



THE STATE EDUCATION DEPARTMENT / THE UNIVERSITY OF THE STATE OF NEW YORK / ALBANY, NY 12234

Performance Level Descriptions

Performance level descriptions

| Topic and PE | NYS Level 4 | NYS Level 3 | NYS Level 2 | NYS Level 1 |
|---|--|-------------|-------------|-------------|
| Interdependent Relationships in Ecosystems 3-LS2-1 | Construct an argument using evidence, data, and/or a model to describe the cause and effect relationship between animals | | | |

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|---------------------------------|--|---|---|---|
| Weather and Climate 3-ESS2-1 | Represent data in tables and graphical displays to find patterns in weather conditions to compare typical weather conditions during two seasons. | Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season. | Given data from a table or graphical display, identify typical patterns of weather conditions expected during a particular season. | Given data of weather conditions from a data table or a graphical display, identify the season during which the weather is occurring |
| Weather and Climate 3-ESS2-2 | Obtain and combine information to describe climate patterns in different regions of the world and describe how climates are influenced by their locations on Earth. | Obtain and combine information to describe climates in different regions of the world. | Interpret given information to describe a climate pattern in a region of the world. | Use given information to identify the correct climate pattern, from those given, in a region of the world. |
| Weather and Climate 3-ESS3-1 | Make a claim about the merit of a design solution, by citing relevant scientific evidence about how it meets the criteria and constraints of the problem, that results in a reduction of impacts caused by a weather-related hazard. | Make a claim about the merit of a design solution that reduces the impacts of a weather-related hazard. | Identify a claim about the merit of a design solution, using evidence provided, that reduces the impacts of a weather-related hazard. | Identify the given evidence that supports a claim about the merit of a solution that reduces the impacts of a weather-related hazard. |

Weather and Climate

3-ESS2-3
NYSED

Plan and conduct an investigation to determine the cause and effect of

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| Energy 4-PS3-1 | Use multiple types of evidence (e.g., observations, investigations, simulations) to construct an explanation relating the speed of an object to the energy of that object. | Use evidence to construct an explanation relating the speed of an object to the energy of that object. | Identify the evidence that supports an explanation relating the speed of an object to the energy of that object. | Identify the explanation, from those given, that supports the evidence that relates the speed of an object to the energy of that object. |
| Energy 4-PS3-2 | Design an investigation and make observations to produce data to serve as the basis for evidence for an explanation that energy is conserved as it is transferred and/or converted from one form to another. | Make observations to provide evidence that energy is conserved as it is transferred and/or converted from one form to another. | Given observations, identify the evidence that supports an explanation of energy conservation. | Identify the explanation, from those given, that supports the evidence that energy is conserved as it is transferred and/or converted from one form to another. |

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| Waves: Waves and Information 4-PS4-1 | | | | |

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| Earth's Systems: Processes that Shape the Earth 4-ESS1-1 | Construct an explanation for changes in landscapes over time, using evidence from patterns in rock formations and fossils in rock layers. | Identify evidence from patterns in rock formations and fossils in rock layers to support an explanation for changes in landscapes over time. | Support an explanation by identifying the evidence, from those given, using patterns in rock formations and/or fossils in rock layers, for the change in a landscape over time. | Identify an explanation for changes in landscapes over time, from those given, using evidence from patterns in rock formations and/or fossils in rock layers. |
| Earth's Systems: Processes that Shape the Earth 4-ESS2-1 | Make observations and/or measurements to identify patterns that provide evidence of the effects of weathering and the rate of erosion caused by water, ice, wind and vegetation. | Make observations and/or measurements to provide evidence of the effects of weathering or the rate of erosion caused by water, ice, wind or vegetation. | Identify the observation and/or measurement. | 4-ESS2-1 (e) |



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| Matter and Energy in Organisms and Ecosystems 5-PS3-1 | Develop and use a model to show that energy in animals' food was once energy from the Sun, how photosynthesis plays a role in this transfer of energy, and how this energy is used by animals for body repair, growth, motion and to maintain body warmth. | Use models to describe that energy in animals' food (used for body repair, growth, motion and to maintain body warmth) was once energy from the Sun. | Use a model to describe the evidence that energy in animals' food (used for body repair or growth or motion or to maintain body warmth) was once energy from the Sun. | Identify the evidence in a model that shows that energy in animals' food was once energy from the Sun. |
| Matter and Energy in Organisms and Ecosystems 5-LS1-1 | Plan and conduct an investigation to gather data and provide evidence that plants get the materials they need for growth chiefly from air and water, and not soil. | Support an argument that plants get the materials they need for growth chiefly from air and water. | Identify the evidence in given information that supports an argument that plants get the materials they need for growth chiefly from air and water. | Using evidence, identify the argument from those provided, that plants get the materials they need chiefly from air and water. |
| Matter and Energy in Organisms and Ecosystems 5-LS2-1 | Develop a model that includes multiple pathways to describe the movement of matter and energy among multiple plants (producers), animals (consumers), decomposers and the environment. | Develop a model to describe the movement of matter among plants (producers), animals (consumers), decomposers, and the environment. | Use a model of a food web to describe the movement of matter among plants (producers), animals (consumers), decomposers, and/or the environment. | Identify the evidence in a model of a food web that shows one pathway for the transfer of matter among plants (producers), animals (consumers), decomposers, and/or the environment. |

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| Earth's Systems 5-ESS2-1 | Develop a model, using an example to describe multiple ways in which the geosphere, biosphere, hydrosphere, and atmosphere interact. | Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or | | |

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| Space Systems: Stars and the Solar System 5-PS2-1 | Using multiple sources of evidence, construct an argument that the gravitational force exerted by Earth causes objects to be directed downward. | Support an argument that the gravitational force exerted by Earth on objects is directed down. | Identify the evidence that supports an argument that the gravitational force exerted by Earth causes objects to be directed downward. | Identify the argument, based on given evidence, that supports gravitational force exerted by Earth causes objects to be directed downward. |
| Space Systems: Stars and the Solar System 5-ESS1-1 | Construct an argument, with evidence, that differences in the apparent brightness of the Sun compared to other stars is due to relative distances from Earth. | Support an argument that differences in the apparent brightness of the Sun compared to other stars is due to their relative distances from Earth. | Identify an argument based on evidence, from those given, that differences in the apparent brightness of the Sun compared to other stars is due to relative distances from Earth. | Given an argument, identify the evidence that shows that the differences in the apparent brightness of the Sun compared to other stars is due to relative distances from Earth. |
| Space Systems: Stars and the Solar System 5-ESS1-2 | Construct a graphical display, using data, to explain the reason for the patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky. | Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky. | Identify the patterns in graphical or pictorial displays that show the daily changes in length and direction of shadows, or day and night, or in the seasonal appearance of some stars in the night sky. | Identify a pattern from a given display of data showing the daily changes in length and direction of shadows, or in the length of day and night, or in the seasonal appearance of some stars in the night sky. |

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| 3-5 Engineering Design ETS1-1 | Investigate and define multiple simple design problems reflecting a need or want in a community, that includes specified criteria for success and constraints on materials, time, and cost. | Define a simple design problem reflecting a need or a want, that includes specified criteria for success and constraints on materials, time, or cost. | Identify a simple design problem, from those provided, reflecting a need or want, that includes specified criteria for success or constraints on materials, time, or cost. | Identify a simple design problem, from those provided, reflecting a need or want of society. |
| 3-5 Engineering Design ETS1-2 | Generate and compare multiple possible solutions to a problem, based on how well each is likely to meet the criteria and constraints of the problem, and make a claim about which solution best solves the problem based on science and engineering principles. | Generate and compare multiple possible solutions to a problem based on how well each solution is likely to meet the criteria and constraints of the problem. | | |