

## **Scientifically-based Programs Designed to Improve Cognitive & Perceptual Abilities for the Prevention of Learning Dysfunctions and for the Acceleration of Student Literacy and Numeracy**

The foundation of Synap2it's Learning Development Programs are based on Dr. J.P. Guilford and Drs. Mary & Rober Meeker's Structure of Intellect (SOI) Model. The Synap2it Programs provide individualized skill-development activities to improve the cognitive and perceptual abilities required for reading and math achievement. Fundamentally, the Synap2it Programs strengthen the five operations of the mind used upon content and instruction:

1. **Comprehension:** Immediate discovery, awareness, recognition.
2. **Memory:** Retention and recall.
3. **Evaluation:** Reduction of uncertainty, judgment, foresight, comparison/contrast.
4. **Convergent Thought Production:** Problem-solving, rule-following.
5. **Divergent Thought Production:** Creativity, variety and quality of output.

If students do not have the requisite skills needed for learning curricular content, regardless of what intelligences such content might involve, attempts to remediate content deficiencies will likely be futile. To the contrary, once students develop these skills, teachers can then approach these essential skills of education confident in their students' abilities to learn challenging material. These learning skills will then become the basis for lifelong tools for mastering any learning task.

Many students who struggle with learning to read or compute math experience underdeveloped perceptual and psychomotor processing that impairs their abilities in **Comprehension** – the most basic mental operation in the SOI Model. Therefore, the Synap2it Programs employ activities that develop visual, auditory and sensory processing to improve students' attention, concentration, focus, phonemic awareness, discrimination, sequencing, balance, spatial awareness, and fine and gross motor coordination.

Simply put, the Synap2it Programs develop students' abilities to comprehend, memorize, evaluate, problem-solve, and think creatively within a learning environment. Furthermore, the Synap2it Programs develop students' visual, auditory, and sensory processing skills upon which these five cognitive operations rely. Once students have sufficiently developed these intelligences, then students' academic and behavioral performance enhances.

The outcomes of Synap2it Programs are the following:

- Increases in student academic performance across the board,
- Reductions in tutoring services,
- Increases in student confidence and motivation, and
- Greater classroom efficiency as a result of improved student participation & productivity.

Effects of the Synap2it programs on a child's life are pervasive. When a person actively engages in their learning and begins to experience success, frustration and discipline problems decrease markedly. Synap2it supports the parents and the student's teacher every step of the way with progress reports and open communications.

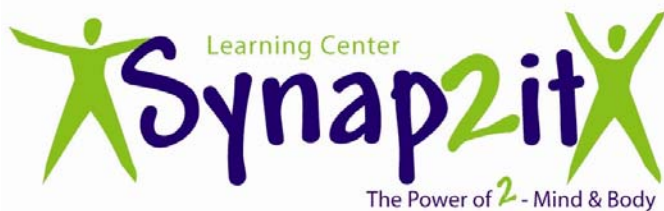


## Assesses and Develops 26 different Cognitive Abilities...

	Cognitive Ability	Curriculum Area	Consequences if Underdeveloped
<b>Comprehension</b>	Visual closure	Reading Readiness	Will not see each word completely
	Visual conceptualization	Reading Readiness	Difficulty with classification
	Constancy of object in space	Mathematics	Difficulty manipulating spatial relationships
	Spatial conservation (Piaget)	Mathematics	Difficulty with perspective; inhibited in Geometry
	Notational relations	Arithmetic/Mathematics	Difficulty with 'Integrated Mathematics'
	Notational progressions	Arithmetic/Mathematics	Poor Arithmetic foundation; weak on 'Math Facts'
	Vocabulary	Reading & Language Arts	Will have 'word holes' in sentences
	Verbal relations (analogies)	Reading & Language Arts	Poor at analogies
	Extended verbal comprehension	Reading & Language Arts	Inability to track long or involved sentences
<b>Memory</b>	Memory for visual details	Reading & Language Arts	Weak in memory for details
	Visual attending	Reading Readiness	Difficulty with Spelling; loses visual concentration
	Visual sequencing	Reading Readiness	Will not be able to hold and process or sequence data
	Auditory attending	Arithmetic	May have auditory discrimination problems
	Auditory sequencing	Arithmetic	Unable to hold information presented orally
	Verbal implications	Language Arts	Unable to work with abstract or incongruous information
<b>Judgment</b>	Visual discrimination	Reading Readiness/Spelling	May mistake letters or omit small words in sentences
	Judging similarity of concepts	Reading Readiness	Problems with similarities and differences
	Notational concepts	Arithmetic/Mathematics	Difficulty using set concepts
	Notational processes	Arithmetic/Mathematics	Prone to 'math anxiety'; unable to handle ambiguity
<b>Problem Solving</b>	Psychomotor coordination	Handwriting	Slow at work requiring hand-eye coordination
	Application of numerical facts	Arithmetic	Difficulty with seeing Arithmetic solutions
	Speed of word recognition	Reading	Loses place while reading; skipping words or lines
	Form reasoning and logic	Mathematics	Will have difficulty with thought problems
<b>Creativity</b>	Creativity with things	Spatial/Graphic Arts	Will be inhibited in tasks without explicit instructions
	Creativity with notation relations	Math/Programming	Difficulty with Mathematics concepts
	Creativity with words and ideas	Creative Writing	Will be slow and/or pedantic in written composition

## And 17 Perceptual Skills...

	Perceptual Skill	Curriculum Area	Consequences if Underdeveloped
<b>Sensory Integration</b>	<b>Crossing midline of body</b>	All Curriculum Areas	Difficulty carrying out sequences of actions in proper order
	<b>Mentally crossing midline of body</b>	All Curriculum Areas	Difficulty carrying out sequences with automaticity
	<b>Balance</b>	All Curriculum Areas	Difficulty sitting still, focusing on instruction
	<b>Body in space</b>	All Curriculum Areas	Difficulty telling left from right, spatial relations, visualization
	<b>Eye-hand coordination</b>	All Curriculum Areas	Difficulty with handwriting, drawing, general learning capacity
<b>Visual Processing</b>	<b>Normal reading distance</b>	All Curriculum Areas	Referral to Optometrist/Vision Therapist if eyesight over 20/40
	<b>Targeting an object</b>	All Curriculum Areas	Difficulty moving eyes from word to word on the page
	<b>Moving across the page</b>	All Curriculum Areas	Difficulty with reading comprehension and attention span
	<b>Aiming at the target</b>	All Curriculum Areas	Difficulty focusing in for near object, out for distant object
	<b>Shifting seatwork to boardwork</b>	All Curriculum Areas	Experiences 'blurring' when looking from desk to blackboard
	<b>Teaming observation</b>	All Curriculum Areas	Will not see the whole page
<b>Auditory processing</b>	<b>Auditory Recognition</b>	All Curriculum Areas	Difficulty comprehending individual sounds in spoken language
	<b>Auditory Recognition with Noise</b>	All Curriculum Areas	Difficulty comprehending individual sounds when distractions are present in the environment
	<b>Auditory Discrimination</b>	All Curriculum Areas	Difficulty discriminating different sounds in spoken language
	<b>Auditory Discrimination with Noise</b>	All Curriculum Areas	Difficulty discriminating different sounds when distractions are present in the environment
	<b>Auditory Memory For Detail</b>	All Curriculum Areas	Difficulty remembering details of information presented orally
	<b>Auditory Sequencing</b>	All Curriculum Areas	Difficulty holding information presented in spoken language



537 Ritchie Highway, Severna Park, MD 21146  
 Phone: 410-544-8666 FAX: 410-544-8667  
[www.synap2it.com](http://www.synap2it.com) WriteToUs@synap2it.com