



Indiana Department of Education

Grade 1 Science Content Connectors



First Grade Science 2016

Indiana Academic Standards	Content Connectors
Physical Science	
1.PS.1: Characterize materials as solid, liquid, or gas and investigate their properties, record observations and explain the choices to others based on evidence (i.e., physical properties).	1.PS.1.a.1: Sort materials as solid, liquid, or gas.
1.PS.2: Predict and experiment with methods (sieving, evaporation) to separate solids and liquids based on their physical properties.	1.PS.2.a.1: Understand that solids and liquids can be separated by properties.
1.PS.3: Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate.	1.PS.3.a.1: Explore vibrating materials and the sounds they make.
1.PS.4: Make observations to collect evidence and explain that objects can be seen only when illuminated.	1.PS.4.a.1: Make observations that objects can be seen only when illuminated.
Earth Science	
1.ESS.1: Use observations of the sun, moon, and stars to describe patterns that can be predicted.	1.ESS.1.a.1: Identify patterns of the sun and moon.



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1.ESS.2: Observe and compare properties of sand, clay, silt, and organic matter. Look for evidence of sand, clay, silt, and organic matter as components of soil samples.	1.ESS.2.a.1: Explore sand, clay, silt, and organic matter.
1.ESS.3: Observe a variety of soil samples and describe in words and pictures the soil properties in terms of color, particle size and shape, texture, and recognizable living and nonliving items.	1.ESS.3.a.1: Observe a variety of soil samples and describe the soil properties.
1.ESS.4: Develop solutions that could be implemented to reduce the impact of humans on the land, water, air, and/or other living things in the local environment.	1.ESS.4.a.1: Name at least two ways to reduce the impact of humans on the land, water, air, and/or other living things in the local environment.

Life Science	
1.LS.1: Develop representations to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.	1.LS.1.a.1: Understand the lifecycle of living things.
1.LS.2: Develop a model mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs. Explore how those external parts could solve a human problem.	1.LS.2.a.1: Name plant and animal external parts that help them survive.



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<p>1.LS.3: Make observations of plants and animals to compare the diversity of life in different habitats.</p>	<p>1.LS.3.a.1: Make observations of plants and animals to compare the diversity of life in different habitats.</p>
<p>1.LS.4: Use a model to represent the relationship between the needs of different plants and animals (including humans) and the places they live.</p>	<p>1.LS.4.a.1: Identify the needs of plants and animals in different environments.</p>
<p>Science, Engineering and Technology</p>	
<p>K-2.E.1: Pose questions, make observations, and obtain information about a situation people want to change. Use this data to define a simple problem that can be solved through the construction of a new or improved object or tool.</p>	<p>K-2.E.1.a.1 Identify a situation people want to change.</p> <p>K-2.E.1.a.2 Use knowledge to formulate solutions.</p>
<p>K-2.E.2: Develop a simple sketch, drawing, or physical model to illustrate and investigate how the shape of an object helps it function as needed to solve an identified problem.</p>	<p>K-2.E.2.a.1: Use a tool to solve a problem.</p>
<p>K-2.E.3: Analyze data from the investigation of two objects constructed to solve the same problem to compare the strengths and weaknesses of how each performs.</p>	<p>K-2.E.3.a.1: Compare two objects and identify their strengths and weaknesses.</p>