



Louisiana Student Standards for
Science
Grade 5



Inspire
Science

Grade 5 Version 2

© 2017

Page References: SN= Student
Notebook, TE = Teacher Edition.

STANDARDS	MODULE - LESSON
MATTER AND ITS INTERACTIONS	
<p>5-PS1-1. Develop a model to describe that matter is made of particles too small to be seen.</p> <p>Clarification Statement Examples of evidence could include adding air to expand a basketball, compressing air in a syringe, dissolving sugar in water, or evaporating salt water. Does not include atomic scale mechanism of evaporation and condensation or defining the unseen particles.</p>	<p>MODULE -Structure and Properties of Matter – Lesson 1 – Matter’s Structure Explore Inquiry Activity: Compare Objects (SN: 7-8, TE:6-7) Evaluate Performance Task: Modeling Matter (SN: 16-18, TE: 17-18) Science Handbook – Observing and Measuring Matter p. 260-261</p>
STANDARDS	MODULE - LESSON
<p>5-PS1-2. Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total amount of matter is conserved.</p> <p>Clarification Statement Examples of chemical changes includes reactions that produce new substances with new properties. Examples of physical changes could include phase changes, dissolving, or mixing.</p>	<p>MODULE – Physical and Chemical Changes – Lesson 1- Physical Changes Explore Inquiry Activity: Frozen or Unfrozen (SN: 55-56, TE: 57-58) Explain Online Simulation: Particles in Matter (SN: 59-60, TE: 63) (www.connected.mcgraw-hill.com)</p> <p>Lesson 2 – Mixtures and Solutions Explore Inquiry Activity: Solubility Solutions (SN: 69-70, TE: 71-72) Explain Online Simulation – Mixtures in Action (SN: 73, TE: 74) (www.connected.mcgraw-hill.com) Evaluate Performance Task – Making Mixtures (SN: 76-78, TE: 78-79)</p> <p>Lesson 3 – Chemical Changes Explore Inquiry Activity – Conservation of Mass (SN: 83-84, TE: 83-84) Evaluate Performance Task – Changes in Matter (SN: 91-92, TE: 91-92)</p> <p>Module Wrap-Up Performance Project – Plan Your Own Procedure (SN: 94-95, TE: 94-95) Science Handbook – Changes in Matter p. 266-267, Mixtures p. 268-269, Chemical Changes p. 272-273)</p>

<p>5-PS1-3. Make observations and measurements to identify materials based on their properties.</p> <p>Clarification Statement</p> <p>Examples of materials to be identified could include baking soda and other powders, metals, minerals, or liquids. Examples of properties could include color, hardness, reflectivity, electrical conductivity, thermal conductivity, response to magnetic forces, or solubility; density is not intended to be used as an identifiable property. No attempt is made to define the unseen particles or explain the atomic-scale mechanism of evaporation and condensation.</p>	<p>MODULE – Structure and Properties of Matter – Lesson 2 – Matter’s Properties</p> <p>Explore Inquiry Activity – What’s Inside Matter? (SN: 23-24, TE: 23-24)</p> <p>Evaluate Performance Task – Testing Matter’s Properties (SN: 31-32, TE: 31-32)</p> <p>Lesson 3 – Metals and Nonmetals</p> <p>Explore Inquiry Activity – Metal or Not? (SNL 37-38, TE: 36-37)</p> <p>Science Handbook – Matter p. 252-261</p>
<p>5-PS1-4. Conduct an investigation to determine whether the mixing of two or more substances results in new substances.</p> <p>Clarification Statement</p> <p>Examples of interactions forming new substances can include mixing baking soda and vinegar. Examples of interactions not forming new substances can include mixing baking soda and water.</p>	<p>MODULE – Physical and Chemical Changes – Lesson 2 – Mixtures and Solutions</p> <p>Elaborate Inquiry Activity – Separating Mixtures (SN: 74-75, TE: 76-77)</p> <p>Lesson 3 – Chemical Changes</p> <p>Evaluate Performance Task – Changes in Matter (SN: 91-92, TE: 91-93)</p> <p>Science Handbook – Changes in Matter p. 266-271, Chemical Changes 272-273</p>
<p>MOTION AND STABILITY: FORCES AND INTERACTIONS</p>	
<p>5-PS2-1 Support an argument that the gravitational force exerted by the Earth is directed down.</p> <p>Clarification Statement</p> <p>“Down” is a local description of the direction that points toward the center of the spherical Earth. Earth’s mass causes objects to have a force on them that points toward the center of the Earth, “down”. Support for arguments can be drawn from diagrams, evidence, and data that are provided. This does not include mathematical representation of gravitational force.</p>	<p>MODULE – The Solar System and Beyond – Lesson 1 – Movements of the Sun, Earth and the Moon</p> <p>Explain Inquiry Activity – The Role of Gravity (SN: 272-274, TE: 276)</p> <p>MODULE – The Solar System and Beyond – Lesson 3 – Objects in Space</p> <p>Explain Reflect and Refine – Earth’s Gravity (TE: 307)</p> <p>Student Handbook – Measure Weight p. 35, Erosion and Deposition by Gravity p. 166, Gravity in the Solar System p. 222-223 Force-Gravity p. 286</p>

STANDARDS	MODULE - LESSON
<p>5-PS3-1. Use models to describe that energy in animals' food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the sun.</p> <p>Clarification Statement Examples of models could include diagrams or flowcharts.</p>	<p>MODULE – Plant and Animal Needs – Lesson 2 – Animals and Cellular Respiration Explore Inquiry Activity – Food and Respiration (SN: 113-114, TE: 115-116)</p> <p>Lesson 3 – Plants and Cellular Respiration Evaluate Performance Task- How Plants Use Energy (SN: 135-136, TE: 138-139)</p> <p>MODULE – Matter in Ecosystems – Lesson 1 – Interactions of Living Things Explain Digital Interactive – Energy Flow in a Food Chain (SN:149, TE: 152) Explain Model of a Food Chain (SN: 150, TE:153) Evaluate Performance Task – Build a Food Web (SN: 153-154, TE: 156)</p> <p>Science Handbook – Getting and Using Energy p. 48-51, Food Chains/Food Webs p. 102-103</p>
FROM MOLECULES TO ORGANISMS: STRUCTURES AND PROCESSES	
<p>5-LS1-1. Ask questions about how air and water affect the growth of plants.</p> <p>Clarification Statement Emphasis is on the idea that plant matter comes mostly from air and water, not from the soil. The chemical processes of photosynthesis and cellular respiration are not addressed at this grade level.</p>	<p>MODULE – Plant and Animal Needs- Lesson 1 – Plants and Photosynthesis Explore Inquiry Activity – Virtual Plant Simulation (SN: 101, TE 101-102) (www.connected.mcgraw-hill.com)</p> <p>Elaborate Inquiry Activity – Plant Investigation (SN: 106, TE: 108-109)</p> <p>Evaluate Performance Task – Solution for Survival (SN: 107-108), TE: 110)</p> <p>Explain Quick Check Infer (TE: 106)</p> <p>Module Wrap-Up Performance Project – With our Without Soil (SN: 138-139, TE: 140-141)</p> <p>Science Handbook – Photosynthesis p. 48-49, Plant Cells p. 54-55, Plant Needs p. 62-63)</p>
<p>5-LS2-1. Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.</p> <p>Clarification Statement Emphasis is on the idea that matter that is not food (air, water, decomposed materials in soil) is changed by plants into matter that is food. Examples of systems could include organisms, ecosystems of the Earth not including molecular explanations.</p>	<p>MODULE – Matter in Ecosystems – Lesson 3 – Cycles in Ecosystems Explore Inquiry Activity – Cycling Matter (SN: 175-176, TE: 177-178)</p> <p>Evaluate Performance Task – Plan a Terrarium (SN: 183-184, TE: 187-188)</p> <p>Science Handbook – Nitrogen Cycle p. 98-99, Oxygen-Carbon Dioxide Cycle p. 100, The Water Cycle p. 100, Food Chains p. 102, Food Webs p. 103</p>

STANDARDS	MODULE - LESSON
EARTH'S PLACE IN THE UNIVERSE	
<p>5-ESS1-1. Support an argument that differences in the apparent brightness of the sun compared to other stars is due to their relative distances from the Earth.</p> <p>Clarification Statement Examples include the relative distances of the stars, but not the sizes. It does not include other factors that affect apparent brightness (such as stellar masses, age, stage).</p>	<p>MODULE- The Solar System and Beyond – Lesson 4 – Stars and Star Patterns Explore Inquiry Activity – Star Brightness (SN: 313-314, TE: 314-315) Evaluate Performance Task – Model a Constellation (SN: 320, TE: 322) Science Handbook – Stars p. 238-239, Our Star, the Sun p. 246-247</p>
<p>5-ESS1-2. Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky.</p> <p>Clarification Statement Patterns could include the position and motion of Earth with respect to the sun and selected stars that are visible only in particular months; not including the causes of the seasons.</p>	<p>MODULE – The Solar System and Beyond – Lesson 1 – Movements of the Sun, Earth and the Moon Explore Inquiry Activity – Shadow Measurements (SN: 269-270, TE: 273-274) Lesson 2 – Patterns of the Moon Explore Inquiry Activity – Moon Phases (SN: 285-286, TE: 286-287) Evaluate Performance Task – Phases of the Moon (SN: 293-294, TE: 295-296) Lesson 4 – Stars and Star Patterns Explain Digital Interactive – Constellations (TE: 318)(www.connected.mcgraw-hill.com) Explain Reflect and Refine – Constellations (TE: 320) Module Wrap-Up Performance Project – Modeling Space Objects (SN: 322-323, TE: 324-325) Science Handbook – Earth in Space p. 230-235, Constellations p. 244-245</p>

EARTH'S SYSTEMS

5-ESS2-1 Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.

Clarification Statement

Examples could include the influence of the ocean on ecosystems, landform shape, and climate; the influence of the atmosphere on landforms and ecosystems through weather and climate; and the influence of mountain ranges on winds and clouds in the atmosphere. The geosphere, hydrosphere, atmosphere, and biosphere are each a system.

MODULE – Interactions of Earth’s Major Systems – Lesson 1 – Earth’s Major Systems

Evaluate Performance Task – Earth’s Systems Poster (SN:199-192, TE: 205-206)

Lesson 2 – Effects of the Geosphere

Elaborate Inquiry Activity – Landform Models Part 2 (SN: 212-213, TE: 219-220)

Evaluate Performance Task – Rain Shadow (SN: 214-216, TE: 221-222)

Lesson 4 – Effects of the Atmosphere

Explain Online Simulation – The Water Cycle (SN: 240, TE: 245) (www.connected.mcgraw-hill.com)

Evaluate Performance Task – Water Cycle Model (SN: 245-246, TE: 250)

Module Wrap-Up

Performance Project – Plan a Planet (SN: 262-263, TE: 266-267)

Science Handbook – Earth’s Systems p. 138-139, Earth’s Changing Surface p. 162-171

STANDARDS

5-ESS2-2. Describe and graph the amounts and percentages of water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth.

Clarification Statement

Examples include oceans, lakes, rivers, glaciers, ground water, and polar ice caps.

MODULE - LESSON

MODULE- Interactions of Earth’s Major Systems – Lesson 3 – Effects of the Hydrosphere

Evaluate Performance Task – Where Water is Found (SN: 230-232, TE: 237-238)

Science Handbook – Earth’s Water p. 154-157, The Water Cycle p. 186-187

EARTH AND HUMAN ACTIVITY

5-ESS3-1. Generate and compare multiple solutions about ways individual communities can use science to protect the Earth's resources and environment.

Clarification Statement

Examples of solutions can include cleanup of oil spills, protecting against coastal erosion, or prevention of polluted runoff into waterways.

MODULE – Matter in Ecosystems – Lesson 2 Balance in Ecosystems

Explore Inquiry Activity – Overfishing Simulation and Overfishing Simulation revisit (SN: 159-160, 168, TE: 161-162, 171-172)

Evaluate Performance Task – Solve for an Invasive Species (SN: 169-170, TE: 172-173)

Module Wrap-Up

Performance Project – Composting at Home (SN: 186-187, TE: 190-191)

MODULE – Interactions of Earth's Major Systems – Lesson 3 – Effects of the Hydrosphere

Explore Inquiry Activity – Using Water (SN: 221-222, TE: 226-227)

Lesson 5 – Effects of the Biosphere

Explore Inquiry Activity – Mining Cookies (SN: 251-252, TE: 255)

Explain – Pollution in Earth's Systems (SN: 254, TE: 257)

Elaborate Inquiry Activity – Effects of Acid Rain (SN: 257-258, TE: 261-261)

Evaluate Performance Task – Human Impact Research Project (SN: 259-260, TE: 263-264)

Evaluate S.O.S. Save Our Spheres Online Game (TE: 263) (www.connected.mcgraw-hill.com)

Science Handbook – Resources in Ecosystems p. 97, Invasive Species p. 107, Humans and the Environment p. 126-135, Fossil Fuels p. 218-219, Technology and Engineering p. 348-351