

# **WEEKLY LESSON PLANS: 4<sup>th</sup> GRADE SCIENCE**

## **YEAR AT A GLANCE PLANNING TOOL**

**CREATED BY ELEMENTARY ALI  
TEACHER'S WORKSTATION**

# WEEKLY LESSON PLANS: 4<sup>th</sup> GRADE SCIENCE

| Week | Unit                    | Standard(S)   |
|------|-------------------------|---|
| 1    | Nature of Science       |   |
| 2    | Matter and Energy       | 5(A) measure, compare, and contrast physical properties of matter, including size, mass, volume, states (solid, liquid, gas), temperature, magnetism, and the ability to sink or float;   |
| 3    | Matter and Energy       | (B) predict the changes caused by heating and cooling such as ice becoming liquid water and condensation forming on the outside of a glass of ice water; and  |
| 4    | Matter and Energy       | (C) compare and contrast a variety of mixtures and solutions such as rocks in sand, sand in water, or sugar in water.   |
| 5    | Matter and Energy       | <b>Unit Test</b>  |
| 6    | Force, Matter, & Energy | 6(A) differentiate among forms of energy, including mechanical, sound, electrical, light, and heat/thermal;   |
| 7    | Force, Matter, & Energy | (C) demonstrate that electricity travels in a closed path, creating an electrical circuit, and explore an electromagnetic field; and  |
| 8    | Force, Matter, & Energy | (B) differentiate between conductors and insulators;<br><b>4-PS3-2. Make observations to provide evidence that energy can be transferred from place to place by sound, light, heat, and electric currents.</b><br><b>4-PS3-4. Apply scientific ideas to design, test, and refine a device that converts energy from one form to another.*</b>                           |
| 9    | Force, Matter, & Energy | (D) design an experiment to test the effect of force on an object such as a push or a pull, gravity, friction, or magnetism.<br><b>4-PS3-1 Use evidence to construct an explanation relating the speed of an object to the energy of that object.</b><br><b>4-PS3-3 Ask questions and predict outcomes about the changes in energy that occur when objects collide.</b> |
| 10   | Force, Matter, & Energy | <b>Unit Test</b>  |

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|------|-------------------------------|--|
| 11   | Earth and Space:<br>Resources | 7(A) examine properties of soils, including color and texture, capacity to retain water, and ability to support the growth of plants;  |
| 12   | Earth and Space:<br>Resources | 4-ESS2-2 Analyze and interpret data from maps to describe patterns of Earth's features. (Landforms)  |
| 13   | Earth and Space:<br>Resources | (B) observe and identify slow changes to Earth's surface caused by weathering, erosion, and deposition from water, wind, and ice; and<br>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.<br>4-ESS3-2 Generate and compare multiple solutions to reduce the impacts of natural Earth processes on humans.* |
| 14   | Earth and Space:<br>Resources | (C) identify and classify Earth's renewable resources, including air, plants, water, and animals; and nonrenewable resources, including coal, oil, and natural gas; and the importance of conservation.<br>4-ESS3-1 Obtain and combine information to describe that energy and fuels are derived from natural resources and their uses affect the environment  |
| 15   | Earth and Space:<br>Resources | 4-ESS1-1. Identify evidence from patterns in rock formations and fossils in rock layers to support an explanation for changes in a landscape over time.  |
| 16   | Earth and Space:<br>Patterns  | <b>Unit Test</b>   |
| 17   | Earth and Space:<br>Patterns  | 8(A) measure and record changes in weather and make predictions using weather maps, weather symbols, and a map key;<br>(B) describe and illustrate the continuous movement of water above and on the surface of Earth through the water cycle and explain the role of the Sun as a major source of energy in this process; and   |
| 18   | Earth and Space:<br>Patterns  | (C) collect and analyze data to identify sequences and predict patterns of change in shadows, tides, seasons, and the observable appearance of the Moon over time. (Tides and Seasons)   |
| 20   | Earth and Space:<br>Patterns  | (C) collect and analyze data to identify sequences and predict patterns of change in shadows, tides, seasons, and the observable appearance of the Moon over time. (Moon)  |

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|------|--|---|
| 21   | Earth and Space: Patterns              | (D) design an experiment to test the effect of force on an object such as a push or a pull, gravity, friction, or magnetism.<br>4-PS3-1 Use evidence to construct an explanation relating the speed of an object to the energy of that object.<br>4-PS3-3 Ask questions and predict outcomes about the changes in energy that occur when objects collide. |
| 22   | Earth and Space: Patterns              | <b>Unit Test</b>  |
| 23   | Organisms and Environments: Ecosystems | 9(A) investigate that most producers need sunlight, water, and carbon dioxide to make their own food, while consumers are dependent on other organisms for food; and  |
| 24   | Organisms and Environments: Ecosystems | (B) describe the flow of energy through food webs, beginning with the Sun, and predict how changes in the ecosystem affect the food web such as a fire in a forest.   |
| 25   | Organisms and Environments: Ecosystems | <b>Unit Test</b>  |
| 26   | Organisms and Environments: Organisms  | (A) explore how adaptations enable organisms to survive in their environment such as comparing birds' beaks and leaves on plants;<br>4-LS1-1 Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.   |
| 27   | Organisms and Environments: Organisms  | (B) demonstrate that some likenesses between parents and offspring are inherited, passed from generation to generation such as eye color in humans or shapes of leaves in plants. Other likenesses are learned such as table manners or reading a book and seals balancing balls on their noses; and  |
| 28   | Organisms and Environments: Organisms  | (C) explore, illustrate, and compare life cycles in living organisms such as butterflies, beetles, radishes, or lima beans.   |
| 29   | Organisms and Environments: Organisms  | 4-LS1-2 Use a model to describe that animals receive different types of information through their senses, process the information in their brain, and respond to the information in different ways.   |
| 30   | Organisms and Environments: Organisms  | <b>Unit Test</b>  |

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|------|---------------------------------|---|
| 30   | 4 <sup>th</sup> Review Stations | The next 6 weeks are planned for review and STEM enrichment. It will also give you wiggle room for any weeks that end up taking longer than planned throughout the school year. |
| 31   | 4 <sup>th</sup> Review Stations |   |
| 32   | End of the Year Racecar Derby   |   |
| 33   | End of the Year Racecar Derby   |   |
| 34   | End of the Year Racecar Derby   |   |
| 35   |                                 | The last two weeks are left unplanned to account for End of the Year Activities and Assemblies.   |
| 36   |                                 |   |

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