



## ***Kansas Effective Practices Instructional Toolkit***

Implementing Research and Resources Into Action  
Research Lesson 1: Daily Challenges

### **Ascending Intellectual Demand Strength Area: Spatial**

Level III - Intensive/Individualized	Internship in field of interest Present original work to authentic audience Professional workshops (architect, visual artist)
Level II - Targeted	Idea sketching College guidance Study of spatial personality traits Mentor for individual interest Group spatial gifted learners on projects
Level I - Core	Computers Mind mapping Organization skills Mental Snapshots Mind ware (spatial games) Artist-in-residence Models, maps, science equipment Critical and creative thinking software Math Mind Benders for grades 3-12 Demonstrations, experiments, graphic organizers Action-oriented activities (hands-on experience) Research inventors, scientists, architects, designers, artists, or movie producers of personal interest

### **Frequently Asked Questions**

#### ***Are the spatially gifted at risk?***

In a study of over 1,000 spatially gifted high school seniors, Gohm, Humphreys, and Yao reported that they were “disenchanted with education” (1998, p. 528). They further reported that this group received less college guidance from school counselors, were less likely to go to college, and had lower career aspirations than equally intelligent students who excelled in mathematics.

Spatial visualization, in addition to math and verbal skills, is an important ability for becoming an engineer, physical scientist, or artist. Industry and the military recognize the predictive importance of spatial ability, and this is slowly being recognized in the academic environment. Some teachers already incorporate overhead projectors, computers demonstration, hands-on experiences, construction projects, and other methods in the classroom. See [www.ncsu.edu/effective\\_teaching](http://www.ncsu.edu/effective_teaching).

#### ***What should I see happening for my spatial gifted child in the classroom?***

The use of visualization techniques and teaching to the strength of your child should be easily observed. The teacher should show your child what to do, not just tell him what to do. Your child should be able to tell you the goal of instruction. Learning should include creative imagination and the use of discovery techniques.

There should be little emphasis on drill, repetition, and rote memorization for your child. Timed tests should rarely be used. Requirements to show their work may be difficult for spatial children. Your child

should be allowed to construct, draw, or otherwise visually represent what he has learned as a substitute for some written assignments. Use of computers and the keyboard is a must. Hands-on experiences should be a part of every lesson.

## Resources

ABCs of the Writing Process (graphic organizers): [www.angelfire.com/wi/writingprocess/spedificgos.html](http://www.angelfire.com/wi/writingprocess/spedificgos.html)

Concept Mapping: [www.uwp.ed.academic/stec/MBASC/Concept\\_Mapping/concept.mapping.faq.html](http://www.uwp.ed.academic/stec/MBASC/Concept_Mapping/concept.mapping.faq.html)

Critical & Creative Thinking; 1-800-458-4849.

Dixon, J. *The Spatial Child*. (1983). Springfield, IL: Charles C. Thomas.

Gardner, H. (1999). *Intelligence Reframed: Multiple Intelligences for the 21st Century*. New York: Basic Books.

Hands-On Equations: [www.borenson.com](http://www.borenson.com)

Inspiration Software: [www.inspiration.com](http://www.inspiration.com)

Mindware: [www.mindwareonline.com](http://www.mindwareonline.com)

Mind Benders: [www.prufrock.com](http://www.prufrock.com)

Silverman, L. (2002). *Upside-Down Brilliance*. Denver, CO: DeLeon Publishing.

Targin & Walker. (1996). *Creating Success in the Classroom: Visual Organizers and How to Use Them*. Teacher Ideas Press: [www.lu.com/tips/](http://www.lu.com/tips/)

Teaching Company: [www.teachco.com](http://www.teachco.com)

Zephyr Press: [www.sephyress.com](http://www.sephyress.com)