

Science 4th grade

Next Generation Science Standards

- 4-PS3 Energy
- 4-PS4 Waves and Their Applications in Technologies for Information Transfer
- 4-LS1 From Molecules to Organisms: Structures and Processes
- 4-ESS1 Earth’s Place in the Universe
- 4-ESS2 Earth’s Systems
- 4-ESS3 Earth and Human Activity
- 3-5-ETS1 Engineering Design

Technology

SMART Board, Elmo, computer, iPads, Britannica School

Standards	Essential Questions	Content	Skills	Assessment	Resources
Scientific Method 3-5-ETS1	Scientific Method How do scientists work and solve problems?	Scientific Method -Question -Hypothesis -Experiment -Conclusion	Scientific Method -Make observations and pose questions about scientific topic -Predict outcome of experiment -Create an experiment -Record and chart observations -Draw conclusion and communicate results -Compare conclusion to hypothesis and ask questions	Scientific Method -TBD	Scientific Method - <i>Science: A Closer Look</i> Grade 4 by Macmillan/McGraw-Hill (2011) - <i>National Geographic</i> by National Geographic
Living Things 4-LS1	Living Things How are plants and animals alike and different?	Living Things -Plant and animal structures and functions	Living Things -Compare and contrast structures and functions of plants and animals -Understand plant and animal growth, survival, behaviors, and reproduction	Living Things -TBD	Living Things - <i>Science: A Closer Look</i> Grade 4 by Macmillan/McGraw-Hill (2011) - <i>National Geographic</i> by National Geographic

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Standards	Essential Questions	Content	Skills	Assessment	Resources
Earth 4-ESS1 4-ESS2 4-ESS3	Earth How can Earth’s crust change? How do different forces shape and change Earth’s landforms? How can fossil fuels be conserved?	Earth -Rock formations -Layers of the Earth -Types of rock -Fossils -Rock cycle -Earthquake -Volcano -Tsunami -Natural hazard human impact -Plate tectonics -Erosion and weathering Natural resources: -Energy and fuels -Renewable and non-renewable -Conservation	Earth -Understand how rock layers record the history of the Earth -Explain how the rock cycle, erosion and weathering affect rock formations -Explain how plate tectonics cause natural hazards that shape the Earth -Understand how humans can reduce the impact of natural hazards -Learn ways to conserve natural resources	Earth -Foldables -Diagrams labeled - <i>Science: A Closer Look</i> worksheets by Macmillan/McGraw-Hill (2011)	Earth - <i>Science: A Closer Look</i> Grade 4 by Macmillan/McGraw-Hill (2011) - <i>National Geographic</i> by National Geographic
Energy 4-PS3 4-PS4	Energy How is energy used? How is energy transferred?	Energy -Heat -Sound -Light -Electric currents -Transfer -Waves	Energy -Explain how heat transfers -Explain production and characteristics of sound -Describe how light travels -Explain how energy is transferred -Understand the parts of waves and how they relate to energy	Energy - <i>Science: A Closer Look</i> worksheets by Macmillan/McGraw-Hill (2011)	Energy - <i>Science: A Closer Look</i> Grade 4 by Macmillan/McGraw-Hill (2011) - <i>National Geographic</i> by National Geographic