

## How Cognitive Skills Relate to Iowa State Assessment Test Questions



### Reading:

Cognitive Skill	Application to test questions	BrainWare Safari Exercises Developing the Skill
<p><b><i>Sustained Attention</i></b> – the ability to stay on task for a sustained period of time.</p>	<p>Reading a passage for comprehension requires sustained attention. If attention is not sustained, parts of the passage may not be processed or understood.</p>	<p>Most BrainWare Safari exercises work on sustained attention, including <b><i>Iguana Lookout, Jungle Labyrinth, Rhythm Ribbet, and Slithering Symbols.</i></b></p>
<p><b><i>Visual Sequential Memory</i></b> – the ability to recall a sequence of bits of information in the same order as originally received.</p>	<p>After reading a short passage, a question which asks, “Which event happened first in a sequence?”</p>	<p><b><i>Arrow Point Bridge, Bear Shuffle, Rhythm Ribbet and Slithering Symbols</i></b> are exercises that work on visual sequential memory.</p>
<p><b><i>Conceptual Thinking</i></b> – the ability to recognize a collection of features that go together to create an idea or category of ideas.</p>	<p>After reading a short passage, a question which asks, “This passage would most likely be in a book called--?”</p>	<p><b><i>Ancient Logic and Reasoning</i></b> and <b><i>Llama Logic</i></b> help develop conceptual thinking skills.</p>

There are many cognitive skills involved in learning as well as being tested on what one has learned. This document provides examples of how standardized tests place demand on cognitive skills. This is not meant to provide a complete perspective on cognitive skills or a thorough analysis of standardized testing. These are simply examples for illustration. BrainWare Safari is a product of Learning Enhancement Corporation. It is a comprehensive program that develops 41 cognitive skills in a fun and entertaining video game format. For more information, contact Learning Enhancement Corporation at [www.BrainWareforYou.com](http://www.BrainWareforYou.com) or 877-BRAIN-10 (877-272-4610). Because the Iowa Test of Basic Skills does not release test items and local districts in Iowa form their own curriculum standards, these items are meant to serve as typical sample test items that could be found on a state assessment test.

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### Mathematics:

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<p><b>Visualization</b> – the ability to recall an image of what has been seen and to mentally manipulate and change aspects of that image in the mind.</p>	<p>“Imagine folding this shape along the dotted lines. Which solid figure would you make?”</p>	<p>Most BrainWare Safari exercises develop visualization skills. Such exercises include <b>Cave Comparisons, Piranha Pass, Web Weaving,</b> and <b>Whispering Waterfall.</b></p>
<p><b>Oculomotor</b> – the ability to use the eyes efficiently to read and gather information from the environment.</p>	<p>Shown a final graph, “Which of the following tally graphs did the student use to make his graph?”</p>	<p><b>Iguana Lookout, Jungle Labyrinth, Piranha Pass, Sky Scanning</b> and <b>Turtle Recall</b> address oculomotor skills.</p>
<p><b>Working Memory</b> – the ability to hold information in the mind while performing a mental operation on it.</p>	<p>“Mary is three years older than twice the age of her little brother. If her little brother is four years old, how old is Mary?”</p>	<p><b>Bear Shuffle, Cave Comparisons, Memory Mountain</b> and <b>Tree Tic-Tac-Toe</b> are among the exercises that improve working memory skills.</p>

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### Science:

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<b>Visual Discrimination</b> – the ability to distinguish differences.	Shown a simple chart, “Which ice-cream flavor did most students pick as their favorite?”	BrainWare Safari exercises that develop visual discrimination include <b>Cave Comparisons</b> , <b>Jumping Jaguar Flash</b> , <b>Sky Scanning</b> and <b>Volcanic Patterns</b> .
<b>Reasoning</b> – the ability to form concepts and solve problems using unfamiliar information.	“In which of these environments would webbed feet be most helpful for survival?”	<b>Ancient Logic and Reasoning</b> and <b>Piranha Pass</b> are two of the exercises that develop reasoning skills.
<b>Logic</b> – the ability to reason and think rationally and analytically.	“What is the main advantage of making a laptop computer light in weight?”	<b>Llama Logic</b> and <b>Tree Tic-Tac-Toe</b> are two of the exercises that develop logic skills.

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