

Cognitive Abilities Test (CogAT)

The CogAT is a test of reasoning skills. It's not like a spelling or a math test where if you know the words or the facts you can get 100%. There is no defined curriculum for the CogAT. It is a norm-referenced test and the national average is 50th percentile. There are three parts to the CogAT: Verbal Battery, Quantitative Battery, and Non-Verbal Battery.

Verbal Battery

The Verbal Battery tests a student's vocabulary, as well as his/her comprehension of ideas, efficiency and verbal memory, and ability to discover word relationships. Statistics show a high correlation between high verbal ability and success in a variety of school subjects.

Three sub-tests are administered in the verbal section. Each test has approximately 20 questions and the student is given ten minutes to complete each sub-test. These three sub-tests comprise the verbal score.

Verbal Classification

The student is given a list of three words that are alike in some way. The student is asked to choose a word, from a selection of five words, that is also alike in the same way.

Example: *green blue red.*

Choices: *color; crayon, paint, yellow, rainbow.*

Sentence Completion

The student is given a sentence with a word left out and is asked to choose a word that makes the best sense in the sentence.

Example: *Apples on trees.*

Choices: *fall; grow; show; bloom; spread.*

Verbal Analogies

The student is given three words in dark type. The first two words go together. The third word goes with one of the answer choices. The student is asked to choose the word that goes with the third word the same way that the second word goes with the first.

Example: *new (is to) old : wet (is to)*

Choices: *rain; drip; hot; sun; dry .*

Quantitative Battery

The Quantitative Battery tests the student's quantitative reasoning and problem solving ability and provides an appraisal of the student's general level of abstract reasoning.

Three tests are administered in the quantitative battery. The first test has twenty-five questions and students are given 8 minutes to finish. The second has 20 questions with a 10 minute testing time. The third has fifteen questions with a 12 minute testing time.

Quantitative Relations

The student is given two problems numbered one and two with three answer choices. The student is to solve the two problems and determine if the answer is greater, less than, or equal to.

Example: 1. $0+3$ 2. $3+0$

Choices: a) 1 is greater than 2; b) 1 is less than 2; c) 1 is equal to 2.

Number Series

The student is given a series of numbers and is asked to decide which number should come next in the series.

Example: 5; 10; 15; 20

Choices: 25; 30; 35; 40; 45.

Equation Building

The student is given numbers and signs. The student is asked to combine the numbers and signs to get a solution that is an answer choice.

Example: $1\ 2\ 3\ -\ x$

Choices: 1; 2; 3; 4; 6.

Non-Verbal Battery

The Nonverbal Battery presents the most novel problems to students. The items on these tests use only geometric shapes and figures that have had little direct relationship to formal school instruction. The tests require no reading. The nonverbal battery is particularly suitable for obtaining an accurate estimate of development for students who have difficulty with reading, who have limited competency in English, or who have limited opportunities. The tests in the nonverbal battery are between fifteen and twenty-five questions each and students are given ten minutes for each test.

Figure Classification

The student is given three figures that are alike in some way. They are given three answer choices and five pictures to choose from. They are asked to decide which figure goes best with the three answer choices.

Example: *The student is given three items that are odd shaped but each one has 4 sides and is black.*

Choices: *a black circle; a black triangle; a 4 sided white object; a black 4 sided object; six-sided white object.*

Figure Analogies

The student is given three figures. The first two figures go together; the third figure goes with one of the answer choices.

Example: *The first two figures are a large square that goes together with a small square. The second pair is to go together the same way that the first two figures go together. For the second pair you are given a large circle.*

Choices: *a small triangle; a large circle; a small square; a small circle; and a large rectangle.*

Figure Analysis

The student is shown how a square piece of dark paper is folded and where holes are punched in it. The student is to figure out how the paper will look when it is unfolded.

Example: *If a dark piece of paper is folded in the center from top to bottom and a hole is punched in the bottom right hand corner, what will the piece of paper look like when it is unfolded?*

Choices: A) one hole in the bottom right hand corner; B) one hole in the bottom right hand corner and one in the top right hand corner; C) one hole in the top right hand corner; D) one hole in the bottom right hand corner and one in the bottom left hand corner; E) one hole in the bottom right hand corner and one in the top left hand corner.☒

	Picture Format (Levels 5/6-8)	Text/Standard Format (Levels 9-17/18)
VERBAL BATTERY	Picture/Verbal Analogies 	TV → watch : newspaper → J deliver K comics L read M magazine N listen
	Sentence Completion "Which one swims in the ocean?" 	The fastest runner _____ the race. A loses B wins C watches D starts E makes
	Picture/Verbal Classification 	apple orange pear A fruit B carrot C pea D lemon E onion
QUANTITATIVE BATTERY	Number Analogies 	[1 → 2] [3 → 4] [5 → ?] A 2 B 4 C 6 D 8 E 12
	Number Puzzles 	$[\text{?}] = 2 + 3$ A 2 B 3 C 4 D 5 E 6
	Number Series 	1 2 4 5 7 8 → A 7 B 8 C 9 D 10 E 11
NONVERBAL BATTERY	Figure Matrices 	
	Paper Folding 	
	Figure Classification 	

Figure 2 shows the item types used in Form 7. The left column shows examples of how some of the items appear in the level 5/6 – 8 tests and the right column shows how the same kind of items appear in the corresponding level 9 – 17/18 tests.