

TAKS-Alt Operational Test Spring 2009 Grade 5 Mathematics Essence Statements

NOTE: The yellow highlight indicates the four state-required essence statements that comprise the TAKS–Alt assessment for Grade 5 Mathematics.

| TAKS Objective | TEKS Knowledge and Skills Statement | Essence Statement |
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| Objective 1: The student will demonstrate an understanding of numbers, operations, and quantitative reasoning. | (5.1) Number, operation, and quantitative reasoning. The student uses place value to represent whole numbers and decimals. | Uses place value to demonstrate understanding of numbers. |
| Objective 1: The student will demonstrate an understanding of numbers, operations, and quantitative reasoning. | (5.2) Number, operation, and quantitative reasoning. The student uses fractions in problem-solving situations. | Uses fractions to demonstrate understanding of parts of a whole. |
| Objective 1: The student will demonstrate an understanding of numbers, operations, and quantitative reasoning. | (5.3) Number, operation, and quantitative reasoning. The student adds, subtracts, multiplies, and divides to solve meaningful problems. | Understands and models addition, subtraction, multiplication, and division. |
| Objective 1: The student will demonstrate an understanding of numbers, operations, and quantitative reasoning. | (5.4) Number, operation, and quantitative reasoning. The student estimates to determine reasonable results. | Uses estimation strategies. |
| Objective 2: The student will demonstrate an understanding of patterns, relationships, and algebraic thinking. | (5.5) Patterns, relationships, and algebraic thinking. The student makes generalizations based on observed patterns and relationships. | Understands patterns in mathematical situations. |
| Objective 2: The student will demonstrate an understanding of patterns, relationships, and algebraic thinking. | (5.6) Patterns, relationships, and algebraic thinking. The student describes relationships mathematically. | Describes mathematical relationships using number sentences and diagrams. |
| Objective 3: The student will demonstrate an understanding of geometry and spatial reasoning. | (5.7) Geometry and spatial reasoning. The student generates geometric definitions using critical attributes. | Uses vocabulary and attributes to identify geometric figures. |
| Objective 3: The student will demonstrate an understanding of geometry and spatial reasoning. | (5.8) Geometry and spatial reasoning. The student models transformations. | Understands transformations. |
| Objective 3: The student will demonstrate an understanding of geometry and spatial reasoning. | (5.9) Geometry and spatial reasoning. The student recognizes the connection between ordered pairs of numbers and locations of points on a plane. | Locates points on a coordinate grid. |
| Objective 4: The student will demonstrate an understanding of the concepts and uses of measurement. | (5.10) Measurement. The student applies measurement concepts involving length (including perimeter), area, capacity/volume, and weight/mass to solve problems. | Uses unit conversions and measurement to solve problems. |
| Objective 4: The student will demonstrate an understanding of the concepts and uses of measurement. | (5.11) Measurement. The student applies measurement concepts. The student measures time and temperature (in degrees Fahrenheit and Celsius). | Understands temperature and time. |

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| Objective 5: The student will demonstrate an understanding of probability and statistics. | (5.12) Probability and statistics. The student describes and predicts the results of a probability experiment. | Uses probability to describe and predict the results of an experiment. |
| Objective 5: The student will demonstrate an understanding of probability and statistics. | (5.13) Probability and statistics. The student solves problems by collecting, organizing, displaying, and interpreting sets of data. | Uses probability to solve problems. |
| Objective 6: The student will demonstrate an understanding of the mathematical processes and tools used in problem solving. | (5.14) Underlying processes and mathematical tools. The student applies Grade 5 mathematics to solve problems connected to everyday experiences and activities in and outside of school. | Uses mathematics to solve everyday problems. |
| Objective 6: The student will demonstrate an understanding of the mathematical processes and tools used in problem solving. | (5.15) Underlying processes and mathematical tools. The student communicates about Grade 5 mathematics using informal language. | Communicates using informal mathematical language. |
| Objective 6: The student will demonstrate an understanding of the mathematical processes and tools used in problem solving. | (5.16) Underlying processes and mathematical tools. The student uses logical reasoning. | Uses logical reasoning. |