

Side-by-Side TEKS Comparison Highlights Grade 8

The 2012 TEKS are the student expectations adopted in 2012 and will be implemented in the 2014-2015 school year.

Supporting Information includes the following:

Student expectations that are new to the grade level are in blue and are indicated by a + in the first column.

Student expectations that are leaving the grade level are in pink and are indicated by a - in the first column.

A legend for the colors and symbols is found on the bottom of each page. The symbols aid in reading the document should it be printed in black and white.

Grade 8 – Mathematics

| Current TEKS – Number, Operation, and Quantitative Reasoning Strand | 2012 TEKS | Supporting Information |
|---|--|---|
| 8.1A Number, operation, and quantitative reasoning. The student understands that different forms of numbers are appropriate for different situations. The student is expected to compare and order rational numbers in various forms including integers, percents, and positive and negative fractions and decimals. | 8.2D Number and Operations. The student applies mathematical process standards to represent and use real numbers in a variety of forms. The student is expected to order a set of real numbers arising from mathematical and real-world contexts. | The new SE has removed the obvious restatement of rational numbers with integers, percents, and positive and negative fractions and decimals. The skill of comparing is a needed skill for ordering, so the ordering could include comparing. The new SE is an extension of the current SE related to ordering numbers. A set of numbers to be ordered may include irrational numbers. |
| + | 8.2A Number and Operations. The student applies mathematical process standards to represent and use real numbers in a variety of forms. The student is expected to extend previous knowledge of sets and subsets using a visual representation to describe relationships between sets of real numbers. | When creating sets and subsets, students need only distinguish between rational numbers and irrational numbers when considering real numbers. Students need not differentiate between transcendental real numbers and algebraic real numbers. |
| 8.1B Number, operation, and quantitative reasoning. The student understands that different forms of numbers are appropriate for different situations. The student is expected to select and use appropriate forms of rational numbers to solve real-life problems including those involving proportional relationships. | This SE has moved to seventh grade and is separated into 3 SEs: 7.3A 7.3B Proportionality 7.4D | This SE has moved to seventh grade and is separated into 3 SEs: 7.3A 7.3B Proportionality 7.4D |
| - | 8.2B Number and Operations. The student applies mathematical process standards to represent and use real numbers in a variety of forms. The student is expected to approximate the value of an irrational number, including π and square roots of numbers less than 225, and locate that rational number approximation on a number line. | Approximations are now limited to be those values that are less than $\sqrt{225}$. Though locating the rational number approximations of square roots on a number line has been added, it is not a new skill for students to place a rational number on a number line. The underlying processes and skills of the current TEKS expect students to use graphical and numeric models. A number line is such a model. This complements the ordering of real numbers in 8.2D. The use of a calculator to approximate square roots has been removed. |
| 8.1C Number, operation, and quantitative reasoning. The student understands that different forms of numbers are appropriate for different situations. The student is expected to approximate (mentally and with calculators) the value of irrational numbers as they arise from problem situations (such as π, $\sqrt{2}$). | 8.2C Number and Operations. The student applies mathematical process standards to represent and use real numbers in a variety of forms. The student is expected to convert numbers in standard decimal notation and scientific notation. | Mathematical process standard 8.1A addresses problem situations. Specificity has been added with the clarification of changing "express numbers" to "convert between". Negative exponents are part of scientific notation. The "including" statement in the original SE is redundant. |
| 8.1D Number, operation, and quantitative reasoning. The student understands that different forms of numbers are appropriate for different situations. The student is expected to express numbers in scientific notation, including negative exponents, in appropriate problem situations. | (Content that is deleted by 2012 TEKS -) | (Content that remains or is clarified in 2012 TEKS (Stay) (Addition +) (Deletion -)) |

- Clarification on mathematics vocabulary
- Clarification on added specificity
- Clarification on current TEKS that have been joined, separated, or subsumed within the 2012 TEKS
- Clarification on the intent of the TEKS
- Information about movement to another grade level
- Information about connections with the process standards

Page | 3 (Content that is deleted by 2012 TEKS -) (Content that remains or is clarified in 2012 TEKS (Stay) (Addition +) (Deletion -)) (Content that is new in 2012 TEKS +)

Student expectations that remain in the grade level are in green and are indicated by a circle in the first column.

- Content that stays in the grade level is indicated by the symbol ●.
- Content that remains with an addition is indicated by the symbol ● +.
- Content that remains with a deletion is indicated by the symbol ● -.