

Detail Correlation for Idaho Content Standards – Science Grades K-5

Grade K

K-PS-1.1 (Essential): With guidance and support, 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.	Disciplinary Core Ideas PS2.A: Forces and Motion PS2.B: Types of Interactions Science and Engineering Practices Planning and Carrying Out Investigations Crosscutting Concepts Cause and Effect	MATERIALS AND FORCES Investigation 3, Parts 1-3
K-PS-1.2 (Essential): With guidance and support, analyze data to determine if a design solution works as intended to change the motion of an object with a push or a pull.*	Disciplinary Core Ideas PS2.A: Forces and Motion PS2.B: Types of Interactions ETS1.A: Defining Engineering Problems Science and Engineering Practices Analyzing and Interpreting Data Crosscutting Concepts Cause and Effect	MATERIALS AND FORCES Investigation 3, Parts 2 and 3
K-PS-2.1: Make observations to determine the effect of the Sun's energy on the Earth's surface.	Disciplinary Core Ideas PS3.B: Conservation of Energy and Energy Transfer Science and Engineering Practices Planning and Carrying Out Investigations Crosscutting Concepts Cause and Effect	MATERIALS AND FORCES Investigation 1, Parts 1 and 2 TREES AND WEATHER Investigation 2, Part 2
K-PS-2.2 (Essential): Design and build a structure that will reduce the warming effect of the sun's area on a material.*	Disciplinary Core Ideas PS3.B: Conservation of Energy and Energy Transfer Science and Engineering Practices Constructing Explanations and Designing Solutions Crosscutting Concepts Cause and Effect	MATERIALS AND FORCES Investigation 1, Parts 2-4 Investigation 2, Part 1
K-LS-1.1 (Essential): Use observations to describe how plants and animals are alike and different in terms of how they live and grow.	Disciplinary Core Ideas LS1.C: Organization for Matter and Energy Flow in Organisms Science and Engineering Practices Analyzing and Interpreting Data Crosscutting Concepts Patterns	TREES AND WEATHER Investigation 1, Parts 1-4 Investigation 3, Parts 1-3 ANIMALS TWO BY TWO Investigation 1, Parts 1 and 2 Investigation 2, Parts 1-3 Investigation 3, Part 1 Investigation 4, Part 1
K-ESS-1.1 (Essential): Use and share observations of local weather conditions to describe variations in patterns throughout the year.	Disciplinary Core Ideas ESS2.D: Weather and Climate Science and Engineering Practices Analyzing and Interpreting Data Crosscutting Concepts Patterns	TREES AND WEATHER Investigation 2, Parts 1-3 Investigation 3, Parts 1-3

*This performance expectation integrates traditional science content with engineering through a practice or disciplinary core idea.

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Grade K		
K-ESS-1.2: With guidance and support, use evidence to construct an explanation of how plants and animals interact with their environment to meet their needs.	Disciplinary Core Ideas ESS2.D: Weather and Climate ESS2.E: Biogeology Science and Engineering Practices Engaging in Argument from Evidence Crosscutting Concepts Systems and System Models	MATERIALS AND FORCES Investigation 1, Parts 2-4 Investigation 2, Part 2 TREES AND WEATHER Investigation 1, Part 1 Investigation 2, Parts 2 and 3 Investigation 4, Part 2
K-ESS-2.1 (Essential): Use a model to represent the relationship between the needs of different plants and animals and the places they live.	Disciplinary Core Ideas ESS3.A: Natural Resources Science and Engineering Practices Developing and Using Models Crosscutting Concepts System and System Models	TREES AND WEATHER Investigation 1, Parts 1-4 ANIMALS TWO BY TWO Investigation 1, Part 1 and 2 Investigation 2, Parts 2 and 3 Investigation 3, Part 1
K-ESS-2.2 (Essential): Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, local weather.*	Disciplinary Core Ideas ESS3.B: Natural Hazards ETS1.A: Defining and Delimiting an Engineering Problem Science and Engineering Practices Asking Questions and Defining Problems Crosscutting Concepts Cause and Effect	TREES AND WEATHER Investigation 2, Part 3
K-ESS-2.3 (Essential): Communicate ideas that would enable humans to interact in a beneficial way with the land, water, air, and/or other living things in the local environment.*	Disciplinary Core Ideas ESS3.C: Human Impacts on Earth Systems ETS1.B: Developing Possible Solutions Science and Engineering Practices Obtaining, Evaluating, and Communicating Information Crosscutting Concepts Cause and Effect	MATERIALS AND FORCES Investigation 2, Part 3
Grade K Engineering Correlations		
K-2-ETS1-1: 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.	Disciplinary Core Ideas ETS1.A: Defining and Delimiting Engineering Problems Science and Engineering Practices Asking Questions and Defining Problems Crosscutting Concepts Structure and Function	MATERIALS AND FORCES Investigation 1, Parts 2-4 Investigation 3, Part 3
K-2-ETS1-2: 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.	Disciplinary Core Ideas ETS1.B: Developing Possible Solutions Science and Engineering Practices Developing and Using Models Crosscutting Concepts Structure and Function	MATERIALS AND FORCES Investigation 2, Part 3

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K-2-ETS1-3: Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.	Disciplinary Core Ideas ETS1.C: Optimizing the Design Solution Science and Engineering Practices Analyzing and Interpreting Data Crosscutting Concepts Structure and Function	MATERIALS AND FORCES Investigation 2, Part 1
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Disciplinary Core Ideas Assessment Opportunities

Grade K	MATERIALS AND FORCES			TREES AND WEATHER			ANIMALS TWO BY TWO			
DCI	INV. 1	INV. 2	INV. 3	INV. 1	INV. 2	INV. 3	INV. 1	INV. 2	INV. 3	INV. 4
PS2.A										
PS2.B										
PS3.B										
PS3.C										
LS1.C										
ESS2.D										
ESS2.E										
ESS3.A										
ESS3.B										
ESS3.C										
ETS1.A										
ETS1.B										
ETS1.C										

Science and Engineering Practices Assessment Opportunities

Grade K	MATERIALS AND FORCES			TREES AND WEATHER			ANIMALS TWO BY TWO			
SEP	INV. 1	INV. 2	INV. 3	INV. 1	INV. 2	INV. 3	INV. 1	INV. 2	INV. 3	INV. 4
Asking Questions and Defining Problems										
Developing and Using Models										
Planning and Carrying Out Investigations										
Analyzing and Interpreting Data										
Using Mathematics and Computational Thinking										
Constructing Explanations and Designing Solutions										
Engaging in Argument from Evidence										
Obtaining, Evaluating, and Communicating Information										

Crosscutting Concepts Assessment Opportunities

Grade K	MATERIALS AND FORCES			TREES AND WEATHER			ANIMALS TWO BY TWO			
CCC	INV. 1	INV. 2	INV. 3	INV. 1	INV. 2	INV. 3	INV. 1	INV. 2	INV. 3	INV. 4
Patterns										
Cause and Effect										
Scale, Proportion, and Quantity										
Systems and System Models										
Energy and Matter										
Structure and Function										
Stability and Change										

Detail Correlation for Idaho Content Standards – Science Grades K-5

Grade 1		
1-PS-1.1 (Essential): With guidance and support, plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate.	Disciplinary Core Ideas PS4.A: Wave Properties Science and Engineering Practices Planning and Carrying Out Investigations Crosscutting Concepts Cause and Effect	SOUND AND LIGHT Investigation 1, Parts 1 and 2 Investigation 2, Parts 1 and 2 Side Trip 1
1-PS-1.2: Make observations to construct an evidence-based explanation that objects in darkness can be seen only when illuminated.	Disciplinary Core Ideas PS4.B: Electromagnetic Radiation Science and Engineering Practices Constructing Explanations and Designing Solutions Crosscutting Concepts Cause and Effect	SOUND AND LIGHT Investigation 4, Part 2 Side Trip 2
1-PS-1.3 (Essential): With guidance and support, plan and conduct investigations to determine the effect of placing materials in the path of a beam of light.	Disciplinary Core Ideas PS4.B: Electromagnetic Radiation Science and Engineering Practices Planning and Evaluating Information Crosscutting Concepts Cause and Effect	SOUND AND LIGHT Investigation 3, Parts 1 and 2 Investigation 4, Parts 1-3
1-PS-1.4 (Essential): Design and build a device that used light or sound to communicate over a distance.*	Disciplinary Core Ideas PS4.C: Information Technologies and Instrumentation Science and Engineering Practices Constructing Explanations and Designing Solutions Crosscutting Concepts Cause and Effect	SOUND AND LIGHT Investigation 2, Part 2
1-LS-1.1 (Essential): Design and build a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.*	Disciplinary Core Ideas LS1.A: Structure and Function LS1.D: Information Processing Science and Engineering Practices Constructing Explanations and Designing Solutions Crosscutting Concepts Structure and Function	PLANTS AND ANIMALS Investigation 3, Part 1
1-LS-1.2: Obtain information to identify patterns of behavior in parents and offspring that help offspring survive.	Disciplinary Core Ideas LS1.B: Growth and Development of Organisms Science and Engineering Practices Obtaining, Evaluating, and Communicating Information Crosscutting Concepts Patterns	PLANTS AND ANIMALS Investigation 2, Part 2

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1-LS-1.3: Use classification supported by evidence to differentiate between living and non-living items.	Disciplinary Core Ideas LS1.C: Organization for Matter and Energy Flow in Organisms Science and Engineering Practices Obtaining, Evaluating, and Communicating Information Crosscutting Concepts Patterns	PLANTS AND ANIMALS NG Edition Animals Two by Two Student Science Resources article, "Living and Nonliving."
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**This performance expectation integrates traditional science content with engineering through a practice or disciplinary*

Grade 1

1-LS-2.1 (Essential): Make observations to construct an evidence-based account that offspring are similar to, but not identical to, their parents.	Disciplinary Core Ideas LS3.A: Inheritance of Traits LS3.B: Variation of Traits Science and Engineering Practices Constructing Explanations and Designing Solutions Crosscutting Concepts Patterns	PLANTS AND ANIMALS Investigation 1, Parts 1 and 2 Investigation 2, Parts 1 and 2
1-ESS-1.1 (Essential): Use observations of the sun, moon, and stars to describe patterns that can be predicted.	Disciplinary Core Ideas ESS1.A: The Universe and Its Stars Science and Engineering Practices Analyzing and Interpreting Data Crosscutting Concepts Patterns	CHANGES IN THE SKY Investigation 1, Parts 1-3 Investigation 2, Parts 1 and 2
1-ESS-1.2 (Essential): Make observations at different times of year to relate the amount of daylight to the time of year.	Disciplinary Core Ideas ESS1.B: Earth and the Solar System Science and Engineering Practices Planning and Carrying Out Investigations Crosscutting Concepts Patterns	SOUND AND LIGHT Investigation 3, Part 1
Grade 1 Engineering Correlations		
K-2-ETS1-1: 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.	Disciplinary Core Ideas ETS1.A: Defining and Delimiting Engineering Problems Science and Engineering Practices Asking Questions and Defining Problems Crosscutting Concepts Structure and Function	SOUND AND LIGHT Investigation 2, Part 2 Investigation 4, Part 3 PLANTS AND ANIMALS Investigation 3, Part 1

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K-2-ETS1-2: 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.	Disciplinary Core Ideas ETS1.B: Developing Possible Solutions Science and Engineering Practices Developing and Using Models Crosscutting Concepts Structure and Function	SOUND AND LIGHT Investigation 2, Part 2 Investigation 4, Part 3 Side Trip 1 PLANTS AND ANIMALS Investigation 3, Part 1
K-2-ETS1-3: Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.	Disciplinary Core Ideas ETS1.C: Optimizing the Design Solution Science and Engineering Practices Analyzing and Interpreting Data Crosscutting Concepts Structure and Function	SOUND AND LIGHT Investigation 2, Part 2

**This performance expectation integrates traditional science content with engineering through a practice or disciplinary core idea.*

Disciplinary Core Ideas Assessment Opportunities

Grade 1	SOUND AND LIGHT				CHANGES IN THE SKY			PLANTS AND ANIMALS		
DCI	INV. 1	INV. 2	INV. 3	INV. 4	INV. 1	INV. 2	INV. 3	INV. 1	INV. 2	INV. 3
PS4.A										
PS4.B										
PS4.C										
LS1.A										
LS1.B										
LS3.A										
LS3.B										
ESS1.A										
ESS1.B										
ETS1.A										
ETS1.B										
ETS1.C										

Science and Engineering Practices Assessment Opportunities

Grade 1	SOUND AND LIGHT				CHANGES IN THE SKY			PLANTS AND ANIMALS		
SEP	INV. 1	INV. 2	INV. 3	INV. 4	INV. 1	INV. 2	INV. 3	INV. 1	INV. 2	INV. 3
Asking Questions and Defining Problems										
Developing and Using Models										
Planning and Carrying Out Investigations										
Analyzing and Interpreting Data										
Using Mathematics and Computational Thinking										
Constructing Explanations and Designing Solutions										
Engaging in Argument from Evidence										
Obtaining, Evaluating, and Communicating Information										

Crosscutting Concepts Assessment Opportunities

Grade 1	SOUND AND LIGHT				CHANGES IN THE SKY			PLANTS AND ANIMALS		
CCC	INV. 1	INV. 2	INV. 3	INV. 4	INV. 1	INV. 2	INV. 3	INV. 1	INV. 2	INV. 3
Patterns										
Cause and Effect										
Scale, Proportion, and Quantity										
Systems and System Models										
Structure and Function										
Stability and Change										

Detail Correlation for Idaho Content Standards – Science Grades K-5

Grade 2		
2-PS-1.1 (Essential): Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.	Disciplinary Core Ideas PS1.A: Structure and Properties of Matter Science and Engineering Practices Planning and Carrying Out Investigations Crosscutting Concepts Patterns	SOLIDS AND LIQUIDS Investigation 1, Parts 1 and 2 Investigation 2, Parts 1-3 Investigation 3, Parts 1-3 WATER AND LANDFORMS Investigation 1, Parts 1 and 2 Investigation 2, Parts 1 and 2
2-PS-1.2: Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose.*	Disciplinary Core Ideas PS1.A: Structure and Properties of Matter Science and Engineering Practices Analyzing and Interpreting Data Crosscutting Concepts Cause and Effect	SOLIDS AND LIQUIDS Investigation 1, Part 3 Side Trip 1
2-PS-1.3: Make observations to construct an evidence-based argument that objects, when disassembled, may be used to create new objects using the same set of components.	Disciplinary Core Ideas PS1.A: Structure and Properties of Matter Science and Engineering Practices Constructing Explanations and Designing Solutions Crosscutting Concepts Energy and Matter	SOLIDS AND LIQUIDS Investigation 1, Part 3
2-PS-1.4 (Essential): Construct an argument with evidence that some changes caused by heating or cooling can be reversed and some cannot.	Disciplinary Core Ideas PS1.B: Chemical Reactions Science and Engineering Practices Engaging in Argument from Evidence Crosscutting Concepts Cause and Effect	SOLIDS AND LIQUIDS Investigation 3, Parts 2 and 3
2-LS-1.1 (Essential): Plan and conduct an investigation to determine the impact of light and water on the growth of plants.	Disciplinary Core Ideas LS2.A: Interdependent Relationships in Ecosystems Science and Engineering Practices Planning and Carrying Out Investigations Crosscutting Concepts Cause and Effect	INSECTS AND PLANTS Investigation 2, Parts 1 and 2 Side Trip 2
2-LS-1.2 (Essential): Develop a simple model that mimics the function of an animals in dispersing seeds or pollinating plants.*	Disciplinary Core Ideas LS2.A: Interdependent Relationships in Ecosystems ETS1.B: Developing Possible Solutions Science and Engineering Practices Developing and Using Models Crosscutting Concepts Structure and Function	INSECTS AND PLANTS Investigation 2, Part 3 Investigation 3, Part 2

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2-LS-4.1 (Essential): Make observations of plants and animals to compare the diversity of life in different habitats.	Disciplinary Core Ideas LS4.D: Biodiversity and Humans Science and Engineering Practices Planning and Carrying Out Investigations Crosscutting Concepts Not explicitly stated	INSECTS AND PLANTS Investigation 1, Parts 1-3 Investigation 3, Part 1
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Grade 2		
2-ESS-1.1: Use information from several sources to provide evidence that Earth events can occur quickly or slowly.	Disciplinary Core Ideas ESS1.C: The History of Planet Earth Science and Engineering Practices Constructing Explanations and Designing Solutions Crosscutting Concepts Stability and Change	WATER AND LANDFORMS Investigation 1, Parts 1 and 2 Investigation 2, Parts 1 and 2 WATER AND LANDFORMS Investigation 3, Parts 1 and 2
2-ESS-2.1 (Essential): Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land.*	Disciplinary Core Ideas ESS2.A: Earth Materials and Systems ETS1.C: Optimizing the Design Solution Science and Engineering Practices Constructing Explanations and Designing Solutions Crosscutting Concepts Stability and Change	WATER AND LANDFORMS Investigation 3, Part 1
2-ESS-2.2 (Essential): Develop a model to represent the shapes and kinds of land and bodies of water in an area.	Disciplinary Core Ideas ESS2.B: Plate Tectonics and Large-Scale System Interactions Science and Engineering Practices Developing and Using Models Crosscutting Concepts Patterns	WATER AND LANDFORMS Investigation 4, Part 2
2-ESS-2.3: Obtain information to identify where water is found on Earth and that it can be solid or liquid.	Disciplinary Core Ideas ESS2.C: The Roles of Water in Earth's Surface Processes Science and Engineering Practices Obtaining, Evaluating, and Communicating Information Crosscutting Concepts Patterns	WATER AND LANDFORMS Investigation 4, Part 1
Grade 2 Engineering Correlations		
K-2-ETS1-1: 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.	Disciplinary Core Ideas ETS1.A: Defining and Delimiting Engineering Problems Science and Engineering Practices Asking Questions and Defining Problems Crosscutting Concepts Structure and Function	SOLIDS AND LIQUIDS Investigation 1, Part 3

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K-2-ETS1-2: 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.	Disciplinary Core Ideas ETS1.B: Developing Possible Solutions Science and Engineering Practices Developing and Using Models Crosscutting Concepts Structure and Function	SOLIDS AND LIQUIDS Investigation 1, Part 3 INSECTS AND PLANTS Investigation 2, Part 3 Investigation 4, Part 2
K-2-ETS1-3: Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.	Disciplinary Core Ideas ETS1.C: Optimizing the Design Solution Science and Engineering Practices Analyzing and Interpreting Data Crosscutting Concepts Structure and Function	SOLIDS AND LIQUIDS Investigation 1, Part 3 WATER AND LANDFORMS Investigation 3, Part 1

**This performance expectation integrates traditional science content with engineering through a practice or disciplinary core idea.*

Disciplinary Core Ideas Assessment Opportunities

Grade 2	SOLIDS AND LIQUIDS			WATER AND LANDFORMS				INSECTS AND PLANTS		
DCI	INV. 1	INV. 2	INV. 3	INV. 1	INV. 2	INV. 3	INV. 4	INV. 1	INV. 2	INV. 3
PS1.A										
PS1.B										
LS1.A										
LS1.B										
LS2.A										
LS4.D										
ESS1.C										
ESS2.A										
ESS2.B										
ESS2.C										
ETS1.A										
ETS1.B										
ETS1.C										

Science and Engineering Practices Assessment Opportunities

Grade 2	SOLIDS AND LIQUIDS			WATER AND LANDFORMS				INSECTS AND PLANTS		
SEP	INV. 1	INV. 2	INV. 3	INV. 1	INV. 2	INV. 3	INV. 4	INV. 1	INV. 2	INV. 3
Asking Questions and Defining Problems										
Developing and Using Models										
Planning and Carrying Out Investigations										
Analyzing and Interpreting Data										
Using Mathematics and Computational Thinking										
Constructing Explanations and Designing Solutions										
Engaging in Argument from Evidence										
Obtaining, Evaluating, and Communicating Information										

Crosscutting Concepts Assessment Opportunities

Grade 2	SOLIDS AND LIQUIDS			WATER AND LANDFORMS				INSECTS AND PLANTS		
CCC	INV. 1	INV. 2	INV. 3	INV. 1	INV. 2	INV. 3	INV. 4	INV. 1	INV. 2	INV. 3
Patterns										
Cause and Effect										
Scale, Proportion, and Quantity										
Systems and System Models										
Energy and Matter										
Structure and Function										
Stability and Change										

Detail Correlation for Idaho Content Standards – Science Grades K-5

Grade 3		
3-PS-1.1 (Essential): Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object.	Disciplinary Core Ideas PS2.A: Forces and Motion PS2.B: Types of Interactions Science and Engineering Practices Planning and Carrying Out Investigations Crosscutting Concepts Cause and Effect	MOTION Investigation 3, Parts 1-3
3-PS-1.2 (Essential): Make observations and/or measurements of an object's motion to provide evidence that a pattern can be used to predict future motion.	Disciplinary Core Ideas PS2.A: Forces and Motion Science and Engineering Practices Planning and Carrying Out Investigations Crosscutting Concepts Patterns	MOTION Investigation 1, Parts 2 and 3 Investigation 2, Parts 1-3
3-PS-1.3 (Essential): Ask questions to determine cause and effect relationships of static electricity or magnetic interactions between two objects not in contact with each other.	Disciplinary Core Ideas PS2.B: Types of Interactions Science and Engineering Practices Asking Questions and Defining Solutions Crosscutting Concepts Cause and Effect	MOTION Investigation 1, Parts 1-3
3-PS-1.4: Define a problem that can be solved by applying scientific ideas about magnets.*	Disciplinary Core Ideas PS2.B: Types of Interactions Science and Engineering Practices Asking Questions and Defining Problems Crosscutting Concepts Interdependence of Science, Engineering, and Technology	MOTION Investigation 3, Part 4
3-LS-1.1 (Essential): Develop models to demonstrate that living things, although they have unique and diverse life cycles, all have birth, growth, reproduction, and death in common.	Disciplinary Core Ideas LS1.B: Growth and Development of Organisms Science and Engineering Practices Developing and Using Models Crosscutting Concepts Patterns	STRUCTURES OF LIFE Investigation 1, Parts 1-3 Investigation 2, Parts 1 and 2 Investigation 3, Parts 1 and 2
3-LS-2.1: Construct an argument that some animals form groups that help members survive.	Disciplinary Core Ideas LS2.D: Social Interactions and Group Behavior Science and Engineering Practices Engaging in Argument from Evidence Crosscutting Concepts Cause and Effect	STRUCTURES OF LIFE Investigation 3, Part 3

Detail Correlation for Idaho Content Standards – Science Grades K-5

3-LS-3.1 (Essential): Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms.	Disciplinary Core Ideas LS3.A: Inheritance of Traits LS3.B: Variation of Traits Science and Engineering Practices Analyzing and Interpreting Data Crosscutting Concepts Patterns	STRUCTURES OF LIFE Investigation 2, Parts 1 and 2 Investigation 3, Part 2 Investigation 4, Part 1
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Grade 3

3-LS-3.2 (Essential): Use evidence to support the explanation that traits can be influenced by the environment.	Disciplinary Core Ideas LS3.A: Inheritance of Traits LS3.B: Variation of Traits Science and Engineering Practices Constructing Explanations and Designing Solutions Crosscutting Concepts Cause and Effect	STRUCTURES OF LIFE Investigation 2, Part 2
3-LS-4.3 (Essential): Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.	Disciplinary Core Ideas LS4.C: Adaptation Science and Engineering Practices Engaging in Argument from Evidence Crosscutting Concepts Interdependence of Science, Engineering, and Technology	STRUCTURES OF LIFE Investigation 3, Part 2 Investigation 4, Parts 1 and 2
3-ESS-1.1 (Essential): Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season.	Disciplinary Core Ideas ESS2.D: Weather and Climate Science and Engineering Practices Analyzing and Interpreting Data Crosscutting Concepts Patterns	WATER AND CLIMATE Investigation 2, Parts 1 and 2 Investigation 4, Part 1
3-ESS-1.2 (Essential): Obtain and combine information to describe climates in different regions of the world.	Disciplinary Core Ideas ESS2.D: Weather and Climate Science and Engineering Practices Obtaining, Evaluating, and Communicating Information Crosscutting Concepts Patterns	WATER AND CLIMATE Investigation 4, Part 2

**This performance expectation integrates traditional science content with engineering through a practice or disciplinary core idea.*

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Grade 3		
3-ESS-2.1 (Essential): Make a claim about the merit of a design solution that reduces the impacts of a weather-related hazard.*	Disciplinary Core Ideas ESS3.B: Natural Hazards Science and Engineering Practices Engaging in Argument from Evidence Crosscutting Concepts Cause and Effect	WATER AND CLIMATE Investigation 1, Parts 1-4 (foundational) Investigation 3, Parts 1-4
Grade 3 Engineering Correlations		
3-5-ETS1-1: Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.	Disciplinary Core Ideas ETS1.A: Defining and Delimiting Engineering Problems Science and Engineering Practices Asking Questions and Defining Problems Crosscutting Concepts Influence of Engineering, Technology, and Science on Society and the Natural World	MOTION Investigation 3, Parts 1 and 4
3-5-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.	Disciplinary Core Ideas ETS1.B: Developing Possible Solutions Science and Engineering Practices Constructing Explanations and Designing Solutions Crosscutting Concepts Influence of Engineering, Technology, and Science on Society and the Natural World	MOTION Investigation 3, Parts 2 and 4
3-5-ETS1-3: Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.	Disciplinary Core Ideas ETS1.C: Optimizing the Design Solution Science and Engineering Practices Planning and Carrying Out Investigations Crosscutting Concepts None explicitly stated	MOTION Investigation 3, Part 3

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Disciplinary Core Ideas Assessment Opportunities

Grade 3	WATER AND CLIMATE				MOTION			STRUCTURES OF LIFE			
DCI	INV. 1	INV. 2	INV. 3	INV. 4	INV. 1	INV. 2	INV. 3	INV. 1	INV. 2	INV. 3	INV. 4
PS2.A											
PS2.B											
LS1.A											
LS1.B											
LS2.C											
LS2.D											
LS3.A											
LS3.B											
LS4.A											
LS4.B											
LS4.C											
LS4.D											
ESS2.C											
ESS2.D											
ESS3.B											
ETS1.A											
ETS1.B											
ETS1.C											

Science and Engineering Practices Assessment Opportunities

Grade 3	WATER AND CLIMATE				MOTION			STRUCTURES OF LIFE			
SEP	INV. 1	INV. 2	INV. 3	INV. 4	INV. 1	INV. 2	INV. 3	INV. 1	INV. 2	INV. 3	INV. 4
Asking Questions and Defining Problems											
Developing and Using Models											
Planning and Carrying Out Investigations											
Analyzing and Interpreting Data											
Using Mathematics and Computational Thinking											
Constructing Explanations and Designing Solutions											
Engaging in Argument from Evidence											
Obtaining, Evaluating, and Communicating Information											

Crosscutting Concepts Assessment Opportunities

Grade 3	WATER AND CLIMATE				MOTION			STRUCTURES OF LIFE			
CCC	INV. 1	INV. 2	INV. 3	INV. 4	INV. 1	INV. 2	INV. 3	INV. 1	INV. 2	INV. 3	INV. 4
Patterns											
Cause and Effect											
Scale, Proportion, and Quantity											
Systems and System Models											
Structure and Function											

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Grade 4		
4-PS-1.1: Use evidence to construct an explanation relating the speed of an object to the energy of that object.	Disciplinary Core Ideas PS3.A: Definitions of Energy Science and Engineering Practices Constructing Explanations and Designing Solutions Crosscutting Concepts Energy and Matter	ENERGY Investigation 3, Parts 1 and 2
4-PS-1.2 (Essential): Make observations to provide evidence that energy can be transferred by heat, sound, light, and electric currents.	Disciplinary Core Ideas PS3.A: Definitions of Energy PS3.B: Conservation of Energy and Energy Transfer Science and Engineering Practices Planning and Carrying Out Investigations Crosscutting Concepts Energy and Matter	ENERGY Investigation 1, Parts 1-3 Investigation 2, Parts 1-3
4-PS-1.3 (Essential): Ask questions and predict outcomes about the changes in energy that occur when objects collide.	Disciplinary Core Ideas PS3.A: Definitions of Energy PS3.B: Conservation of Energy and Energy Transfer PS3.C: Relationship Between Energy and Forces Science and Engineering Practices Asking Questions and Defining Problems Crosscutting Concepts Energy and Matter	ENERGY Investigation 3, Part 2
4-PS-1.4 (Essential): Apply scientific ideas to design, test, and refine a device that converts energy from one form to another.*	Disciplinary Core Ideas PS3.B: Conservation of Energy and Energy Transfer PS3.D: Energy in Chemical Processes and Everyday Life Science and Engineering Practices Constructing Explanations and Designing Solutions Crosscutting Concepts Energy and Matter	ENERGY Investigation 1, Parts 2 and 3 Investigation 2, Parts 1 and 2
4-PS-2.1 (Essential): Develop a model of waves to describe patterns in terms of amplitude and wavelength and that waves can cause objects to move.	Disciplinary Core Ideas PS4.A: Wave Properties Science and Engineering Practices Developing and Using Models Crosscutting Concepts Patterns	ENERGY Investigation 4, Part 2
4-PS-2.2 (Essential): Develop a model to describe that light reflecting from objects and entering the eye allows objects to be seen.	Disciplinary Core Ideas PS4.B: Electromagnetic Radiation Science and Engineering Practices Developing and Using Models Crosscutting Concepts Patterns	ENERGY Investigation 4, Part 1

Detail Correlation for Idaho Content Standards – Science Grades K-5

4-PS-2.3 (Extended Essential with Assessment as Optional): Generate and compare multiple solutions that use patterns to transfer information.*	Disciplinary Core Ideas PS4.C: Information Technologies and Instrumentation Science and Engineering Practices Constructing Explanations and Designing Solutions Crosscutting Concepts Patterns	ENERGY Investigation 2, Parts 2 and 3
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Grade 4		
4-LS-1.1: Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.	Disciplinary Core Ideas LS1.A: Structure and Function Science and Engineering Practices Engaging in Argument from Evidence Crosscutting Concepts Systems and System Models	SENSES AND SURVIVAL Investigation 1, Parts 1-2 Investigation 2, Parts 1 and 2 Investigation 3, Parts 1 and 2
4-LS-1.2 (Essential): Use a model to describe that animals receive different types of information through their senses, process that information in their brain, and respond to the information in different ways.	Disciplinary Core Ideas LS1.D: Information Processing Science and Engineering Practices Engaging in Argument from Evidence Crosscutting Concepts System and System Models	SENSES AND SURVIVAL Investigation 1, Parts 1-3
4-ESS-1.1 (Essential): Identify evidence from patterns in rock formations and fossils in rock layers for changes in landscape over time to support an explanation for changes in a landscape over time.	Disciplinary Core Ideas ESS1.C: The History of Planet Earth Science and Engineering Practices Constructing Explanations and Designing Solutions Crosscutting Concepts Patterns	SOILS, ROCKS, AND LANDFORMS Investigation 4, Part 2
4-ESS-2.1 (Essential): Make observations and/or measurements to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind, or vegetation.	Disciplinary Core Ideas ESS2.A: Earth Materials and Systems ESS2.E: Biogeology Science and Engineering Practices Planning and Carrying Out Investigations Crosscutting Concepts Cause and Effect	SOILS, ROCKS, AND LANDFORMS Investigation 1, Parts 1 and 2 Investigation 2, Parts 1-3
4-ESS-2.2 (Essential): Analyze and interpret data from maps to describe patterns of Earth's features.	Disciplinary Core Ideas ESS2.B: Plate Tectonics and Large-Scale System Interactions Science and Engineering Practices Analyzing and Interpreting Data Crosscutting Concepts Patterns	SOILS, ROCKS, AND LANDFORMS Investigation 3, Parts 1 and 2 Investigation 4, Part 1

Detail Correlation for Idaho Content Standards – Science Grades K-5

4-ESS-3.1 (Essential): Obtain and combine information to describe that energy and fuels are derived from natural resources and their uses affect the environment.	Disciplinary Core Ideas ESS3.A: Natural Resources Science and Engineering Practices Obtaining, Evaluating, and Communicating Information Crosscutting Concepts Cause and Effect	Energy Investigation 1, Part 2
4-ESS-3.2 (Essential): Generate and compare multiple solutions to reduce the impacts of natural Earth processes on humans.*	Disciplinary Core Ideas ESS3.B: Natural Hazards Science and Engineering Practices Constructing Explanations and Designing Solutions Crosscutting Concepts Cause and Effect	SOILS, ROCKS, AND LANDFORMS Investigation 2, Part 3 Investigation 3, Part 2

*This performance expectation integrates traditional science content with engineering through a practice or disciplinary core idea.

Grade 4		
Grade 4 Engineering Correlations		
3-5-ETS1-1: Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.	Disciplinary Core Ideas ETS1.A: Defining and Delimiting Engineering Problems Science and Engineering Practices Asking Questions and Defining Problems Crosscutting Concepts Influence of Engineering, Technology, and Science on Society and the Natural World	ENERGY Investigation 1, Part 3 Investigation 2, Part 1 SENSES AND SURVIVAL Investigation 3, Part 1
3-5-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.	Disciplinary Core Ideas ETS1.B: Developing Possible Solutions Science and Engineering Practices Constructing Explanations and Designing Solutions Crosscutting Concepts Influence of Engineering, Technology, and Science on Society and the Natural World	ENERGY Investigation 2, Part 2 SOILS, ROCKS, AND LANDFORMS Investigation 2, Part 3
3-5-ETS1-3: Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.	Disciplinary Core Ideas ETS1.C: Optimizing the Design Solution Science and Engineering Practices Planning and Carrying Out Investigations Crosscutting Concepts Influence of Engineering, Technology, and Science on Society and the Natural World	ENERGY Investigation 2, Part 2

Disciplinary Core Ideas Assessment Opportunities

Grade 4	SOILS, ROCKS, AND LANDFORMS				ENERGY				SENSES AND SURVIVAL		
DCI	INV. 1	INV. 2	INV. 3	INV. 4	INV. 1	INV. 2	INV. 3	INV. 4	INV. 1	INV. 2	INV. 3
PS3.A											
PS3.B											
PS3.C											
PS3.D											
PS4.A											
PS4.B											
PS4.C											
LS1.A											
LS1.D											
ESS1.C											
ESS2.A											
ESS2.B											
ESS2.E											
ESS3.A											
ESS3.B											
ETS1.A											
ETS1.B											
ETS1.C											

Science and Engineering Practices Assessment Opportunities

Grade 4	SOILS, ROCKS, AND LANDFORMS				ENERGY				SENSES AND SURVIVAL		
SEP	INV. 1	INV. 2	INV. 3	INV. 4	INV. 1	INV. 2	INV. 3	INV. 4	INV. 1	INV. 2	INV. 3
Asking Questions and Defining Problems											
Developing and Using Models											
Planning and Carrying Out Investigations											
Analyzing and Interpreting Data											
Using Mathematics and Computational Thinking											
Constructing Explanations and Designing Solutions											
Engaging in Argument from Evidence											
Obtaining, Evaluating, and Communicating Information											

Crosscutting Concepts Assessment Opportunities

Grade 4	SOILS, ROCKS, AND LANDFORMS				ENERGY				SENSES AND SURVIVAL		
CCC	INV. 1	INV. 2	INV. 3	INV. 4	INV. 1	INV. 2	INV. 3	INV. 4	INV. 1	INV. 2	INV. 3
Patterns											
Cause and Effect											
Scale, Proportion, and Quantity											
Systems and System Models											
Energy and Matter in Systems											
Structure and Function											
Stability and Change of Systems											

Detail Correlation for Idaho Content Standards – Science Grades K-5

Grade 5		
5-PS-1.1 (Essential): Develop a model to describe that matter is made of particles too small to be seen.	Disciplinary Core Ideas PS1.A: Structure and Properties of Matter Science and Engineering Practices Developing and Using Models Crosscutting Concepts Scale, Proportion, and Quantity	MIXTURES AND SOLUTIONS Investigation 1, Parts 1-4 Investigation 2, Parts 1 and 2 EARTH AND SUN Investigation 1, Parts 1 and 2
5-PS-1.2 (Essential): Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved.	Disciplinary Core Ideas PS1.A: Structure and Properties of Matter PS1.B: Chemical Reactions Science and Engineering Practices Using Mathematics and Computational Thinking Crosscutting Concepts Scale, Proportion, and Quantity	MIXTURES AND SOLUTIONS Investigation 1, Parts 2 and 4
5-PS-1.3: Make observations and measurements to identify materials based on their properties.	Disciplinary Core Ideas PS1.A: Structure and Properties of Matter Science and Engineering Practices Planning and Carrying Out Investigations Crosscutting Concepts Scale, Proportion, and Quantity	MIXTURES AND SOLUTIONS Investigation 3, Parts 1-3
5-PS-1.4 (Essential): Conduct an investigation to determine whether the mixing of two or more substances results in new substances.	Disciplinary Core Ideas PS1.B: Chemical Reactions Science and Engineering Practices Planning and Carrying Out Investigations Crosscutting Concepts Cause and Effect	MIXTURES AND SOLUTIONS Investigation 4, Parts 1 and 2
5-PS-2.1 (Essential): Support an argument that Earth's gravitational force exerted on objects is directed downward.	Disciplinary Core Ideas PS2.B: Types of Interactions Science and Engineering Practices Engaging in Argument from Evidence Crosscutting Concepts Cause and Effect	EARTH AND SUN Investigation 4, Part 1
5-PS-3.1 (Essential): 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.	Disciplinary Core Ideas PS3.D: Energy in Chemical Processes and Everyday Life LS1.C: Organization for Matter and Energy Flow in Organisms Science and Engineering Practices Developing and Using Models Crosscutting Concepts Energy and Matter	LIVING SYSTEMS Investigation 2, Parts 1 and 2

Detail Correlation for Idaho Content Standards – Science Grades K-5

Grade 5		
5-LS-1.1 (Essential): Support an argument that plants get what they need for growth chiefly from air, water, and energy from the Sun.	Disciplinary Core Ideas LS1.C: Organization for Matter and Energy Flow in Organisms Science and Engineering Practices Engaging in Argument from Evidence Crosscutting Concepts Energy and Matter	LIVING SYSTEMS Investigation 2, Part 1
5-LS-2.1 (Essential): Analyze and interpret data from fossils to provide evidence of the types of organisms and the environments that existed long ago and compare those to living organisms and their environments.	Disciplinary Core Ideas LS4.A: Evidence of Common Ancestry and Diversity Science and Engineering Practices Analyzing and Interpreting Data Crosscutting Concepts Scale, Proportion, and Quantity	STRUCTURES OF LIFE Investigation 4, Part 2 (Digital only)
5-LS-2.2 (Essential): Construct an argument from evidence for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing.	Disciplinary Core Ideas LS4.B: Natural Selection Science and Engineering Practices Constructing Explanations and Designing Solutions Crosscutting Concepts Cause and Effect	STRUCTURES OF LIFE Investigation 4, Part 1 (Digital only)
3-LS-2.3 (Essential): Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals living there may change.*	Disciplinary Core Ideas LS2.C: Ecosystem Dynamics, Functioning, and Resilience Science and Engineering Practices Engaging in Argument from Evidence Crosscutting Concepts Systems and System Models	STRUCTURES OF LIFE Investigation 4, Part 1 (Digital only)
5-LS-2.4 (Essential): Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.	Disciplinary Core Ideas LS2.A: Interdependent Relationships in Ecosystems Science and Engineering Practices Developing and Using Models Crosscutting Concepts System and System Models	LIVING SYSTEMS Investigation 1, Parts 1 and 2 Investigation 3, Parts 1-3 Investigation 4, Part 1
5-ESS-1.1 (Essential): Support an argument that differences in the apparent brightness of the Sun compared to other stars is due to their relative distances from the Earth.	Disciplinary Core Ideas ESS1.A: The Universe and Its Stars Science and Engineering Practices Engaging in Argument from Evidence Crosscutting Concepts Scale, Proportion, and Quantity	EARTH AND SUN Investigation 4, Parts 2 and 3

Detail Correlation for Idaho Content Standards – Science Grades K-5

5-ESS-1.2 (Essential): 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.	Disciplinary Core Ideas ESS1.B: Earth and the Solar System Science and Engineering Practices Analyzing and Interpreting Data Crosscutting Concepts Patterns	EARTH AND SUN Investigation 3, Parts 1 and 2 Investigation 4, Parts 2 and 3
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**This performance expectation integrates traditional science content with engineering through a practice or disciplinary core idea.*

Grade 5		
5-ESS-2.1 (Essential): Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.	Disciplinary Core Ideas ESS2.A: Earth Materials and Systems Science and Engineering Practices Developing and Using Models Crosscutting Concepts System and System Models	EARTH AND SUN Investigation 1, Part 2 Investigation 2, Part 1 LIVING SYSTEMS Investigation 2, Part 1 Investigation 3, Parts 1-3 Investigation 4, Part 1
5-ESS-2.2 (Essential): Describe and graph the relative amounts of fresh and salt water in various reservoirs, to interpret and analyze the distribution of water on Earth.	Disciplinary Core Ideas ESS2.C: The Roles of Water in Earth's Surface Processes Science and Engineering Practices Using Mathematics and Computational Thinking Crosscutting Concepts Scale, Proportion, and Quantity	EARTH AND SUN Investigation 2, Part 1
5-ESS-3.1 (Essential): Obtain and combine information about ways communities protect the Earth's resources and environment using scientific ideas.	Disciplinary Core Ideas ESS3.C: Human Impacts on Earth Systems Science and Engineering Practices Obtaining, Evaluating, and Communicating Information Crosscutting Concepts Systems and System Models	MIXTURES AND SOLUTIONS Investigation 2, Part 2 Investigation 3, Part 3 EARTH AND SUN Investigation 2, Part 2 LIVING SYSTEMS Investigation 3, Parts 2 and 3 Investigation 4, Part 1
Grade 5 Engineering Correlations		
3-5-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.	Disciplinary Core Ideas ETS1.B: Developing Possible Solutions Science and Engineering Practices Constructing Explanations and Designing Solutions Crosscutting Concepts Influence of Engineering, Technology, and Science on Society and the Natural World	MIXTURES AND SOLUTIONS Investigation 1, Part 3 Investigation 3, Part 3

Detail Correlation for Idaho Content Standards – Science Grades K-5

Disciplinary Core Ideas Assessment Opportunities

Grade 5	EARTH AND SUN				MIXTURES AND SOLUTIONS				LIVING SYSTEMS			
DCI	INV. 1	INV. 2	INV. 3	INV. 4	INV. 1	INV. 2	INV. 3	INV. 4	INV. 1	INV. 2	INV. 3	INV. 4
PS1.A												
PS1.B												
PS2.B												
PS3.D												
LS1.C												
LS2.A												
LS2.B												
ESS1.A												
ESS1.B												
ESS2.A												
ESS2.C												
ESS3.C												
ETS1.A												
ETS1.B												
ETS1.C												

Science and Engineering Practices Assessment Opportunities

Grade 5	EARTH AND SUN				MIXTURES AND SOLUTIONS				LIVING SYSTEMS			
SEP	INV. 1	INV. 2	INV. 3	INV. 4	INV. 1	INV. 2	INV. 3	INV. 4	INV. 1	INV. 2	INV. 3	INV. 4
Asking Questions and Defining Problems												
Developing and Using Models												
Planning and Carrying Out Investigations												
Analyzing and Interpreting Data												
Using Mathematics and Computational Thinking												
Constructing Explanations and Designing Solutions												
Engaging in Argument from Evidence												
Obtaining, Evaluating, and Communicating Information												

Crosscutting Concepts Assessment Opportunities

Grade 5	EARTH AND SUN				MIXTURES AND SOLUTIONS				LIVING SYSTEMS			
CCC	INV. 1	INV. 2	INV. 3	INV. 4	INV. 1	INV. 2	INV. 3	INV. 4	INV. 1	INV. 2	INV. 3	INV. 4
Patterns												
Cause and Effect												
Scale, Proportion, and Quantity												
Systems and System Models												
Energy and Matter in Systems												
Structure and Function												
Stability and Change of Systems												