

Science Grade 1

Adams County/Ohio Valley
Course of Study

Content Standard: Earth and Space

Benchmark: None

Content Organizer: Earth Systems

Grade-level Indicator	Instructional Activities/Strategies	Resources	Assessment
1. Identify that resources are things that we get from the living (e.g., forests) and nonliving (e.g., minerals, water) environment and that resources are necessary to meet the needs and wants of a population.			

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Adams County/Ohio Valley
Course of Study

Content Standard: Earth and Space
Benchmark: None
Content Organizer: Earth Systems

Grade-level Indicator	Instructional Activities/Strategies	Resources	Assessment
2. Explain that the supply of many resources is limited but the supply can be extended through careful use, decreased use, reusing and/or recycling.			

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Content Standard: Earth and Space			
Benchmark B: Explain that living things cause changes on Earth.			
Content Organizer: Processes That Shape Earth			
Grade-level Indicator	Instructional Activities/Strategies	Resources	Assessment
3. Explain that all organisms cause changes in the environment where they live; the changes can be very noticeable or slightly noticeable, fast or slow (e.g., spread of grass cover slowing soil erosion, tree roots slowly breaking sidewalks).			

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Content Standard: Life Sciences			
Benchmark A: Discover that there are living things, non-living things and pretend things, and describe the basic needs of living things (organisms)			
Content Organizer: Characteristics and Structure of Life			
Grade-level Indicator	Instructional Activities/Strategies	Resources	Assessment
1. Explore that organisms, including people, have basic needs which include air, water, food, living space and shelter.			

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Content Standard: Life Sciences			
Benchmark B: Explain how organisms function and interact with their physical environment.			
Content Organizer: Characteristics and Structure of Life			
Grade-level Indicator	Instructional Activities/Strategies	Resources	Assessment
2. Explain that food comes from sources other than grocery stores (e.g., farm crops, farm animals, oceans, lakes and forests).			

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Content Standard: Life Sciences			
Benchmark B: Explain how organisms function and interact with their physical environment.			
Content Organizer: Characteristics and Structure of Life			
Grade-level Indicator	Instructional Activities/Strategies	Resources	Assessment
3. Explore that humans and other animals have body parts that help to seek, find and take in food when they are hungry (e.g., sharp teeth, flat teeth, good nose and sharp vision).			

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Content Standard: Life Sciences
Benchmark A: Discover that there are living things, non-living things and pretend things, and describe the basic needs of living things (organisms)
Content Organizer: Diversity and Interdependence of Life

Grade-level Indicator	Instructional Activities/Strategies	Resources	Assessment
4. Investigate that animals eat plants and/or other animals for food and may also use plants or other animals for shelter and nesting.			

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Content Standard: Life Sciences
Benchmark B: Explain how organisms function and interact with their physical environment.
Content Organizer: Diversity and Interdependence of Life

Grade-level Indicator	Instructional Activities/Strategies	Resources	Assessment
5. Recognize that seasonal changes can influence the health, survival or activities of organisms.			

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Adams County/Ohio Valley
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Content Standard: Physical Sciences
Benchmark A: Discover that many objects are made of parts that have different characteristics. Describe these characteristics and recognize ways an object may change.
Content Organizer: Nature of Matter

Grade-level Indicator	Instructional Activities/Strategies	Resources	Assessment
1. Classify objects according to the materials they are made of and their physical properties.			

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Adams County/Ohio Valley
Course of Study

Content Standard: Physical Sciences
Benchmark A: Discover that many objects are made of parts that have different characteristics. Describe these characteristics and recognize ways an object may change.
Content Organizer: : Nature of Matter

Grade-level Indicator	Instructional Activities/Strategies	Resources	Assessment
2. Investigate that water can change from liquid to solid or solid to liquid.			

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Content Standard: Physical Sciences
Benchmark A: Discover that many objects are made of parts that have different characteristics. Describe these characteristics and recognize ways an object may change.
Content Organizer: : Nature of Matter

Grade-level Indicator	Instructional Activities/Strategies	Resources	Assessment
3. Explore and observe that things can be done to materials to change their properties (e.g., heating, freezing, mixing, cutting, wetting, dissolving, bending and exposing to light).			

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Adams County/Ohio Valley
Course of Study

Content Standard: Physical Sciences
Benchmark A: Discover that many objects are made of parts that have different characteristics. Describe these characteristics and recognize ways an object may change.
Content Organizer: : Forces and Motion

Grade-level Indicator	Instructional Activities/Strategies	Resources	Assessment
4. Explore changes that greatly change the properties of an object (e.g., burning paper) and changes that leave the properties largely unchanged (e.g., tearing paper).			

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Content Standard: Physical Sciences			
Benchmark B: Recognize that light, sound and objects move in different ways.			
Content Organizer: : Forces and Motion			
Grade-level Indicator	Instructional Activities/Strategies	Resources	Assessment
5. Explore the effects some objects have on others even when the two objects might not touch (e.g., magnets).			

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Adams County/Ohio Valley
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Content Standard: Physical Sciences			
Benchmark B: Recognize that light, sound and objects move in different ways.			
Content Organizer: : Forces and Motion			
Grade-level Indicator	Instructional Activities/Strategies	Resources	Assessment
6. Investigate a variety of ways to make things move and what causes them to change speed, direction and/or stop.			

Science Grade 1

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Content Standard: Physical Sciences			
Benchmark C: Recognize sources of energy and their uses.			
Content Organizer: : Nature of Energy			
Grade-level Indicator	Instructional Activities/Strategies	Resources	Assessment
7. Explore how energy makes things work (e.g., batteries in a toy and electricity turning fan blades).			

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Adams County/Ohio Valley
Course of Study

Content Standard: Physical Science			
Benchmark C: Recognize sources of energy and their uses.			
Content Organizer: : Nature of Energy			
Grade-level Indicator	Instructional Activities/Strategies	Resources	Assessment
8. Recognize that the sun is an energy source that warms the land, air and water.			

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Content Standard: Physical Sciences			
Benchmark C: Recognize sources of energy and their uses.			
Content Organizer: : Nature of Energy			
Grade-level Indicator	Instructional Activities/Strategies	Resources	Assessment
9. Describe that energy can be obtained from many sources in many ways (e.g., food, gasoline, electricity or batteries).			

Science Grade 1

Adams County/Ohio Valley
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Content Standard: Science and Technology
Benchmark A: Explain why people, when building or making something, need to determine what it will be made of, how it will affect other people and the environment.
Content Organizer: : Understanding Technology

Grade-level Indicator	Instructional Activities/Strategies	Resources	Assessment
1. Explore that some kinds of materials are better suited than others for making something new (e.g., the building materials used in the Three Little Pigs).			

Science Grade 1

Adams County/Ohio Valley
Course of Study

Content Standard: Science and Technology
Benchmark B: Explain that to construct something requires planning, communication, problem solving and tools.
Content Organizer: : Understanding Technology

Grade-level Indicator	Instructional Activities/Strategies	Resources	Assessment
2. Explain that when trying to build something or get something to work better, it helps to follow directions and ask someone who has done it before.			

Science Grade 1

Adams County/Ohio Valley
Course of Study

Content Standard: Science and Technology
Benchmark A: Explain why people, when building or making something, need to determine what it will be made of, how it will affect other people and the environment.
Content Organizer: : Understanding Technology

Grade-level Indicator	Instructional Activities/Strategies	Resources	Assessment
3. Identify some materials that can be saved for community recycling projects (e.g., newspapers, glass and aluminum).			

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Adams County/Ohio Valley
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Content Standard: Science and Technology
Benchmark A: Explain why people, when building or making something, need to determine what it will be made of, how it will affect other people and the environment.
Content Organizer: : Understanding Technology

Grade-level Indicator	Instructional Activities/Strategies	Resources	Assessment
4. Explore ways people use energy to cook their food and warm their homes (e.g., wood, coal, natural gas and electricity).			

Science Grade 1

Adams County/Ohio Valley
Course of Study

Content Standard: Science and Technology
Benchmark A: Explain why people, when building or making something, need to determine what it will be made of, how it will affect other people and the environment.
Content Organizer: : Understanding Technology

Grade-level Indicator	Instructional Activities/Strategies	Resources	Assessment
5. Identify how people can save energy by turning things off when they are not using them (e.g., lights and motors).			

Science Grade 1

Adams County/Ohio Valley
Course of Study

Content Standard: Science and Technology			
Benchmark B: Explain that to construct something requires planning, communication, problem solving and tools.			
Content Organizer: : Abilities To Do Technological Design			
Grade-level Indicator	Instructional Activities/Strategies	Resources	Assessment
6. Investigate that tools are used to help make things and some things cannot be made without tools.			

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Adams County/Ohio Valley
Course of Study

Content Standard: Science and Technology			
Benchmark B: Explain that to construct something requires planning, communication, problem solving and tools.			
Content Organizer: : Abilities To Do Technological Design			
Grade-level Indicator	Instructional Activities/Strategies	Resources	Assessment
7. Explore that several steps are usually needed to make things (e.g., building with blocks).			

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Adams County/Ohio Valley
Course of Study

Content Standard: Science and Technology
Benchmark B: Explain that to construct something requires planning, communication, problem solving and tools.
Content Organizer: : Abilities To Do Technological Design

Grade-level Indicator	Instructional Activities/Strategies	Resources	Assessment
8. Investigate that when parts are put together they can do things that they could not do by themselves (e.g., blocks, gears and wheels).			

Science Grade 1

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Content Standard: Scientific Inquiry			
Benchmark A: Ask a testable question.			
Content Organizer: : Doing Scientific Inquiry			
Grade-level Indicator	Instructional Activities/Strategies	Resources	Assessment
1. Ask "what happens when" questions.			

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Adams County/Ohio Valley
Course of Study

Content Standard: Scientific Inquiry			
Benchmark A: Ask a testable question.			
Content Organizer: : Doing Scientific Inquiry			
Grade-level Indicator	Instructional Activities/Strategies	Resources	Assessment
2. Explore and pursue student-generated "what happens when" questions.			

Science Grade 1

Adams County/Ohio Valley
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Content Standard: Scientific Inquiry
Benchmark: B: Design and conduct a simple investigation to explore a question.
Content Organizer: : Doing Scientific Inquiry

Grade-level Indicator	Instructional Activities/Strategies	Resources	Assessment
3. Use appropriate safety procedures when completing scientific investigations.			

Science Grade 1

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Content Standard: Scientific Inquiry
Benchmark C: Gather and communicate information from careful observations and simple investigation through a variety of methods.
Content Organizer: : Doing Scientific Inquiry

Grade-level Indicator	Instructional Activities/Strategies	Resources	Assessment
4. Work in a small group to complete an investigation and then share findings with others.			

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Course of Study

Content Standard: Scientific Inquiry
Benchmark C: Gather and communicate information from careful observations and simple investigation through a variety of methods.
Content Organizer: : Doing Scientific Inquiry

Grade-level Indicator	Instructional Activities/Strategies	Resources	Assessment
5. Create individual conclusions about group findings.			

Science Grade 1

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Course of Study

Content Standard: Scientific Inquiry
Benchmark B: Design and conduct a simple investigation to explore a question.
Content Organizer: : Doing Scientific Inquiry

Grade-level Indicator	Instructional Activities/Strategies	Resources	Assessment
6. Use appropriate tools and simple equipment/instruments to safely gather scientific data (e.g., magnifiers, timers and simple balances and other appropriate tools).			

Science Grade 1

Adams County/Ohio Valley
Course of Study

Content Standard: Scientific Inquiry
Benchmark C Gather and communicate information from careful observations and simple investigation through a variety of methods.
Content Organizer: : Doing Scientific Inquiry

Grade-level Indicator	Instructional Activities/Strategies	Resources	Assessment
7. Make estimates to compare familiar lengths, weights and time intervals.			

Science Grade 1

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Content Standard: Scientific Inquiry
Benchmark C: Gather and communicate information from careful observations and simple investigation through a variety of methods.
Content Organizer: : Doing Scientific Inquiry

Grade-level Indicator	Instructional Activities/Strategies	Resources	Assessment
8. Use oral, written and pictorial representation to communicate work.			

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Adams County/Ohio Valley
Course of Study

Content Standard: Scientific Inquiry
Benchmark C: Gather and communicate information from careful observations and simple investigation through a variety of methods.
Content Organizer: : Doing Scientific Inquiry

Grade-level Indicator	Instructional Activities/Strategies	Resources	Assessment
9. Describe things as accurately as possible and compare with the observations of others.			

Science Grade 1

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Content Standard: Scientific Ways of Knowing
Benchmark A: Recognize that there are different ways to carry out scientific investigations. Realize that investigations can be repeated under the same conditions with similar results and may have different explanations.
Content Organizer: : Nature of Science

Grade-level Indicator	Instructional Activities/Strategies	Resources	Assessment
1. Discover that when a science investigation is done the same way multiple times, one can expect to get very similar results each time it is performed.			

Science Grade 1

Adams County/Ohio Valley
Course of Study

Content Standard: Scientific Ways of Knowing
Benchmark A: Recognize that there are different ways to carry out scientific investigations. Realize that investigations can be repeated under the same conditions with similar results and may have different explanations.
Content Organizer: : Nature of Science

Grade-level Indicator	Instructional Activities/Strategies	Resources	Assessment
2. Demonstrate good explanations based on evidence from investigations and observations.			

Science Grade 1

Adams County/Ohio Valley
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Content Standard: Scientific Ways of Knowing			
Benchmark C: Recognize that diverse groups of people contribute to our understanding of the natural world.			
Content Organizer: : Science and Society			
Grade-level Indicator	Instructional Activities/Strategies	Resources	Assessment
3. Explain that everybody can do science, invent things and have scientific ideas no matter where they live.			