand the instructional language of the teacher to answer questions and to learn academic language in order to participate in class discussion.
- Encourage conversation and social interaction by guiding conversation, asking questions, and rephrasing answers.
Improving Core Reading Instruction for Struggling Readers

Never assume that what was taught was learned

- The goal is to bring teaching and learning together – simply covering material is not enough for struggling readers.
- Frequent formative assessment and monitoring of instruction is needed when teaching struggling readers.
- Provide feedback on assessment of reading to students. Feedback should be clear, purposeful, and meaningful. (Hattie, 2007)
- “Remembering letters and words is not the same skill as thinking.” (Berninger & Wolf, 2009) Encourage problem solving and maintain self-esteem when students struggle to read even if they have trouble with spelling, handwriting, and/or word decoding.
Improving Core Reading Instruction for Struggling Readers

One exposure to content is often not enough.

- Students that struggle with reading need frequent exposures and connections to prior learning than other readers.
- Repeated practice over time is often needed to acquire automaticity and confidence to apply learning strategies.
- Teach readers the academic names of metacognition and how to think through strategies when reading and cueing. Teach students how to learn.
- Flexibility is often needed when a child struggles to grasp reading. Sometimes teachers have to let it go and try an new strategy, pivot, change direction and take advantage of teachable moments all while saving the student’s dignity.
Improving Core Reading Instruction for Struggling Readers

Teach children how they learn.

- Students that struggle to read need different avenues of learning.
- Visual learners need demonstrations, often learn by sight, and like color coding.
- Auditory learners learn by listening, like to listen to books, like rhymes and syllables.
- Tactile learners prefer to doodle while listening, like manipulatives, and learn to spell best with shapes.
- Kinesthetic learners like to be active and move when learning, use mnemonics, and are list makers.
Improving Core Reading Instruction for Struggling Readers

Have consistent classroom routines.

- Often students that struggle with learning to read need a positive learning environment where both physical and learning needs are met.
- Classrooms should be well organized, neat, and clutter free when you have students that struggle to read.
- Preferential seating doesn’t always mean front row – the student is often the best judge of what works best for them. Help students understand that they need to sit where they will work best and be most productive.
- Daily schedules should be posted to help students who struggle with reading and anxiety.

#KansansCan
Break

Time for a BREAK
Reading Foundational Skills
State Standards
#KansansCan
# Standards Pre-K

## Print Concepts (CLF-PC)

- **CL.F.mi.1:** Explains books by turning the pages (may be more than one at a time or back to front).
- **CL.F.mi.2:** Plays with objects with letters on them (e.g., alphabet blocks).
- **CL.F.mi.1:** Holds notebook right side up to look at pictures.
- **CL.F.mi.2:** Begins to demonstrate an understanding that print conveys meaning (e.g., pretend to read a favorite book).

## Phonological Awareness (CLF.PA)

- **CL.F.pi.1:** Shows a varied response to sounds in the environment.
- **CL.F.pi.2:** Demonstrates enjoyment when listening to nursery rhymes, finger plays, jingles, songs, and books that are read to them (e.g., smiles, laughs, pat pictures with hand).
- **CL.F.pi.3:** Differentiates between sounds that are the same and different (e.g., bell vs. drum).
- **CL.F.pi.4:** Participates in saying words in nursery rhymes, finger plays, jingles, songs, and books that are read to them.

- **CL.F.pi.5:** Plays with the sounds of language.
- **CL.F.pi.6:** Differentiates between sounds that are the same and different (e.g., environmental sounds, animal sounds, phonemes).
- **CL.F.pi.7:** Identifies two words that start with the same sound (e.g., ball and bat both start with the /b/ sound).

- **CL.F.pi.8:** Plays with sounds of words.
- **CL.F.pi.9:** Identifies words with multiple sounds (e.g., baseball / d-a-b/).
- **CL.F.pi.10:** Identifies words with a single sound (e.g., bat /b/).
- **CL.F.pi.11:** Identifies words with a single sound (e.g., cat starts with /k/).

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# KansansCan
### Standards Pre-K

**Phonics and Word Recognition**

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Young Infant: &quot;I&quot; (By 8 months)</td>
<td>N/A</td>
</tr>
<tr>
<td>Mobile Infant: &quot;mi&quot; (By 18 months)</td>
<td>N/A</td>
</tr>
<tr>
<td>Toddler: &quot;t&quot; (By 36 months)</td>
<td>N/A</td>
</tr>
</tbody>
</table>
| Pre 3: "p3" (By 48 months)       | CL.F.p3.a: Knows and applies age-appropriate word analysis skills.  
|                                 | CL.F.p3.b: Begins to identify own name in print.                         |
|                                 | CL.F.p3.c: Begins to recognize and "read" familiar words or environmental print. |
| Pre 4: "p4" (By 60 months)       | CL.F.p4.a: Demonstrates basic knowledge of letter-sound correspondence by producing the sound of some letters. |
|                                 | CL.F.p4.b: Identifies own name in print.                                   |
|                                 | CL.F.p4.c: Recognizes and "reads" familiar words or environmental print.   |

**Fluency**

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Young Infant: &quot;I&quot; (By 8 months)</td>
<td>N/A</td>
</tr>
<tr>
<td>Mobile Infant: &quot;mi&quot; (By 18 months)</td>
<td>CL.F.mi.5: Begins to vocalize as if reading when looking at a book.</td>
</tr>
<tr>
<td>Toddler: &quot;t&quot; (By 36 months)</td>
<td>CL.F.t.5: &quot;Reading&quot; may capture the tone of voice and stress on words the caregivers have when reading a book.</td>
</tr>
<tr>
<td>Pre 3: &quot;p3&quot; (By 48 months)</td>
<td>CL.F.p3.4: Displays emergent reading behaviors with purpose and understanding using a familiar book (e.g., pretend reading).</td>
</tr>
<tr>
<td>Pre 4: &quot;p4&quot; (By 60 months)</td>
<td></td>
</tr>
</tbody>
</table>
Kansas leads the world in the success of each student.
Pre-K Print Concepts

- What parts of the brain are activated in these standards?
- What activities are done in your classroom that connect the brain to these standards?
- How can you increase brain activities on these standards?

CL.F.p4.1: Demonstrates understanding of the organization and basic features of print.

CL.F.p4.1a: Follows words from left to right, top to bottom and page by page.

CL.F.p4.1b: Recognizes that spoken words are represented in written language by specific sequences of letter.

CL.F.p4.1c: Recognizes that letters are grouped to form words.

CL.F.p4.1d: Recognizes and names some upper: and lowercase letters in addition to those in first name.
Pre-K PA

- What parts of the brain are activated in these standards?
- What activities are done in your classroom that connect the brain to these standards?
- How can you increase brain activities on these standards?

CL.F.p4.2: Demonstrates understanding of spoken words, syllables and sounds (i.e., phonemes):
- CL.F.p4.2a: Recognizes and produces rhyming words.
- CL.F.p4.2b: Blends and segments syllables in spoken words (e.g., /f/+/i/+/sh/= fish; or clapping or snapping out syllables ap-ple= 2 claps).
- CL.F.p4.2c: With prompting and support blends and segments initial sounds (i.e., onset) and ending sounds (i.e., rime) of single syllable words (e.g., /d/+/og/= dog).
- CL.F.p4.2d: States the initial sound (phoneme) in consonant-vowel-consonant (CVC) words (e.g., cat starts with /c/).
Pre-K Phonics

- What parts of the brain are activated in these standards?
- What activities are done in your classroom that connect the brain to these standards?
- How can you increase brain activities on these standards?

CL.F.p4.3: Knows and applies age appropriate word analysis skills in decoding words.
CL.F.p4.3a: Demonstrates basic knowledge of letter-sound correspondence by producing the sound of some letters.
CL.F.p4.3b: Identifies own name in print.
CL.F.p4.3c: Recognizes and “reads” familiar words or environmental print.
Standards K

Print Concepts
- RF.K.1: Demonstrate understanding of the organization and basic features of print.
  - RF.K.1.a: Follow words from left to right, top to bottom, and page by page.
  - RF.K.1.b: Recognize that spoken words are represented in written language by specific sequences of letters.
  - RF.K.1.c: Understand that words are separated by spaces in print and can point with one-to-one correspondence.
  - RF.K.1.d: Recognize and name all upper- and lowercase letters of the alphabet.

Phonological Awareness
- RF.K.2: Demonstrate understanding of spoken words, syllables, and sounds (phonemes).
  - RF.K.2.a: Recognize and produce rhyming words.
  - RF.K.2.b: Count, pronounce, blend, and segment syllables in spoken words.
  - RF.K.2.c: Blend and segment onsets and rimes of single-syllable spoken words.
  - RF.K.2.d: Isolate and pronounce the initial, medial vowel, and final sounds (phonemes) in three-phoneme (consonant-vowel-consonant, or CVC) words. (This does not include CVC ending with /l, r, or n.)
  - RF.K.2.e: Add or substitute individual sounds (phonemes) in simple, one-syllable words to make new words.

Phonics and Word Recognition
- RF.K.3: Know and apply grade-level phonics and word analysis skills in decoding words.
  - RF.K.3.a: Demonstrate basic knowledge of one-to-one letter-sound correspondences by producing the primary or many of the most frequent sounds for each consonant.
  - RF.K.3.b: Associate the long and short sounds with common spellings (graphemes) for the five major vowels.
  - RF.K.3.c: Read common high-frequency words by sight (e.g., the, of, to, you, she, my, is, are, do, does).
  - RF.K.3.d: Distinguish between similarly spelled words by identifying the sounds of the letters that differ (e.g., bat/cat, bat/bid/ back/bad).

Fluency
- RF.K.4: Read emergent-reader texts with purpose and understanding.
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### Kindergarten Print Concepts

<table>
<thead>
<tr>
<th>RF.K.1</th>
<th>Demonstrate understanding of the organization and basic features of print.</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF.K.1.a</td>
<td>Follow words from left to right, top to bottom, and page by page.</td>
</tr>
<tr>
<td>RF.K.1.b</td>
<td>Recognize that spoken words are represented in written language by specific sequences of letters.</td>
</tr>
<tr>
<td>RF.K.1.c</td>
<td>Understand that words are separated by spaces in print and can point with one-to-one correspondence.</td>
</tr>
<tr>
<td>RF.K.1.d</td>
<td>Recognize and name all upper- and lowercase letters of the alphabet.</td>
</tr>
</tbody>
</table>

- What parts of the brain are activated in these standards?
- What activities are done in your classroom that connect the brain to these standards?
- How can you increase brain activities on these standards?
Kindergarten PA

Phonological Awareness
RF.K.2 Demonstrate understanding of spoken words, syllables, and sounds (phonemes).
RF.K.2.a Recognize and produce rhyming words.
RF.K.2.b Count, pronounce, blend, and segment syllables in spoken words.
RF.K.2.c Blend and segment onsets and rimes of single-syllable spoken words.
RF.K.2.d Isolate and pronounce the initial, medial vowel, and final sounds (phonemes) in three-phoneme (consonant-vowel-consonant, or CVC) words. (This does not include CVC ending with /l/, /r/, or /x/.)
RF.K.2.e Add or substitute individual sounds (phonemes) in simple, one-syllable words to make new words.

- What parts of the brain are activated in these standards?
- What activities are done in your classroom that connect the brain to these standards?
- How can you increase brain activities on these standards?
Kindergarten Phonics

Phonics and Word Recognition
RF.K.3 Know and apply grade-level phonics and word analysis skills in decoding words.
RF.K.3.a Demonstrate basic knowledge of one-to-one letter-sound correspondences by producing the primary or many of the most frequent sounds for each consonant.
RF.K.3.b Associate the long and short sounds with common spellings (graphemes) for the five major vowels.
RF.K.3.c Read common high-frequency words by sight (e.g., the, of, to, you, she, my, is, are, do, does).
RF.K.3.d Distinguish between similarly spelled words by identifying the sounds of the letters that differ (e.g., bat/cat, bat/bit/, bat/bad).

- What parts of the brain are activated in these standards?
- What activities are done in your classroom that connect the brain to these standards?
- How can you increase brain activities on these standards?
# Standards 1st

**Print Concepts**

<table>
<thead>
<tr>
<th>Grade 1</th>
<th>Reading: Foundational</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Print Concepts</strong>&lt;br&gt;RF. 1.1</td>
<td>Demonstrate understanding of the organization and basic features of print.</td>
</tr>
<tr>
<td>RF. 1.1.a</td>
<td>Demonstrate book orientation knowledge.</td>
</tr>
<tr>
<td>RF. 1.1.b</td>
<td>Have an understanding of important reading terminology (e.g., word(s), letter(s), beginning of sentence, top of the page, bottom of the page).</td>
</tr>
<tr>
<td>RF. 1.1.c</td>
<td>Recognize the distinguishing features of a sentence (e.g., first word, capitalization, ending punctuation).</td>
</tr>
</tbody>
</table>

**Phonological Awareness**

<table>
<thead>
<tr>
<th>RF. 1.2</th>
<th>Demonstrate understanding of spoken words, syllables, and phonemes.</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF. 1.2.a</td>
<td>Distinguish long from short vowel sounds in spoken single-syllable words.</td>
</tr>
<tr>
<td>RF. 1.2.b</td>
<td>Orally produce single-syllable words by blending phonemes, including consonant blends.</td>
</tr>
<tr>
<td>RF. 1.2.c</td>
<td>Isolate and produce initial, medial vowel, and final phonemes in spoken single-syllable words.</td>
</tr>
<tr>
<td>RF. 1.2.d</td>
<td>Orally segment single-syllable words into their complete sequence of individual phonemes.</td>
</tr>
</tbody>
</table>

**Phonics and Word Recognition**

<table>
<thead>
<tr>
<th>RF. 1.3</th>
<th>Know and apply grade-level phonics and word analysis skills in decoding words.</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF. 1.3.a</td>
<td>Know the sound-spelling correspondences for common consonant digraphs.</td>
</tr>
<tr>
<td>RF. 1.3.b</td>
<td>Decode regularly spelled one-syllable words.</td>
</tr>
<tr>
<td>RF. 1.3.c</td>
<td>Know final -e and common vowel team patterns for representing long vowel sounds.</td>
</tr>
<tr>
<td>RF. 1.3.d</td>
<td>Use knowledge that every syllable must have a vowel sound to determine the number of syllables in a printed word.</td>
</tr>
<tr>
<td>RF. 1.3.e</td>
<td>Use vowel patterns to decode two-syllable words by breaking the words into syllables.</td>
</tr>
<tr>
<td>RF. 1.3.f</td>
<td>Read words with inflectional endings (e.g., makes, walked, ended, played, going).</td>
</tr>
<tr>
<td>RF. 1.3.g</td>
<td>Recognize and read grade-appropriate words.</td>
</tr>
</tbody>
</table>
Kansas leads the world in the success of each student.
What parts of the brain are activated in these standards?
What activities are done in your classroom that connect the brain to these standards?
How can you increase brain activities on these standards?
1st Grade PA

Phonological Awareness
RF.1.2 Demonstrate understanding of spoken words, syllables, and phonemes.
RF.1.2.a Distinguish long from short vowel sounds in spoken single-syllable words.
RF.1.2.b Orally produce single-syllable words by blending phonemes, including consonant blends.
RF.1.2.c Isolate and produce initial, medial vowel, and final phonemes in spoken single-syllable words.
RF.1.2.d Orally segment single-syllable words into their complete sequence of individual phonemes.

- What parts of the brain are activated in these standards?
- What activities are done in your classroom that connect the brain to these standards?
- How can you increase brain activities on these standards?
1st Grade Phonics

Phonics and Word Recognition
RF.1.3 Know and apply grade-level phonics and word analysis skills in decoding words.

RF.1.3.a Know the sound-spelling correspondences for common consonant digraphs.
RF.1.3.b Decode regularly spelled one-syllable words.
RF.1.3.c Know final -e and common vowel team patterns for representing long vowel sounds.
RF.1.3.d Use knowledge that every syllable must have a vowel sound to determine the number of syllables in a printed word.
RF.1.3.e Use vowel patterns to decode two-syllable words by breaking the words into syllables.
RF.1.3.f Read words with inflectional endings (e.g., makes, walked, ended, played, going).
RF.1.3.g Recognize and read grade-appropriate words.

- What parts of the brain are activated in these standards?
- What activities are done in your classroom that connect the brain to these standards?
- How can you increase brain activities on these standards?
Standards 2nd

Grade 2
Reading: Foundational

Print Concepts
RF.2.1 Not Applicable to Grade 2.

Phonological Awareness
RF.2.2 Not Applicable to Grade 2.

Phonics and Word Recognition
RF.2.3 Know and apply grade-level phonics and word analysis skills in decoding words.
- RF.2.3.a Distinguish long and short vowels when reading regularly spelled one-syllable words.
- RF.2.3.b Know correspondences for additional common vowel teams (e.g., steak).
- RF.2.3.c Decode regularly spelled two-syllable words with long vowels.
- RF.2.3.d Decode words with common prefixes and suffixes (e.g., redo, untie, fastest, taller).
- RF.2.3.e Identify words with inconsistent but common spelling-sound correspondences (e.g., -ay, -igh).
- RF.2.3.f Recognize and read grade-appropriate words.

Fluency
RF.2.4 Read with sufficient accuracy and fluency to support comprehension.

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### 2nd Grade Phonics

**Phonics and Word Recognition**

- **RF.2.3** Know and apply grade-level phonics and word analysis skills in decoding words.
  - **RF.2.3.a** Distinguish long and short vowels when reading regularly spelled one-syllable words.
  - **RF.2.3.b** Know correspondences for additional common vowel teams (e.g., steak).
  - **RF.2.3.c** Decode regularly spelled two-syllable words with long vowels.
  - **RF.2.3.d** Decode words with common prefixes and suffixes (e.g., redo, untie, fastest, taller).
  - **RF.2.3.e** Identify words with inconsistent but common spelling-sound correspondences (e.g., -ay, -igh).
  - **RF.2.3.f** Recognize and read grade-appropriate words.

- What parts of the brain are activated in these standards?
- What activities are done in your classroom that connect the brain to these standards?
- How can you increase brain activities on these standards?
Standards 3rd

Grade 3
Reading: Foundational

Print Concepts
RF.3.1 Not applicable to Grade 3

Phonological Awareness
RF.3.2 Not applicable to Grade 3

Phonics and Word Recognition
RF.3.3 Know and apply grade-level phonics and word analysis skills in decoding words.
   RF.3.3.a Identify and know the meaning of the most common prefixes and derivational suffixes (e.g., infeld, wonderful).
   RF.3.3.b Decode words with common Latin suffixes (e.g., -able, -ation, -ible).
   RF.3.3.c Decode multisyllabic words.
   RF.3.3.d Read grade-appropriate irregularly spelled words.

Fluency
RF.3.4 Read with sufficient accuracy and fluency to support comprehension.
   RF.3.4.a Read on-level text with purpose and understanding.
   RF.3.4.b Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.
   RF.3.4.c Use context to confirm or self-correct word recognition and understanding, rereading as necessary.
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What parts of the brain are activated in these standards?

What activities are done in your classroom that connect the brain to these standards?

How can you increase brain activities on these standards?
Recap and Closure

- Elevator Pitch –
  - Work on a 60 second ‘elevator pitch’ of today’s training. Imagine you are a salesperson and you have 60 seconds to sell this training with the information that you have learned.
  - While the music plays write down your pitch and be sure you cover important facts – use your structured note taking guide as help.
  - When the music ends find someone at a different table who has the same shoe size as you and give them your pitch and listen to theirs.
Thank You

Session Survey

https://goo.gl/forms/CWgp3SJ6tovlRnbI2
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Cynthia (Cindy) Hadicke, *Elementary Program Consultant*
Kansas State Department of Education
900 SW Jackson St.
Suite 653
785-296-2749
chadicke@ksde.org

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