

Level Four Science

Scientific Investigation

	Sample Activity No.
Questioning Strategies	
Demonstrate scientific inquiry and problem solving by using questioning and reasoning strategies.	519, 140, 142
Simple Experiments	
Design and conduct simple experiments by asking a scientific question, stating hypothesis, listing procedure, recording results and conclusion.	143
Displaying Data	
State results of scientific investigations by using accurate data on graphs, tables, drawings, etc.	565
Long-Term Investigations	
Conduct long-term investigation; keep records of investigation and observations, and state conclusion.	521, 550

Changes in Matter and Energy

Measurement

Measure dimensions, weight, and volume of objects, and conclude that objects can be classified by these common properties.	716, 340
Measure temperature, conductivity, and solubility of objects, and conclude that objects can be classified by these common properties.	344, 721

Physical Changes in Matter

Illustrate physical changes in matter.	723, 350
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Chemical Changes in Matter

Illustrate chemical changes in matter.	352, 736
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Distinguish Types of Change

Distinguish between physical and chemical changes in matter.	744, 359
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Heat as Energy

Recognize and describe heat as a form of energy.	365
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Flow of Energy

Explain and trace the flow of energy in a system.	751
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Sources of Energy for Life

Identify sources of energy that organisms need to stay alive and grow.	746, 372
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Machines Effect on Force

Use simple machines to experiment with the effects of force and motion.	747, 381
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Force to an Object

Observe that when a force is applied to an object, the object speeds up, slows down, or changes direction.	771, 769
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Sound

Basic Principles of Sound

Identify the basic physical phenomena of sound.	719, 332
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Sounds of Music

Identify by sight and sound instruments from brass, woodwind, string, and percussion families.	40857, 40892
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Solar System and the Universe

Formation of Rocks

Identify physical characteristics and formation of igneous, metamorphic, and sedimentary rocks.	399, 447
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Composition of Rocks

Understand that rocks are composed of different combinations of minerals.	446
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Composition of Soil

Describe the composition and properties of soil.	448
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Earth's Natural Resources

Recognize Earth's natural resources, and how they interact with each other.	752, 467
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continued

Solar System and the Universe

	Sample Activity No.
People/Earth's Interaction	
Recognize ways in which people interact with Earth's natural resources.	232
Systems of the Universe	
Identify different systems that are found in our universe.	725, 180, 40802
Arrangement of Planets	
Understand the arrangement of planets in our solar system.	185, 183, 40799
Mercury	
Learn about planet Mercury and classify the planets according to size, characteristics, and composition.	40804, 724, 188
Venus	
Learn about planet Venus and classify the planets according to size, characteristics, and composition.	40810, 728, 189
Earth	
Learn about planet Earth and classify the planets according to size, characteristics, and composition.	201, 729
Mars	
Learn about planet Mars and classify the planets according to size, characteristics, and composition.	40803, 733, 202
Jupiter	
Learn about planet Jupiter and classify the planets according to size, characteristics, and composition.	40807, 735, 203
Saturn	
Learn about planet Saturn and classify the planets according to size, characteristics, and composition.	40805, 731, 204
Uranus	
Learn about planet Uranus and classify the planets according to size, characteristics, and composition.	40806, 730, 205
Neptune	
Learn about planet Neptune and classify the planets according to size, characteristics, and composition.	40808, 742, 206
Pluto	
Learn about the planet Pluto and classify the planets according to size, characteristics, and composition.	776, 207, 40809
Naming of Planets	
Investigate the process of how planets are named in our solar system.	40797, 208
Asteroids	
Learn about asteroids and identify other bodies in space.	210, 739
Comets	
Learn about comets and identify other bodies in space.	211, 758
Meteoroids	
Learn about meteoroids and identify other bodies in space.	212, 775
Satellites	
Investigate how satellites are used to gather information about Earth.	190, 778
Sun as a Star	
Learn that the Sun is a star and its energy can be captured and used for work on Earth.	184, 740
Earth/Sun/Moon Movement	
Demonstrate that the Earth's movement around the Sun and the Moon's movement around the Earth produce the Moon's cyclical phases.	782, 410
Effects of Earth Movements	
Explain how the change of seasons, length of day, and amount of available solar energy depend on the Earth's orbit around the Sun, Earth's own rotation, and the tilt of the Earth's axis.	431, 783

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Living Things

Life Cycle

Sample Activity No.

Explain the growth and life cycle of living things.686, 304

Body Systems

Recognize that the human body contains systems with highly interdependent structures and functions.40801, 780, 166, 40811, 40813, 40814, 40815

Vertebrates and Invertebrates

Classify vertebrates and invertebrates according to their characteristics.40798, 539, 231

Ecosystems

Illustrate an ecosystem, and discuss interactions of all things within it.162, 734, 236, 240, 228

Life and Environment Interact

Discuss requirements for plant and animal survival in different environments, and learn that size of a population depends on environmental resources available.643, 263

Food Web

Explain relationships in a food web, and provide illustrative examples.260, 741

Plants in the Food Web

Illustrate the function of plants in the food web.631, 261

Consumers in a Food Web

Identify the different types of consumers in a food web.644

Man Threatens Environment

Identify some man-made threats to the environment.241, 685

Changes in Ecosystems

Discuss how changes in an ecosystem may be harmful, beneficial, or both.473, 474

Protecting Natural Systems

Recognize that there is a need to protect the natural systems of Earth.283, 262

Recycling

Explain how recycling used materials and reducing use of natural resources protects the quality of life on Earth.497, 498

