Indiana Early Learning Standards

Science: Kindergarten

Physical Science

1 Demonstrate ability to explore objects in the physical world SC1.1

- a Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object. K-PS2-1
- b Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull.* K-PS2-2

2 Demonstrate awareness of the physical properties of objects SC1.2

- a With guidance, collect and organize data into simple bar graphs, pictographs, and/or tables to identify patterns and make comparisons. K.DA.1
- b Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object. K-PS2-1
- c Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull.* K-PS2-2

Earth and Space Science

1 Recognize seasonal and weather related changes SC2.1

- a Make observations to determine the effect of sunlight on Earth's surface. K-PS3-1
- b Use tools and materials provided to design and build a structure that will reduce the warming effect of sunlight on an area. K-PS3-2
- c Use and share observations of local weather conditions to describe patterns over time.* K-ESS2-1

Life Science

1 Demonstrate awareness of life SC3.1

- a Use observations to describe patterns of what plants and animals (including humans) need to survive. K-LS1-1
- b Use a model to represent the relationship between the needs of different plants and animals (including humans) and the places they live.* K-ESS3-1

2 Demonstrate awareness of the preservation, protection, and care of living creatures and plants SC3.2

- a Use observations to describe patterns of what plants and animals (including humans) need to survive. K-LS1-1
- b Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs. K-ESS2-2

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c Use a model to represent the relationship between the needs of different plants and animals (including humans) and the places they live. K-ESS3-1

d Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment. * K-ESS3-3

Engineering

1 Demonstrate engineering design skills SC4.1

a Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool. K-2-ETS1-1

b Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem. K-2-ETS1-2

c Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.* K-2-ETS1-3

Scientific Inquiry and Method

1 Demonstrate scientific curiosity SC5.1

a Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool. K-2-ETS1-1

b Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem. K-2-ETS1-2

c Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.* K-2-ETS1-3

Computational Thinking

1 Demonstrate decomposition of larger tasks into smaller steps SC6.1

a Breakdown and plan the order of the steps needed for a desired outcome to accomplish the goal. K-2.PA.1

b Using age-appropriate vocabulary, explain steps taken and choices made to improve the design of a sequence. K-2.PA.2

2 Demonstrate algorithmic thinking and debugging SC6.2

a Identify and fix (debug) errors in sequences and simple loops. K-2.PA.4

b Model daily processes by creating and following algorithms (i.e., sets of step-by-step instructions) to complete tasks. K-2.PA.5