

FOURTH GRADE

MATH

Kindergarten through grade twelve math instruction emphasizes practices and activities that promote and integrate the eight Standards for Mathematical Practice and the Washington State Learning Standards.

Mathematical Practices:

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Instructional time should focus on these critical learning standards:

1. Use addition, subtraction, multiplication, and division to solve problems.
2. Generalize place value understanding for multi-digit whole numbers.
3. Apply understanding of fraction equivalence to order and compare fractions.
4. Write fractions as decimals and use place value to compare numbers.
5. Multiply fractions by a whole number using visual models or equations.

SCIENCE

Kindergarten through grade twelve science instruction emphasizes practices and activities that promote and integrate the eight Science and Engineering Practices and the Next Generation Science Standards. At each grade level, students develop an understanding of the physical sciences, life science, and Earth and space sciences. There is additional emphasis in incorporating student inquiry and critical thinking with STEAM (Science, Technology, Engineering, Art, and Math).

Science and Engineering Practices:

1. Asking Questions and Defining Problems
2. Developing and Using Models
3. Planning and Carrying Out Investigations
4. Analyzing and Interpreting Data
5. Using Mathematics and Computational Thinking
6. Constructing Explanations and Designing Solutions
7. Engaging in Argument from Evidence
8. Obtaining, Evaluating, and Communicating Information

Instructional time is focused on these essential questions and terms:

1. What is energy and how is it transferred? (fossil fuel, radiant energy, thermal energy, potential energy, kinetic energy, alternative energy sources: wind, solar, biomass, wave, hydroelectric)
2. How can water, ice, wind, and vegetation change the land? (erosion, geologist, tectonic plates, deposit, types of rock: igneous, metamorphic, sedimentary)
3. How do internal and external structures support the survival, growth, behavior, and reproduction of plants and animals? (adaptation, structure, ectotherm, endotherm, dissect, endoskeleton, invertebrates, vertebrate, parts of the eye: cornea, iris, lens, optic nerve, retina, parts of the brain: cerebellum, cerebrum, cortex)