

Iowa and Common Core
Fourth Grade

Fourth Grade Mathematics

➤ **Measurement And Data-**

- **Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit**
 - **4.MD.A.1.** Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table. *For example, know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36),*
 - **4.MD.A.2.** Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using number line diagrams that feature measurement scale.
 - **4.MD.A.3.** Apply the area and perimeter formulas for rectangles in real world and mathematical problems. *For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor.*

➤ **Geometry-**

- **Draw and identify lines and angles, and classify shapes by properties of their lines and angles.**
 - **4.G.A.1.** Draw points, lines, line segments, rays, angles (right, acute, obtuse) and perpendicular and parallel lines. Identify these two-dimensional figures.
 - **4.G.A.2.** Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.

Fourth Grade Science

- **Science as Inquiry-**
 - **S.3-5.SI.1 Identify and generate questions that can be answered through scientific investigations.**
 - Students ask questions that they can answer with scientific knowledge combined with their own observations.
 - **S.3-5.SI.3 Plan and conduct scientific investigations.**
 - Students should engage in systematic observation, making accurate measurements, and identifying and controlling variables.
 - Students follow appropriate safety procedures when conducting investigations.
- **Energy**
 - **4-PS3-2** Make observations to provide evidence that energy can be transferred from place to place by sound, light, heat, and electric currents.
 - **4-PS3-4** Apply scientific ideas to design, test, and refine a device that converts energy from one form to another.
- **From Molecule to Organisms: Structures & Processes-**
 - **4-LS1-1** Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.
- **Earth's Systems-**
 - **4-ESS2-1** Make observations and/or measurements to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind, or vegetation.
 - **4-ESS2-2** Analyze and interpret data from maps to describe patterns of Earth's features.
- **Earth & Human Activity**
 - **4-ESS3-1** Obtain and combine information to describe that energy and fuels are derived from natural resources and their uses affect the environment.

Fourth Grade Social Studies

➤ Behavioral Sciences-

- **SS.3-5.BS.2 Understand the influences on individual and group behavior and group decision-making.**
 - Understand that people involved in a dispute often have different points of view.
 - Understand that communicating different points of view in a dispute can often help people to find a satisfactory compromise.
- **SS.3-5.BS.3 Understand how personality and socialization impact the individual.**
 - Understand the rights and responsibilities of the individual in relation to his/her social group
- **SS.3-5.BS.5 Understand current social issues to determine how the individual formulates opinions and responds to issues**
 - Understand that the way a person views an issue reflects personal beliefs, experiences, and attitudes.

Fourth Grade English Language Arts

➤ Reading Literature-

- **Integration of Knowledge & Ideas**
 - **RL.4.9** Compare and contrast the treatment of similar themes and topics (e.g., opposition of good and evil) and patterns of events (e.g., the quest) in stories, myths, and traditional literature from different cultures.

➤ Reading Informational Texts-

- **Integration of Knowledge & Ideas**
 - **RI.4.8** Explain how an author uses reasons and evidence to support particular points in a text.
 - **RI.4.9** Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.

Fourth Grade 21st Century Skills

➤ **Civic Literacy-**

- **SS.3-5.PSCI.1 Understand the rights and responsibilities of each citizen and demonstrate the value of lifelong civic action.**
 - Understand why civic responsibility is important and know examples of civic responsibility.
 - Understand participation in civic and political life can help bring about the attainment of individual and public goals.
 - Understand opportunities for leadership and public service in the student's own classroom, school, community, state, and the nation.
 - Understand the importance of voluntarism as a characteristic of American society.

Lessons with Mathematics Standards

<i>Creating a Neighborhood Map</i>	4.MD.A.2
<i>Design & Cook with Solar Ovens</i>	4.MD.A.3 (also has Science standard)
<i>Fractal Snowflakes Formation</i>	4.G.A.1, 4.G.A.2 (also has Science standard)
<i>Making & Using Rain Gauge for Math</i>	4-MD.A.3
<i>Plants “To Dye For”</i>	4.MD.A.1

Lessons with Science Standards (Current & Next Generation)

<i>Greens & Browns of Composting</i>	4-LS1-1
<i>Guilds & Communities, Plants & People</i>	4-LS1-1
<i>How Water Evaporates from Clay</i>	S.3-5.SI.1 & S.3-5.SI.3
<i>Making a Sundial</i>	4-PS3-4, S.3-5.SI.1, S.3-5.SI.3
<i>Making an Impression</i>	S.3-5.SI.3
<i>Mapping Energy</i>	4-ESS3-1
<i>Mapping Soil, Making Soil</i>	4-ESS2-2
<i>Rainfall & Erosion-</i>	4-ESS2-1
<i>Design & Cook with Solar Ovens (Mathematics)</i>	4-PS3-4
<i>Fractal Snowflakes Formation (Mathematics)</i>	4-PS3-2
<i>Food Around the World (Social Studies)</i>	S.3-5.SI.1
<i>Water Cycle Fun!- (21st Century Skills)</i>	4-ESS3-A

Lesson with Social Studies Standards

<i>Class Conflict Resolution</i>	SS.3-5.BS.2
<i>Food Around the World</i>	SS.3-5.BS.2, SS.3-5.BS.5 (also has Science standards)
<i>Guilds & Communities, Plants & People</i>	SS.3-5.BS.2 (also has Science standard)
<i>The Best Tree to Be</i>	SS.3-5.BS.2

Lessons with English Language Arts Standards

<i>Environmental Myth</i>	RL.4.9
<i>Mapping the Route Home to School</i>	RI.4.9
<i>Native American Parfleche</i>	RI.4.9, RL.4.9
<i>Water Cycle Drama!</i>	RI.4.8, RI.4.9, RL.4.9

Lessons with 21st Century Skills Standards

<i>Citizenship Reflection</i>	SS.3-5.PSCI.1
<i>Searching for Meaning through Jigsaw Discussions</i>	SS.3-5.PSCI.1
<i>The Giving Trees</i>	SS.3-5.PSCI.1 (also has Science standard)
<i>Water Cycle Fun</i>	SS.3-5.PSCI.1