

**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, Chromebooks, YouTube, Quizlet, SchoolTube : Bill Nye, DK Eyewitness DVDs

Standards	Essential Questions	Content	Skills	Assessment	Resources
<b>Scientific Method</b> 3-5-ETS1	<b>Scientific Method</b> How do scientists work and solve problems?	<b>Scientific Method</b> -Question -Hypothesis -Experiment -Conclusion	<b>Scientific Method</b> -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	<b>Scientific Method</b> -Teacher observations -Worksheets -Charting	<b>Scientific Method</b> - <i>Science Fusion</i> by Houghton Mifflin Harcourt (2012)
<b>Living Things</b> 4-LS1	<b>Living Things</b> How are plants and animals alike and different?	<b>Living Things</b> -Plant and animal structures and functions	<b>Living Things</b> -Compare and contrast structures and functions of plants and animals -Understand plant and animal growth, survival, behaviors, and reproduction	<b>Living Things</b> -Teacher observations -Test -Worksheets	<b>Living Things</b> - <i>Science Fusion</i> by Houghton Mifflin Harcourt (2012)

Science 4<sup>th</sup> grade

Standards	Essential Questions	Content	Skills	Assessment	Resources
<b>Earth</b> 4-ESS1 4-ESS2 4-ESS3	<b>Earth</b> How can Earth's crust change?  How do different forces shape and change Earth's landforms?  How can fossil fuels be conserved?	<b>Earth</b> -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	<b>Earth</b> -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	<b>Earth</b> -Test -Worksheets	<b>Earth</b> - <i>Science Fusion</i> by Houghton Mifflin Harcourt (2012) -Booklet (teacher created)
<b>Energy</b> 4-PS3 4-PS4	<b>Energy</b> How is energy used?  How is energy transferred?	<b>Energy</b> -Heat -Sound -Light -Electric currents -Transfer -Waves	<b>Energy</b> -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	<b>Energy</b> -Teacher observations -Hands-on activities -Test -Worksheets	<b>Energy</b> - <i>Science Fusion</i> by Houghton Mifflin Harcourt (2012) -Activity kits