

Student Expectations

Both Texas and Louisiana modeled their state mathematics standards after the National Council of Teachers of Mathematics (NCTM) standards, and in Grades K-8 the strands used in the Texas Essential Knowledge and Skills (TEKS) and the Louisiana Grade Level Expectations (GLEs) are more or less parallel as illustrated below:

| Texas | Louisiana |
|---|---|
| Number, operation, and quantitative reasoning | Number and number relations (N) |
| Patterns, relationships, and algebraic thinking | Algebra (A) |
| | Patterns, relations, and functions (P) |
| Measurement | Measurement (M) |
| Geometry and spatial reasoning | Geometry (G) |
| Probability and statistics | Data analysis, probability, and discrete math (D) |

In matching individual student expectations for the side-by-side comparison, the TEKS format is used as the baseline. Due to slight differences between the states concerning the division and definition of strands, some Louisiana GLEs may match most closely with a TEKS student expectation in another area. Generally, however, the Texas strand of Patterns, Relationships, and Algebraic Thinking comprises GLEs in the two Louisiana strands of Algebra and Patterns, Relations, and Functions.

Overview of the Side-by-Side Analysis

In some cases, there is no equivalent Louisiana GLE for a particular TEKS at this grade level. However, such expectations may be addressed at another grade level in Louisiana. In other cases, a Louisiana expectation actually goes beyond the Texas expectation with which it was paired. Of the 48 content GLEs for this grade level, about half of them were identified as somewhat aligned or matched with the 35 content TEKS.

Examples of the TEKS mathematics content that do not appear to be covered by the GLEs at this grade level include:

- approximate (mentally and with calculators) the value of irrational numbers as they arise from problem situations;
- graph dilations, reflections, and translations on a coordinate plane;
- estimate answers and use formulas to solve application problems involving surface area and volume;
- describe the resulting effect on perimeter and area when dimensions of a shape are changed proportionally; and
- select and use different models to stimulate an event.

Examples of GLEs that do not appear to be covered by the TEKS at this grade level include:

- simplify expressions involving operations on integers, grouping symbols, and whole number exponents using order of operations;
- explain and formulate generalizations

about how a change in one variable results in a change in another variable;

- construct a table of x- and y-values satisfying a linear equation and construct a graph of the line on the coordinate plane;
- predict, draw, and discuss the resulting changes in lengths, orientation, measures, and coordinates when figures are translated, reflected across horizontal or vertical lines, and rotated on a grid;
- apply concepts, properties, and relationships of adjacent, corresponding, vertical, alternate interior, complementary, and supplementary angles; and
- collect and organize data using box- and whiskers plots and use the plots to interpret quartiles and range.

There are no GLEs for the TEKS Underlying Processes and Mathematical Tools sections. The pervasive mathematical themes such as problem solving, mathematics as communication, and mathematics as numerical intuition are included in the Louisiana Mathematics Framework for all grade levels.

Assessment

Louisiana utilizes the Integrated Louisiana Educational Assessment Program (iLEAP), a norm-referenced testing program at Grades 3, 5, 6, 7, and 9. For grades 4 and 8, Louisiana employs the criterion-based Louisiana Educational Assessment Program for the 21st Century (LEAP 21). It is important to note that grade promotion criteria are part of LEAP 21 for grades 4 and 8. Texas uses the Texas Assessment of Knowledge and Skills (TAKS) to assess student performance in mathematics in Grades 3-11 with promotion and retention requirements in grades 3, 5 and 8. All GLEs and all TEKS are subject to testing at this grade level.

Coding in the Side-by-Side Analysis

The numbers in parentheses that follow the GLE statement refer to the Louisiana Mathematics Benchmark addressed. In the case of P-1-M, for example, “P” stands for Patterns, Relations, and Functions. The “1” indicates the first Benchmark for the Standard, and the “M” stands for Middle School. Benchmarks are broader statements, somewhat analogous to the Texas Knowledge and Skill statements shaded in gray in the side-by-side analysis, which are specified in Louisiana for grade ranges K-4, 5-8, and 9-12. More about Louisiana Benchmarks can be found in the following document from the Louisiana State Department of Education: <http://www.doe.state.la.us/lde/uploads/2910.pdf>.

More information about the Louisiana Grade Level Expectations is available at <http://www.doe.state.la.us/lde/ssa/1819.html>.