ENERGY

Performance Expectation	Use evidence to construct an explanation relating the speed of an object to the energy of that object.
Clarification Statement	Relating the speed of an object to the energy of the object does not require calculation of the object's speed.

Science & Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
1. Asking questions and defining problems 2. Developing and using models 3. Planning and carrying out Investigations 4. Analyzing and interpreting data 5. Using mathematics and computational thinking **6. Constructing explanations and designing solutions:** Constructing explanations (science) and designing solutions (engineering) in 3–5 builds on K–2 experiences and progresses to the use of evidence in constructing explanations that specify variables that describe and predict phenomena and in designing multiple solutions to design problems • Use evidence (e.g., measurements, observations, patterns) to construct or support an explanation or design a solution to a problem. 7. Engaging in argument from evidence 8. Obtaining, evaluating, and communicating information	**DEFINITIONS OF ENERGY** The faster a given object is moving, the more energy it possesses. (UE.PS3A.a)	**ENERGY AND MATTER** Energy can be transferred in various ways and between objects.

FROM MOLECULES TO ORGANISMS: STRUCTURE AND PROCESSES

Performance Expectation	Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.
Clarification Statement	Examples of structures could include thorns, stems, roots, colored petals, heart, stomach, lung, brain, shells, fur or skin.

Science & Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
1. Asking questions and defining problems 2. Developing and using models 3. Planning and carrying out investigations 4. Analyzing and interpreting data 5. Using mathematics and computational thinking 6. Constructing explanations and designing solutions **7. Engaging in argument from evidence:** Engaging in argument from evidence in 3–5 builds on K–2 experiences and progresses to critiquing the scientific explanations or solutions proposed by peers by citing relevant evidence about the natural and designed world(s). • Construct and/or support an argument with evidence, data, and/or a model. 8. Obtaining, evaluating, and communicating information	**STRUCTURE AND FUNCTION** Plants and animals have both internal and external structures that serve various functions in growth, survival, behavior, and reproduction. (UE.LS1A.a)	**SYSTEMS AND SYSTEM MODELS** A system can be described in terms of its components and their interactions.

EARTH'S PLACE IN THE UNIVERSE

Performance Expectation	Identify evidence from patterns in rock formations and fossils in rock layers to support an explanation for changes in landforms over time.
Clarification Statement	Examples of evidence from patterns could include rock layers with marine shell fossils above rock layers with plant fossils and no shells, indicating a change from land to water over time, and a canyon with different rock layers in the walls and a river in the bottom, indicating that over time a river cut through the rock. Does not include specific knowledge of the mechanism of rock formation or memorization of specific rock formation and layers.

Science & Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
1. Asking questions and defining problems 2. Developing and using models 3. Planning and carrying out investigations 4. Analyzing and interpreting data 5. Using mathematics and computational thinking **6. Constructing explanations and designing solutions:** Constructing explanations (science) and designing solutions (engineering) in 3–5 builds on K–2 experiences and progresses to the use of evidence in constructing explanations that specify variables that describe and predict phenomena and in designing multiple solutions to design problems • Identify the evidence that supports particular points in an explanation. 7. Engaging in argument from evidence 8. Obtaining, evaluating, and communicating information	**THE HISTORY OF PLANET EARTH** Local, regional, and global patterns of rock formations reveal changes over time due to Earth's forces such as earthquakes and volcanoes. The presence and location of certain fossil types indicate the order in which rock layers were formed. (UE.ESS1C.a)	**PATTERNS** Patterns can be used as evidence to support an explanation.