Grade 2 Science GSE Learning Map

Prioritized Standard: S2E1.b Obtain, evaluate, and communicate information about stars having different sizes and brightness. 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. ***Earth Science***

	Proficiency Scale
4.0	**In addition to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught. For example, the student will:** **Learning Target 1**: Analyze data in order to compare/contrast stars of different brightness **Learning Target 2**: Analyze data in order to compare/contrast stars of different sizes
3.5	In addition to score 3.0 performance, partial success at score 4.0 content
3.0	**The student will** **Learning Target 1**: Construct an argument to support the claim that although the sun appears to be the brightest and largest star, it is medium in size and brightness **The student exhibits no major errors or omissions.**
2.5	No major errors or omissions regarding score 2.0 content and partial success at score 3.0
2.0	**There are no major errors or omissions regarding the simpler details and processes.** **The student will recognize or recall specific vocabulary:** **Learning Target 1**: sun, brightness, star, rotate, constellation **The student will perform basic processes:** **Learning Target 2**: Describe differences between Earth and stars **Learning Target 3**: Identify physical attributes of stars, including the sun **Learning Target 4**: Identify the sun as our closest and brightest star **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.**
1.5	Partial success at score 2.0 content and major errors or omissions regarding score 3.0 content
1.0	With help, partial success at score 2.0 and score 3.0
0.5	With help, partial success at score 2.0 content but not at score 3.0 content
0.0	Even with help, no success

Grade 2 Science GSE Learning Map

Prioritized Standard: S2E2.a 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. 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. *Earth Science*

	Proficiency Scale
4.0	**In addition to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught. For example, the student will:** **Learning Target 1**: Develop and use a model to explain the different effects of the sun's position throughout the day **Learning Target 2**: Analyze and interpret data from the investigation to explain the effect of the position of the sun in relation to a fixed object on Earth at various times of the day
3.5	In addition to score 3.0 performance, partial success at score 4.0 content
3.0	**The student will** **Learning Target 1**: 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 **The student exhibits no major errors or omissions.**
2.5	No major errors or omissions regarding score 2.0 content and partial success at score 3.0
2.0	**There are no major errors or omissions regarding the simpler details and processes.** **The student will recognize or recall specific vocabulary:** **Learning Target 1**: sun, compass, rotation, orbit **The student will perform basic processes:** **Learning Target 2**: Describe the time of day based on the sun's position in the sky **Learning Target 3**: Use a compass/compass rose to identify directions (map and/or real-world) **Learning Target 4**: Model Earth's rotation in relation to the sun **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.**
1.5	Partial success at score 2.0 content and major errors or omissions regarding score 3.0 content
1.0	With help, partial success at score 2.0 and score 3.0
0.5	With help, partial success at score 2.0 content but not at score 3.0 content
0.0	Even with help, no success

Grade 2 Science GSE Learning Map

Prioritized Standard: S2E2.b 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. Design and build a structure that demonstrates how shadows change throughout the day. ***Earth Science***

	Proficiency Scale
4.0	**In addition to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught. For example, the student will:** **Learning Target 1**: Use measurement to collect shadow data, create a graph using data, and analyze data to identify patterns in shadow length throughout the day **Learning Target 2**: Construct an explanation to justify why shadow data could vary daily
3.5	In addition to score 3.0 performance, partial success at score 4.0 content
3.0	**The student will** **Learning Target 1**: Design and build a structure that demonstrates how shadows change throughout the day **The student exhibits no major errors or omissions.**
2.5	No major errors or omissions regarding score 2.0 content and partial success at score 3.0
2.0	**There are no major errors or omissions regarding the simpler details and processes.** **The student will recognize or recall specific vocabulary:** **Learning Target 1**: sun, shadow, rotate **The student will perform basic processes:** **Learning Target 2**: Identify the morning sun, noon sun, and evening sun **Learning Target 3**: Describe the differences in shadows created by the morning sun, noon sun, and evening sun **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.**
1.5	Partial success at score 2.0 content and major errors or omissions regarding score 3.0 content
1.0	With help, partial success at score 2.0 and score 3.0
0.5	With help, partial success at score 2.0 content but not at score 3.0 content
0.0	Even with help, no success

Grade 2 Science GSE Learning Map

Prioritized Standard: S2E2.d 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. Use data from personal observations to describe, illustrate, and predict how the appearance of the moon changes over time in a predictable pattern. (Clarification statement: Students are not required to know the phases of the moon or tilt of the Earth.) ***Earth Science***

	Proficiency Scale
4.0	**In addition to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught. For example, the student will:** **Learning Target 1**: Develop a model depicting the moon throughout a full cycle and explain why these changes occur **Learning Target 2**: Explain why this predictable pattern of the moon's appearance occurs
3.5	In addition to score 3.0 performance, partial success at score 4.0 content
3.0	**The student will** **Learning Target 1**: Use data from personal observations to describe, illustrate, and predict how the appearance of the moon changes over time in a predictable pattern **The student exhibits no major errors or omissions.**
2.5	No major errors or omissions regarding score 2.0 content and partial success at score 3.0
2.0	**There are no major errors or omissions regarding the simpler details and processes.** **The student will recognize or recall specific vocabulary:** **Learning Target 1**: sun, moon **The student will perform basic processes:** **Learning Target 2**: Recognize that the appearance of the moon changes over time **Learning Target 3**: Describe the physical attributes of the moon **Learning Target 4**: Explain the difference between the moon and stars **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.**
1.5	Partial success at score 2.0 content and major errors or omissions regarding score 3.0 content
1.0	With help, partial success at score 2.0 and score 3.0
0.5	With help, partial success at score 2.0 content but not at score 3.0 content
0.0	Even with help, no success

Grade 2 Science GSE Learning Map

Prioritized Standard: S2E3.b Obtain, evaluate, and communicate information about how weather, plants, animals, and humans cause changes to the environment. Construct an explanation of the causes of a change to the environment in your community. *Earth Science*

	Proficiency Scale
4.0	**In addition to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught. For example, the student will:** **Learning Target 1**: Construct an argument to influence others to protect the environment from changes that occur **Learning Target 2**: Research a cause of change to the environment and explain how this change could be both positive and negative
3.5	In addition to score 3.0 performance, partial success at score 4.0 content
3.0	**The student will** **Learning Target 1**: Construct an explanation of the causes of a change to the environment in your community **The student exhibits no major errors or omissions.**
2.5	No major errors or omissions regarding score 2.0 content and partial success at score 3.0
2.0	**There are no major errors or omissions regarding the simpler details and processes.** **The student will recognize or recall specific vocabulary:** **Learning Target 1**: flood, drought, erosion, pollution **The student will perform basic processes:** **Learning Target 2**: Identify examples of erosion, floods, drought, and pollution **Learning Target 3**: Describe the effects of erosion, floods, drought, and pollution on the environment **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.**
1.5	Partial success at score 2.0 content and major errors or omissions regarding score 3.0 content
1.0	With help, partial success at score 2.0 and score 3.0
0.5	With help, partial success at score 2.0 content but not at score 3.0 content
0.0	Even with help, no success

Grade 2 Science GSE Learning Map

Prioritized Standard: S2L1.b Obtain, evaluate, and communicate information about the life cycles of different living organisms. 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. *Life Science*

	Proficiency Scale
4.0	**In addition to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught. For example, the student will:** **Learning Target 1**: Plan and carry out an investigation by changing a basic need of a plant, analyze data to draw conclusions about the investigation **Learning Target 2**: Analyze investigational data to explain changes in plant growth
3.5	In addition to score 3.0 performance, partial success at score 4.0 content
3.0	**The student will** **Learning Target 1**: 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. **The student exhibits no major errors or omissions.**
2.5	No major errors or omissions regarding score 2.0 content and partial success at score 3.0
2.0	**There are no major errors or omissions regarding the simpler details and processes.** **The student will recognize or recall specific vocabulary:** **Learning Target 1**: life cycle, seed, seedling, reproduce **The student will perform basic processes:** **Learning Target 2**: Describe the basic needs of plants **Learning Target 3**: Identify and describe the stages of the life cycle of a plant **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.**
1.5	Partial success at score 2.0 content and major errors or omissions regarding score 3.0 content
1.0	With help, partial success at score 2.0 and score 3.0
0.5	With help, partial success at score 2.0 content but not at score 3.0 content
0.0	Even with help, no success

Grade 2 Science GSE Learning Map

Prioritized Standard: S2L1.d Obtain, evaluate, and communicate information about the life cycles of different living organisms. Develop models to illustrate the unique and diverse life cycles of organisms other than humans. ***Life Science***

	Proficiency Scale
4.0	**In addition to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught. For example, the student will:** **Learning Target 1**: Research an event that would have an impact on the life cycle of an animal. Construct an explanation about how/why the life cycle would be impacted. **Learning Target 2**: Research an animal with a unique life cycle and construct an explanation about how it helps the animal survive.
3.5	In addition to score 3.0 performance, partial success at score 4.0 content
3.0	**The student will** **Learning Target 1**: Develop models to illustrate the unique and diverse life cycles of organisms other than humans **The student exhibits no major errors or omissions.**
2.5	No major errors or omissions regarding score 2.0 content and partial success at score 3.0
2.0	**There are no major errors or omissions regarding the simpler details and processes.** **The student will recognize or recall specific vocabulary:** **Learning Target 1**: life cycle, egg, adult **The student will perform basic processes:** **Learning Target 2**: Describe basic needs of animals **Learning Target 3**: Identify and describe the life cycles of mammals, birds, amphibians, and insects **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.**
1.5	Partial success at score 2.0 content and major errors or omissions regarding score 3.0 content
1.0	With help, partial success at score 2.0 and score 3.0
0.5	With help, partial success at score 2.0 content but not at score 3.0 content
0.0	Even with help, no success

Grade 2 Science GSE Learning Map

Prioritized Standard: S2P1.c Obtain, evaluate, and communicate information about the properties of matter and changes that occur in objects. 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.) ***Physical Science***

	Proficiency Scale
4.0	**In addition to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught. For example, the student will:** **Learning Target 1**: Carry out an investigation to show changes in states of matter caused by heating or cooling. Use a model to explain why the change in matter occurred **Learning Target 2**: Develop a rule or reason to explain why some changes in matter are reversible and others are not
3.5	In addition to score 3.0 performance, partial success at score 4.0 content
3.0	**The student will** **Learning Target 1**: 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 **The student exhibits no major errors or omissions.**
2.5	No major errors or omissions regarding score 2.0 content and partial success at score 3.0
2.0	**There are no major errors or omissions regarding the simpler details and processes.** **The student will recognize or recall specific vocabulary:** **Learning Target 1**: solid, liquid, gas, matter, mixture **The student will perform basic processes:** **Learning Target 2**: Observe and identify the various states of matter **Learning Target 3**: Compare the properties of solids, liquids, and gases **Learning Target 4**: Identify a mixture **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.**
1.5	Partial success at score 2.0 content and major errors or omissions regarding score 3.0 content
1.0	With help, partial success at score 2.0 and score 3.0
0.5	With help, partial success at score 2.0 content but not at score 3.0 content
0.0	Even with help, no success

Grade 2 Science GSE Learning Map

Prioritized Standard: S2P2.b Obtain, evaluate, and communicate information to demonstrate changes in speed and direction using a force (a push or a pull). Design a device to change the speed or direction of an object. ***Physical Science***

	Proficiency Scale
4.0	**In addition to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught. For example, the student will** **Learning Target 1**: Design a device to change the speed or direction of an object **Learning Target 2**: Compare and contrast devices used to change the speed or direction of an object. Construct an explanation about how/why the change occurs **Learning Target 3**: Research and construct an explanation about how different variables (natural or human) can affect the speed and direction of an object
3.5	In addition to score 3.0 performance, partial success at score 4.0 content
3.0	**The student will** **Learning Target 1**: Design a device to change the speed or direction of an object **The student exhibits no major errors or omissions.**
2.5	No major errors or omissions regarding score 2.0 content and partial success at score 3.0
2.0	**There are no major errors or omissions regarding the simpler details and processes.** **The student will recognize or recall specific vocabulary:** **Learning Target 1**: speed, direction, push, pull, force **The student will perform basic processes:** **Learning Target 2**: Identify examples of different types of movement **Learning Target 3**: Describe examples of ways to change the speed or direction of an object with a push or a pull **Learning Target 4**: Understand how pushing and pulling on an object affects the motion of the object **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.**
1.5	Partial success at score 2.0 content and major errors or omissions regarding score 3.0 content
1.0	With help, partial success at score 2.0 and score 3.0
0.5	With help, partial success at score 2.0 content but not at score 3.0 content
0.0	Even with help, no success

Grade 2 Science GSE Learning Map

Prioritized Standard: S2P2.c Obtain, evaluate, and communicate information to demonstrate changes in speed and direction using a force (a push or a pull). 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). ***Physical Science***

	Proficiency Scale
4.0	**In addition to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught. For example, the student will:** **Learning Target 1**: Conduct an investigation to show how force affects speed and motion of different objects and form conclusions from the investigation **Learning Target 2**: Compare and contrast data from two different design solutions and justify why one solution is more effective than the other
3.5	In addition to score 3.0 performance, partial success at score 4.0 content
3.0	**The student will** **Learning Target 1**: 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) **The student exhibits no major errors or omissions.**
2.5	No major errors or omissions regarding score 2.0 content and partial success at score 3.0
2.0	**There are no major errors or omissions regarding the simpler details and processes.** **The student will recognize or recall specific vocabulary:** **Learning Target 1**: motion, push, pull, force **The student will perform basic processes:** **Learning Target 2**: Use a device to change the speed or direction of an object **Learning Target 3**: Collect and record data showing changes in speed or direction of an object **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.**
1.5	Partial success at score 2.0 content and major errors or omissions regarding score 3.0 content
1.0	With help, partial success at score 2.0 and score 3.0
0.5	With help, partial success at score 2.0 content but not at score 3.0 content
0.0	Even with help, no success