

## **Suggestions to Extend Verbal Reasoning Skills**

Verbal reasoning thinking skills include using reasoning, flexibility, fluency, and adaptability in working with words and solving verbal problems. Some things you could do to support children's growth in this area include:

- Read a variety of genres, including fiction, non-fiction, biography, poetry, memoir
- Generate a list of questions about a vocabulary word, a story, a character, a setting, etc.
- Create a drawing, model, or action for vocabulary words
- Write vocabulary word definitions in your own words
- Write synonyms and antonyms for unknown words
- Learn Greek and Latin word roots
- Learn which English words are based upon words from other languages
- Analyze multiple-meaning words and decide when to use each meaning
- Use fantasy to discuss vocabulary words or write stories
- Write a sentence where each word begins with letters in alphabetical order
- Create new titles for pictures, stories, cartoons, etc.
- Create riddles, jokes, cartoons
- Create new idioms (“in hot water”)
- Create new similes (“mean as a snake”)
- Create analogies, “How is a \_\_\_\_ like a \_\_\_\_?”
- Write poetry in different styles.
- Put poetry to percussion music.
- Use adjectives and adverbs
- Perform plays, puppet shows, readers’ theatre.
- Create dialogue from an unusual perspective, like that of an animal, an object, a historical person, etc.
- Research the facts behind historical fiction, write historical fiction
- Learn a foreign language
- Participate in such programs as Georgia State Saturday School
- Attend plays or puppet shows at such places as Center for Puppetry Arts or Kudzu Playhouse
- Read books that use content creatively, such as *The Phantom Tollbooth* by Juster and *Lost in Lexicon* by Noyce
- Use Enrichment Sites on [www.fultongifted.org](http://www.fultongifted.org)
- Use resources such as Tin Man Press, Bright Ideas, Gifted and Talented Workbook Series, Creative Learning Press, Creative Teaching Press, Critical Thinking Co.

## Suggestions to Extend Quantitative Reasoning Skills

Quantitative reasoning skills include high-level problem solving with mathematical computation, quantitative symbols and concepts. Some things you could do to support children's growth in this area include:

- Identify connections between different math processes
- Discuss and practice using math in other disciplines such as architecture, physics, chemistry
- Use math in real-life such as baking, grocery store, travel planning
- Ask "How could we improve...(the triangle, long division, etc.)?"
- Have students generate a list of questions about the math concept
- Study number systems not based on 10
- Use a variety of problem-solving strategies, such as: make a list, look for a pattern, guess and test, draw a diagram, work backwards
- Have children create their own math problems, number system, or problem-solving strategy
- Practice multi-step math problems
- Ask students to prove their answer to a math problem
- Use open-ended problems and decide what processes should be used and what outcomes are expected
- Teach children to ask "Is this answer reasonable?"
- Ask "What is the chance of (an event) occurring?"
- Create charts, tables, graphs to show Social Studies content
- Use data to make predictions for a science experiment
- Ask "What might happen if...?" questions such as: What might happen if the numbers 84 and 95 changed places or circles developed a straight side?
- Create riddles, jokes, cartoons about math concepts
- Use fantasy to discuss math content
- Learn computer programming
- Use the computer program *Study Island* for advanced content
- Participate in such programs as: Georgia State Saturday School, Camp Invention
- Read books that use math content creatively, such as *The Phantom Tollbooth* by Juster
- Use Enrichment Sites on [www.fultongifted.org](http://www.fultongifted.org)
- Use resources such as Gifted and Talented Workbook Series, Creative Learning Press, Creative Teaching Press, Critical Thinking Co.

## **Suggestions to Extend Non-Verbal Reasoning Skills**

Non-verbal reasoning skills include understanding, remembering, and making visual sequences, interpreting the meaning of and relationships between the visual presentations or pictures. Some things you could do to support children's growth in non-verbal abilities include:

- Construct, draw, or create visual representations of content
- Take picture notes as well as word notes for content
- Pre-read the visuals in a chapter
- Create a mind-map of content
- Use metaphors to make connections between content
- Analyze paintings, sculpture, music, dance
- Experiment with different mediums to create art projects
- Build with Legos or K'Nex
- Do puzzles, create puzzles
- Identify similarities and differences between shapes in the world around you
- Create complicated color patterns and tessellations
- Draw objects from unusual perspectives
- Practice elaboration: How many details can you add?
- Create a new picture by changing a picture already made
- Create a larger picture by adding to a picture already made
- Combine two pictures into one new picture
- Practice showing emotion, movement, humor in drawing
- Practice drawing symmetry
- Ask "How does (a concept) look, sound, taste, smell, feel?"
- Use guided imagery/visualization
- Practice activities in *How To Think Like Leonardo da Vinci* by Gelb
- Participate in such programs as Georgia State Saturday School and Camp Invention
- Field trips to science museums, art museums, nature centers
- Use the software program *Making More Music* ([voyager.learntech.com](http://voyager.learntech.com))
- Use Enrichment Sites on [www.fultongifted.org](http://www.fultongifted.org)
- Use resources such as Tin Man Press, Bright Ideas, Nature Watch, Delta Education, Museum Tour, Gifted and Talented Workbook Series, Creative Learning Press, Creative Teaching Press, Critical Thinking Co.
- Learn more at <http://www.visualspatial.org/>

## Suggestions To Extend Creative Thinking Skills

A definition of creativity is “What do I do when I confront a problem for which I have no learned solution?” Creativity is not only the arts. Successful people in all disciplines use creative thinking skills. Some things you could do to support children’s growth in creative thinking skills include:

- Analyze paintings, sculpture, music as they pertain to content
- Create riddles, jokes, or cartoons based upon content
- Create analogies based upon content: “How is a \_\_\_ like a \_\_\_?”
- Use guided imagery/visualization
- Practice fluency: How many ideas can you make?
- Practice elaboration: How many details can you add?
- Ask “What might happen if...?”
- Ask “What don’t we know about...(content)?”, Generate lists of questions
- Ask “How can you improve...?”
- Ask “What are the ethical or global implications of...?”
- Ask “How does (a concept) look, sound, taste, smell, feel?”
- Ask “What possible explanations are there for...?”
- Ask “What possible consequences are there for...?”
- Write dialogue between historical characters, scientific processes, etc.
- Combine characters from different stories to make a new story
- Construct, draw, or create visual representations of content
- Participate in such programs as: Odyssey of the Mind, Future Problem-Solving, Georgia State Saturday School, Camp Invention
- Field trips to such places as art museums
- Read books that use content creatively, such as *The Phantom Tollbooth* by Juster and *Lost in Lexicon* by Noyce
- Use fantasy to discuss content
- Analyze content from more than one point of view/perspective
- Practice activities in *How To Think Like Leonardo da Vinci* by Gelb
- Use Enrichment Sites on [www.fultongifted.org](http://www.fultongifted.org)
- Use resources such as Tin Man Press, Bright Ideas, Nature Watch, Museum Tour, Gifted and Talented Workbook Series, Creative Learning Press, Creative Teaching Press, Critical Thinking Co.