The TAKS test assesses how well students understand science, including physics, chemistry, and biology concepts, and how well they can apply and analyze scientific information. The knowledge and skills tested are grouped into five objectives.

**Objective 1**

**The Nature of Science**

Students must be able to show an understanding of experimental design, safety issues, and methods for collecting and organizing data. Students must also be able to analyze scientific information from various sources.

**Objective 2**

**The Organization of Living Systems**

Students must be able to show an understanding of how living things depend on their environment and other organisms for survival. Students must also be able to analyze scientific information from various sources.

**Objective 3**

**The Interdependence of Organisms and the Environment**

Students must be able to show an understanding of how all living things depend on their environment and other organisms for survival.

**Objective 4**

**The Structures and Properties of Matter**

Students must be able to show an understanding of basic chemistry (what matter is composed of and what happens as matter changes).

**Objective 5**

**Motion, Forces, and Energy**

Students must be able to show an understanding of basic physics (how motion, forces, and energy are related and how these relationships help explain many of the everyday phenomena people experience).

**ENGLISH LANGUAGE ARTS**

The TAKS English language arts test is a combination reading and writing test. Students are required to answer multiple-choice and short answer questions, complete reading selections and a visual representation, write a composition on a specific topic, and answer multiple-choice revising and editing questions based on passages that resemble student writing. Students are permitted to use both a dictionary and a thesaurus on the reading and composition sections of the test but not on the revising and editing section.

**READING**

**Objective 1**

**Basic Understanding**

Students must be able to show that they have a basic understanding of the reading selections included on the test. Figuring out the meaning of unknown words, finding important details and main ideas, and recognizing accurate summaries are all part of developing a basic understanding.

**Objective 2**

**Literary Elements and Techniques**

Students must be able to show that they understand the literary elements that are found in all stories. These elements include plot, conflict, character development, setting, and theme. Students must also understand how an author combines these elements to create an effective story. In addition, students must be able to recognize the literary devices or tools an author uses to guide the reader’s understanding of a story’s characters, events, theme, and overall meaning. For example, students should know literary devices, such as flashback, foreshadowing, symbolism, and allusion.

**Objective 3**

**Analysis and Critical Evaluation**

Students must be able to show that they can develop a deep understanding of the reading selections and visual representation included on the test. They must be able to draw reasonable conclusions, use the text to support their ideas; improve the clarity and effectiveness of their writing; and improve the organization and development of their ideas; improve the clarity and effectiveness of word choice; correct and improve sentences; and correct grammar, usage, spelling, capitalization, punctuation, and punctuation errors.

**WRITING**

**Objective 4 and 5**

**Written Composition**

Objective 4 assesses the student’s ability to write an effective composition on a specific topic. He or she must be able to stay focused on the topic, organize sentences and ideas so that they are clear and easy to follow, make the ideas interesting, and develop the ideas in detail.

Objective 5 assesses the student’s ability to write as correctly and clearly as possible. This objective focuses on how well he or she communicates on paper. This means that when a student writes a composition, he or she is able to follow the rules of correct spelling, capitalization, punctuation, usage, grammar, and sentence structure. A student’s composition score represents his or her performance on Objective 4 and 5. Scores range from 1 to 4. The meaning of each score is listed below:

- A score of 1 = an ineffective response
- A score of 2 = a somewhat effective response
- A score of 3 = a generally effective response
- A score of 4 = a highly effective response

If for some reason a student’s composition could not be scored, he or she received a 0.

To pass the English language arts test, a student must score at least a 2 on the composition.

**Objective 6**

**Revising and Editing**

Objective 6 assesses the student’s ability to both improve and correct passages created to resemble student writing. He or she must be able to improve the organization and development of ideas; improve the clarity and effectiveness of word choice; correct and improve sentences; and correct grammar, usage, spelling, capitalization, punctuation, and punctuation errors.

**TEKS**

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**TAKS**

The TAKS is the name of the training program for students who entered high school before the 2011–2012 school year. These students must pass all parts of the exit level TAKS to receive a high school diploma from a Texas public school. The exit level TAKS includes four subject areas: English language arts, mathematics, science, and social studies.

** Why am I receiving this brochure?**

- to give you some basic information about the TAKS program.
- to explain a sample test report so that you can understand your child’s actual test report. This report applies to all exit level tests that your child took. However, the actual test report has your child’s name on it and shows his or her test results.
- to provide you with a short summary of each objective on the subject-area tests so that you will know what knowledge and skills that objective tested.
The TAKS mathematics test assesses how well students understand mathematics, including algebra and geometry, and how well they can apply this understanding to the real world. The knowledge and skills tested are grouped into ten objectives.

**Objective 1: Foundations for Functional Relationships**
Students must be able to show their understanding of functions represented by pairs of numbers, where the value of one number depends on the value of the other number. Students must also be able to draw conclusions from functional relationships.

**Objective 2: Properties and Attributes of Functions**
Students must be able to show their understanding of the similarities and differences between linear and quadratic functions. Students must also be able to solve algebraic equations.

**Objective 3: Linear Functions**
Students must be able to show their understanding that a linear function is an equation that can be represented by a line on a graph. Students must also know how the slope (rate of change) affects that line.

**Objective 4: Linear Equations and Inequalities**
Students must be able to show their understanding of the way to organize problems into equations and inequalities and then to find solutions to problems. Students must also know when two related equations is the best way to find a solution.

**Objective 5: Quadratic and Other Nonlinear Functions**
Students must be able to show their understanding of a quadratic function as it looks on a graph. They must also understand how the shape of the parabola on the graph changes as the equation changes. Students must know how to solve real-life problems involving quadratic equations and be able to simplify algebraic expressions by correctly using exponents.

**Objective 6: Geometric Relationships and Shapes**
Students must be able to show their understanding of how geometric concepts and properties can be used to solve everyday problems. Students must also be able to solve problems using a variety of representations, including geometric patterns, properties of transformations (such as reflections, rotations, translations, and dilations), and right-triangle patterns.

**Objective 7: Two- and Three-Dimensional Representations of Geometric Relationships and Shapes**
Students must be able to show their understanding of how solid, three-dimensional figures look from different perspectives. They must understand how to use slope to determine geometric relationships, such as parallel or perpendicular lines. Students must also be able to use rational numbers to determine the location of points on a coordinate grid.

**Objective 8: Concepts and Uses of Measurement and Similarity**
Students must be able to show their understanding of how to find the area of polygons, circles, and parts of circles as well as the surface area and volume of solid figures. They must also be able to use transformations and ratios to identify similar geometric shapes. Students must be able to determine the effect on perimeter, area, and volume when any measurement is changed. (For example, if the sides of a square are doubled, the area is four times the original area.)

**Objective 9: Percents, Proportional Relationships, Probability, and Statistics**
Students must be able to show their understanding of percents, probability, measures of central tendency, graphs, and misuse of graphical information.

**Objective 10: Mathematical Processes and Tools**
Students must be able to show their understanding of problem-solving strategies and tools, such as calculators, formulas, rulers, pictures, graphs, and tables.