2nd Grade Science Standards – Learning Targets

Standards	Learning Target(s)	Science Skills	Vocabulary
S2E1. Obtain, evaluate, and communicate information about stars having different sizes and brightness. a. Ask questions to describe the physical attributes (size and brightness) of stars. b. Construct an argument to support the claim that although the sun appears to be the brightest and largest star, it is actually medium in size and brightness.	I can obtain information about stars having different sizes and brightness. I can evaluate information about stars having different sizes and brightness. I can communicate information about stars having different sizes and brightness. I can ask questions to describe the physical attributes (sizes and brightness) of stars. I can construct an argument to support the claim that although the sun appears to be the brightest and largest star, it is actually medium in size and brightness.	Physical attributes of stars	
S2E2. Obtain, evaluate, and communicate information to develop an understanding of the patterns of the sun and the moon and the sun's effect on Earth. a. Plan and carry out an investigation to determine the effect of the position of the sun in relation to a fixed object on Earth at various times of the day. b. Design and build a structure that demonstrates	I can obtain information to develop an understanding of the patterns of the sun and it's effect on the Earth. I can obtain information to develop an understanding of the moon and the sun's effect on Earth. I can obtain information to develop an understanding of the patterns of the moon. I can obtain information to develop an understanding of the patterns of the sun. I can evaluate information to develop an understanding of the patterns of the sun and it's effect on the Earth. I can evaluate information to develop an understanding of the moon and the sun's effect on Earth. I can evaluate information to develop an understanding of the patterns of the moon. I can evaluate information to develop an understanding of the patterns of the sun. I can communicate information to develop an understanding	Sun, Day, Night	

how shadows change throughout the day. c. Represent data in tables and/or graphs of the length of the day and night to recognize the change in seasons. d. Use data from personal observations to describe, illustrate, and predict how the appearance of the moon changes over time in a pattern. (Clarification statement: Students are not required to know the names of the phases of the moon or understand the tilt of the Earth.)	of the patterns of the sun and it's effect on the Earth. I can communicate information to develop an understanding of the moon and the sun's effect on Earth. I can communicate information to develop an understanding of the patterns of the moon. I can communicate information to develop an understanding of the patterns of the sun. I can plan an investigation to determine the effect of the position of the sun in relation to a fixed object on Earth at various times of the day. I can carry out an investigation to determine the effect of the position of the sun in relation to a fixed object on Earth at various times of the day. I can design a structure that demonstrates how shadows change throughout the day. I can build a structure that demonstrates how shadows change throughout the day. I can represent data in tables of the length of the day to recognize the change in seasons. I can represent data in graphs of the length of the day to recognize the change in seasons. I can represent data in tables of the length of the night to recognize the change in seasons. I can represent data in graphs of the length of the night to recognize the change in seasons. I can use data from personal observations to describe how the appearance of the moon changes over time in a pattern. I can use data from personal observations to illustrate how the appearance of the moon changes over time in a pattern. I can use data from personal observations to predict how the appearance of the moon changes over time in a pattern.		
S2E3. Obtain, evaluate, and communicate information about how weather, plants, animals, and humans cause changes	I can obtain information about how weather cause changes to the environment. I can obtain information about how plants cause changes to the environment. I can obtain information about how how animals cause	Changes in surroundings	

to the environment. (Clarification statement: Changes should be easily observable and could be seen on school grounds or at home.) a. Ask questions to obtain information about major changes to the environment in your community. b. Construct an explanation of the causes and effects of a change to the environment in your community.	changes to the environment. I can evaluate information about how weather cause changes to the environment. I can evaluate information about how plants cause changes to the environment. I can evaluate information about how how animals cause changes to the environment. I can evaluate information about how weather cause changes to the environment. I can evaluate information about how plants cause changes to the environment. I can evaluate information about how how animals cause changes to the environment. I can ask questions to obtain information about major changes to the environment in your community. I can construct an explanation of the causes of a change to the environment in your community. I can construct an explanation of the effects of a change to the environment in your community.		
S2P1. Obtain, evaluate, and communicate information about the properties of matter and changes that occur in objects. a. Ask questions to describe and classify different objects according to their physical properties. (Clarification statement: Examples of physical properties could include	I can obtain information about the properties of matter. I can evaluate information about the properties of matter. I can communicate information about the properties of matter. I can obtain information about changes that occur in objects. I can evaluate information about changes that occur in objects. I can communicate information about changes that occur in objects. I can ask questions to describe different objects according to their physical properties. I can ask questions to classify different objects according to their physical properties. I can construct an explanation for how structures made from	Properties and changes in matter	

color, mass, length, texture, hardness, strength, absorbency, and flexibility.) b. Construct an explanation for how structures made from small pieces (linking cubes, building blocks) can be disassembled and then rearranged to make new and different structures. c. Provide evidence from observations to construct an explanation that some changes in matter caused by heating or cooling can be reversed and some changes are irreversible. (Clarification statement: Changes in matter could include heating or freezing of water, baking a cake, boiling an egg.)	small pieces can be disassembled to make new and different structures. I can construct an explanation for how structures made from small pieces can be rearranged to make new and different structures. I can provide evidence from observations to construct an explanation that some changes in matter caused by heating can be reversed. I can provide evidence from observations to construct an explanation that some changes in matter caused by heating are irreversible. I can provide evidence from observations to construct an explanation that some changes in matter caused by cooling can be reversed. I can provide evidence from observations to construct an explanation that some changes in matter caused by cooling are irreversible.		
S2P2. Obtain, evaluate, and communicate information to explain the effect of a force (a push or a pull) in the movement of an object	I can obtain information to explain the effect of a force(a push or a pull) in the movement of an object(changes in speed and direction). I can evaluate information to explain the effect of a force(a push or a pull) in the movement of an object(changes in speed and direction).	Energy/Push and Pull	

(changes in speed and direction). a. Plan and carry out an investigation to demonstrate how pushing and pulling on an object affects the motion of the object. b. Design a device to change the speed or direction of an object. c. Record and analyze data to decide if a design solution works as intended to change the speed or direction of an object with a force (a push or a pull).	I can communicate information to explain the effect of a force (a push or a pull) in the movement of an object(changes in speed and direction). I can plan out an investigation to demonstrate how pushing on an object affects the motion of the object. I can carry out an investigation to demonstrate how pushing on an object affects the motion of the object. I can design a device to change the direction of an object. I can design a device to change the speed of an object. I can record data to decide if a design solution works as intended to change the speed of an object with a force(a push or pull). I can analyze data to decide if a design solution works as intended to change the speed of an object with a force(a push or pull). I can record data to decide if a design solution works as intended to change the direction of an object with a force(a push or pull). I can analyze data to decide if a design solution works as intended to change the direction of an object with a force(a push or pull).		
S2L1. Obtain, evaluate, and communicate information about the life cycles of different living organisms. a. Ask questions to determine the sequence of the life cycle of common animals in your area: a mammal such as a cat, dog or classroom pet, a bird such as a chicken, an amphibian such as a	I can obtain information about the life cycles of different organisims. I can evaluate information about the life cycles of different living organisms. I can communicate information about the life cycles of different living organisms. I can ask questions to determine the sequence of the life cycle of common animals in your area. I can plan an investigation of the life cycle of a plant by growing a plant from a seed and recording changes over a period of time. I can carry out an investigation of the life cycle of a plant by growing a plant from a seed and recording changes over a	Life Cycles	

frog, and an insect such as a butterfly. b. Plan and carry out an investigation of the life cycle of a plant by growing a plant from a seed and by recording changes over a period of time. c. Construct an explanation of an animal's role in dispersing seeds or in the pollination of plants. d. Develop models to illustrate the unique and diverse life cycles of organisms other than humans.	period of time. I can construct an explanation of an animal's role in dispersing seeds. I can construct an explanation of an animal's role in the pollination of plants. I can develop models to illustrate the unique life cycles of organisms other than humans. I can develop models to illustrate the diverse life cycles of organisms other than humans.		

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Standards	Learning Target(s)	Reading Skills	Vocabulary

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