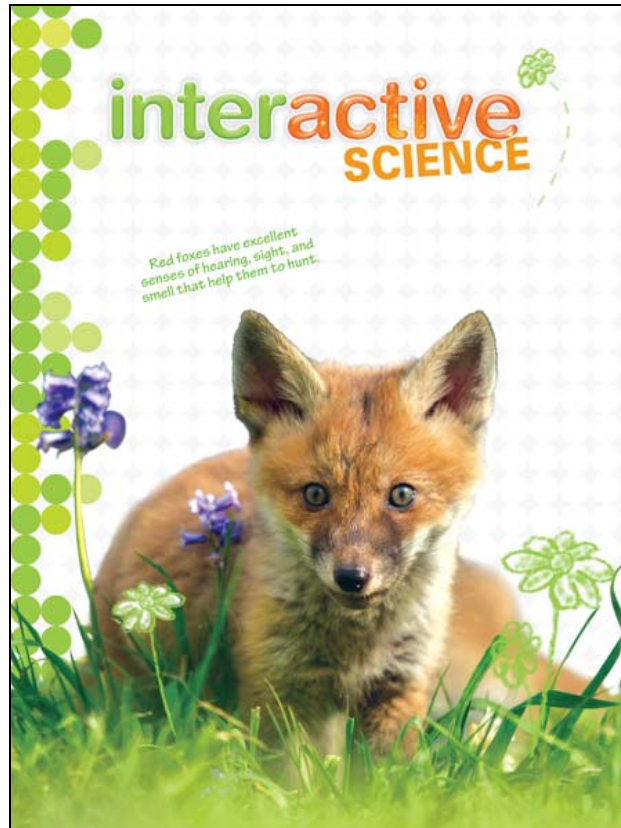


A Correlation of
Interactive Science
Grade 2, ©2016



To the
**Louisiana Student Standards for
Science**

A Correlation of Interactive Science, Grade 2, ©2016, to the Louisiana Student Standards for Science

Introduction

The following document indicates how closely ***Interactive Science, ©2016, Grades K-5***, supports the Louisiana Student Standards for Science, Grades K-5. Correlation references are to the Student Edition and Teacher Edition. Please note that the Kindergarten Student Edition text pages are two-sided; each singular page contains a corresponding Activity Page on the reverse side.

Interactive Science is an elementary science program that makes learning personal, engaging, and relevant for today's student. The program features an innovative Write-in Student Edition that enables students to become active participants in their learning and truly connect the Big Ideas of science to their world.

The 2016 editions of ***Interactive Science*** support the Next Generation Science Standards (NGSS) in several ways. In the Student Edition, lessons provide interactive opportunities for students to acquire the Disciplinary Core Ideas that are the building blocks of the NGSS Performance Expectations at each grade level. STEM Activities, Apply It! activities, Design It! Activities, and Performance-Based Assessments enable students to research, investigate, and apply Science and Engineering Practices to real-world problems in a meaningful way. In the Teacher's Edition, the NGSS Cross-Cutting Concepts that link across grade levels and across disciplines within grade levels are noted at the chapter level, and a detailed and focused Performance Expectation Activity is provided for each NGSS standard.

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Louisiana Student Standards for Science	Interactive Science, Grade 2 ©2016
2-PS1-1 MATTER AND ITS INTERACTIONS	
Performance Expectation	
Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.	TE Only: Chapter 1 Performance Expectation Activity, 61a
Clarification Statement	
Observations could include color, texture, hardness, or flexibility. Patterns could include the similar properties that different materials share.	
Science & Engineering Practices	
3. Planning and carrying out investigations: Planning and carrying out investigations to answer questions (science) or test solutions (engineering) to problems in K-2 builds on prior experiences and progresses to simple investigations, based on fair tests, which provide data to support explanations or design solutions.	
<ul style="list-style-type: none"> Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence to answer a question. 	SE/TE: 6-15, STEM Activity; 48-49, Investigate It!; 58-59, Apply It! 148-149, Investigate It!; 196-197, Investigate It! TE Only: 3, SEP: Planning and Carrying Out Investigations; 49a-49c, Activity Card Support; 59, Possible Extensions; 61a, Performance Expectation Activity; 197a-197c, Activity Card Support
Disciplinary Core Ideas	
STRUCTURE AND PROPERTIES OF MATTER	
Different kinds of matter exist and many of them can be either solid or liquid, depending on temperature. Matter can be described and classified by its observable properties. (LE.PS1A.c)	SE/TE: 16-23, Lesson 1; 24-29, Lesson 2; 36, Explore It!; 38, Cooling Matter; 41, Properties of Materials; 56, Chapter Review – Lessons 1, 2; 58-59, Apply It!; 60, Group Objects; 181, Classify TE Only: 2C, Reading; 2D, Social Studies; 2D, Writing; 2G-2H, Leveled Content Reader Support; 23b, Chapter 1 Test – Questions 2, 5; 29a, My Planet Diary; 43, Differentiated Instruction; 49, Teach for Understanding; 52, Differentiated Instruction; 57a, Chapter 1 Test – Question 1; 61a, Performance Expectation Activity; 61a, ELA/Literacy; 61a, Mathematics

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Crosscutting Concepts	
PATTERNS	
Patterns in the natural and human designed world can be observed, used to describe phenomena, and used as evidence.	SE/TE: 16, Explore It!; 18, At-Home Lab; 27, At-Home Lab; 36, Explore It!; 194, Record Data; 196-197, Investigate It! TE Only: 39a, Explore It!; 118G-118H, Leveled Content Reader Support; 197a-197c, Activity Card Support
2-PS1-2 MATTER AND ITS INTERACTIONS	
Performance Expectation	
Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose.	TE Only: Chapter 1 Performance Expectation Activity, 61b
Clarification Statement	
Examples of properties could include, strength, flexibility, hardness, texture, or absorbency.	
Science & Engineering Practices	
4. Analyzing and interpreting data: Analyzing data in K-2 builds on prior experiences and progresses to collecting, recording, and sharing observations.	
<ul style="list-style-type: none"> Analyze data from tests of an object or tool to determine if it works as intended. 	SE/TE: 12-15, STEM Activity; 49, Investigate It! TE Only: 49b, Investigate It!; 61b, Performance Expectation Activity
Disciplinary Core Ideas	
STRUCTURE AND PROPERTIES OF MATTER	
Different properties are suited to different purposes. (LE.PS1A.a)	SE/TE: 6-15, STEM Activity; 40-47, Lesson 5; 57, Chapter 1 Review – Lesson 5; 225, Choose Materials TE Only: 20, Professional Development Note; 22, Evaluate; 33, Professional Development Note; 42, Professional Development Note; 43, Differentiated Instruction; 47, Common Misconception; 47a, Explore It!; 47b, Lesson 5 Check – Questions 3, 4; 57b, Chapter 1 Test – Question 8; 61b, Performance Expectation Activity; 61b, ELA/Literacy; 225, 21 st Century Learning

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Crosscutting Concepts	
CAUSE AND EFFECT	
Simple tests can be designed to gather evidence to support or refute student ideas about causes.	SE/TE: 4, Try It!; 38, Lightning Lab; 58-59, Apply It!; 148-149, Investigate It!; 222, Explore It! TE Only: 23, Common Misconceptions; 58, Science Misconception; 149a-149d, Activity Card Support
2-PS1-3 MATTER AND ITS INTERACTIONS	
Performance Expectation	
Make observations to construct an evidence-based account of how an object made of a small set of pieces can be disassembled and made into a new object.	TE Only: Chapter 1 Performance Expectation Activity, 61c
Clarification Statement	
Examples of pieces could include blocks, building bricks, or other assorted small objects. Provide students with the same number of objects to create a different object.	
Science & Engineering Practices	
6. Constructing explanations and designing solutions: Constructing explanations (science) and designing solutions (engineering) in K-2 builds on prior experiences and progresses to the use of evidence and ideas in constructing evidence-based accounts of natural phenomena and designing solutions.	
<ul style="list-style-type: none"> Make observations (firsthand or from media) to construct an evidence-based account for natural phenomena. 	SE/TE: 4, Try It!; 18, At-Home Lab; 27, At-Home Lab; 48-49, Investigate It! TE Only: 49a-49c, Activity Card Support; 61c, Performance Expectation Activity
Disciplinary Core Ideas	
STRUCTURE AND PROPERTIES OF MATTER	
Different properties are suited to different purposes. (LE.PS1A.a)	SE/TE: 6-15, STEM Activity; 40-47, Lesson 5; 57, Chapter 1 Review – Lesson 5; 225, Choose Materials TE Only: 20, Professional Development Note; 22, Evaluate; 33, Professional Development Note; 42, Professional Development Note; 43, Differentiated Instruction; 47, Common Misconception; 47a, Explore It!; 47b, Lesson 5 Check – Questions 3, 4; 57b, Chapter 1 Test – Question 8; 61b, Performance Expectation Activity; 61b, ELA/Literacy; 225, 21 st Century Learning

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A great variety of objects can be built up from a small set of pieces. (LE.PS1A.b)	SE/TE: 32, Mold It, Fold It, Tear It, Bend It; 34, Mix and Separate Matter; 40-47, Lesson 5; 57, Chapter Review – Lesson 5; 61, Make a Presentation TE Only: 35a, Explore It!; 47a, Explore It!; 47b, Lesson 5 Check – Questions 3, 4; 61c, Performance Expectation Activity; 61c, ELA/Literacy
Crosscutting Concepts	
ENERGY AND MATTER	
Objects may break into smaller pieces, be put together into larger pieces, or change shapes.	SE/TE: 30-35, Lesson 3; 40-47, Lesson 5; 57, Chapter 1 Review - Lesson 3; 61, Make a Presentation TE Only: 2, CCC: Energy and Matter; 35a, Explore It!: 35b, Lesson 3 Check – Questions 1-4; 61c, Performance Expectation Activity; 61c, ELA/Literacy
2-PS1-4 MATTER AND ITS INTERACTIONS	
Performance Expectation	
Construct an argument with evidence that some changes caused by heating or cooling can be reversed and some cannot.	TE Only: Chapter 1 Performance Expectation Activity, 61d
Clarification Statement	
Demonstrations of reversible changes could include materials such as water, butter or crayons at different temperatures. Demonstrations of irreversible changes could include cooking an egg, freezing a plant leaf, or heating paper.	
Science & Engineering Practices	
7. Engaging in argument from evidence: Engaging in argument from evidence in K-2 builds on prior experiences and progresses to comparing ideas and representations about the natural and designed world(s).	
<ul style="list-style-type: none"> Construct an argument with evidence to support a claim. 	SE/TE: 30, Explore It!; 32, Draw; 33, Write; 188-191, Lesson 4 TE Only: 32-33 Explain; 35a, Explore It!; 61d, Performance Expectation Activity; 61d, ELA/Literacy; 191a, Explore It!; 191b, Lesson 4 Check – Questions 1-5

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Disciplinary Core Ideas	
CHEMICAL REACTIONS	
Heating or cooling a substance may cause changes that can be observed. Sometimes these changes are reversible, and sometimes they are not. (LE.PS1B.a)	SE/TE: 5, Let’s Read Science; 24, My Planet Diary; 33, Other Ways Matter Can Change; 38, Cooling Matter; 38, Lightning Lab; 39, Heating Matter; 50, From Sand to Glass; 56, Chapter 1 Review – Lesson 3; 60, Cool a Balloon TE Only: 2G-2H, Leveled Content Reader Support; 20, Professional Development Note; 39b, Chapter 1 Lesson Check – Questions 2-4; 61d, Performance Expectation Activity; 61d, ELA/Literacy
Crosscutting Concepts	
CAUSE AND EFFECT	
Events have causes that generate observable patterns.	SE/TE: 6-15, STEM Activity; 45, Materials in Bridges TE only: 20, Professional Development Note
2-LS2-1 ECOSYSTEMS: INTERACTIONS, ENERGY, AND DYNAMICS	
Performance Expectation	
Plan and conduct an investigation to determine if plants need sunlight and water to grow.	TE Only: Chapter 2 Performance Expectation Activity, 117a
Clarification Statement	
Emphasis is on testing one variable at a time during investigations.	
Science & Engineering Practices	
3. Planning and carrying out investigations to answer questions (science) or test solutions (engineering) to problems in K-2 builds on prior experiences and progresses to simple investigations, based on fair tests, which provide data to support explanations or design solutions.	
<ul style="list-style-type: none"> Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence to answer a question. 	SE/TE: 64, Try It!; 79, Go Green; 94, Explore It!; 104-105, Investigate It!; 116, Light and Seeds TE Only: 105a-105c, Activity Card Support; 117a, Performance Expectation Activity

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Disciplinary Core Ideas	
INTERDEPENDENT RELATIONSHIPS IN ECOSYSTEMS	
Plants depend on water and light to grow. (LE.LS2A.a)	SE/TE: 64, Try It!; 77, Plant Needs; 94, Explore It!; 96, Forest; 99, Wetland/Rain Forest; 101, Energy from Food; 104-105, Investigate It!; 116, Light and Seeds TE Only: 62G-62H, Leveled Content Reader Support; 105a-105d, Activity Card Support; 117a, Performance Expectation Activity
Crosscutting Concepts	
CAUSE AND EFFECT	
Events have causes that generate observable patterns.	SE/TE: 64, Try It!; 77, Plant Needs; 79, Go Green; 104-105, Investigate It!; 116, Light and Seeds TE Only: 62, CCC: Cause and Effect; 105c, Guided Inquiry; 117a, Performance Expectation Activity
2-LS2-2 ECOSYSTEMS: INTERACTIONS, ENERGY, AND DYNAMICS	
Performance Expectation	
Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.	TE Only: Chapter 2 Performance Expectation Activity, 117b
Clarification Statement	
Students could use the model to describe: (1) How the structure of the model gives rise to its function. (2) Structure-function relationships in the natural world that allow some animals to disperse seeds or pollinate plants.	
Science & Engineering Practices	
2. Developing and using models: Modeling in K-2 builds on prior experiences and progresses to include using and developing models (e.g., diagram, drawing, physical replica, diorama, dramatization, storyboard) that represent concrete events or design solutions.	
<ul style="list-style-type: none"> Develop a simple model based on evidence to represent a proposed object or tool. 	SE/TE: 88, Explore It!; 100, Explore It!; 114-115, Apply It!; 208-217, STEM Activity; 232, Lightning Lab TE Only: 63, SEP: Developing and Using Models; 93a, Explore It!; 103a, Explore It!; 117b, Performance Expectation Activity

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Disciplinary Core Ideas	
INTERDEPENDENT RELATIONSHIPS IN ECOSYSTEMS	
Plants may depend on animals for pollination or to move their seeds around. (LE.LS2A.b)	SE/TE: 79, Plant Parts; 81, Seed plants; 96, Forest TE Only: 117b, Performance Expectation Activity
Crosscutting Concepts	
STRUCTURE AND FUNCTION	
The shape and stability of structures of natural and designed objects are related to their function(s).	SE/TE: 78-79, Plant Parts; 84-85, Animals with Backbones; 86-87, Animals Without Backbones; 90-91, Animal Body Parts; 114-115, Apply It!; 232-233, Animal Body Parts as Tools TE Only: 63, SEP: Developing and Using Models; 117b, Performance Expectation Activity
2-LS4-1 BIOLOGICAL EVOLUTION: UNITY AND DIVERSITY	
Performance Expectation	
Make observations of plants and animals to compare the diversity of life in different habitats.	TE Only: Chapter 2 Performance Expectation Activity, 117c
Clarification Statement	
Emphasis is on the diversity of living things in each of a variety of different habitats. Students could explore different habitats in the community (e.g., school, aquariums, and neighborhoods).	
Science & Engineering Practices	
3. Planning and carrying out investigations: Planning and carrying out investigations to answer questions (science) or test solutions (engineering) to problems in K-2 builds on prior experiences and progresses to simple investigations, based on fair tests, which provide data to support explanations or design solutions.	
<ul style="list-style-type: none"> Make observations and/or measurements to collect data that can be used to make comparisons. 	SE/TE: 65, Let's Read Science; 66-78, STEM Activity; 94, Explore It!; 104-105, Investigate It!; 117, Make Observations; 180, Science Skills TE Only: xlv-xlv, Quest; 97, Professional Development Note; 117c, Performance Expectation Activity; 117c, ELA/Literacy; 117c, Mathematics

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Disciplinary Core Ideas	
BIODIVERSITY AND HUMANS	
There are many kinds of living things in any area, and they exist in different places on land, in water, and in air. (LE.LS4D.a)	SE/TE: 76, My Planet Diary; 82, My Planet Diary; 94-99, Lesson 4; 113, Chapter Review – Lesson 4; 116, Put on a Play; 117, Write a Song TE Only: xliv-xlv, Quest; 62G-62H, Leveled Content Reader Support; 99a, Explore It; 99b, Lesson 4, Check – Questions 1-5; 113b, Chapter 2 Test – Questions 5, 8; 117c, Performance Expectation Activity
Crosscutting Concepts	
PATTERNS	
Patterns in the natural and human designed world can be observed, used to describe phenomena, and used as evidence.	SE/TE: 194, Science, Engineering, and Technology Skills Handbook
2-ESS1-1 BIOLOGICAL EVOLUTION: UNITY AND DIVERSITY	
Performance Expectation	
Use information from several sources to provide evidence that Earth events can occur quickly or slowly.	TE Only: 159a, Chapter 3 Performance Expectation Activity
Clarification Statement	
Examples of events and timescales could include volcanic explosions and earthquakes, which happen quickly, and erosion of rocks, which occurs slowly.	
Science & Engineering Practices	
8. Obtaining, evaluating, and communicating information: Obtaining, evaluating, and communicating information in K–2 builds on prior experiences and uses observations and texts to communicate new information.	
<ul style="list-style-type: none"> Obtain information using various texts, text features (e.g., headings, tables of contents, glossaries, electronic menus, icons), and other media that will be useful in answering a scientific question and/or supporting a scientific claim. 	SE/TE: 158, Make a Poster TE Only: 140, Differentiated Instruction; 143, Differentiated Instruction; 159a, Performance Expectation Activity; 159a, ELA/Literacy; 159c, Performance Expectation Activity; 159c, ELA/Literacy; 159d, Performance Expectation Activity

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Disciplinary Core Ideas	
THE HISTORY OF PLANET EARTH	
Some events happen very quickly; others occur very slowly, over a time period much longer than one can observe. (LE.ESS1C.a)	SE/TE: 138-143, Lesson 2; 146, How Fossils Form; 147, What Fossils Show; 148-149, Investigate It!; 158, Erosion TE Only: 118, Professional Development Note; 141, Science Notebook; 143a, Explore It!; 143b, Lesson 2 Check; 155b, Chapter 3 Test – Questions 7, 8; 159a, Performance Expectation Activity
DEFINING AND DELIMITING ENGINEERING PROBLEMS	
Asking questions, making observations, and gathering information are helpful in thinking about problems. (ETS.LE.1A.b)	SE/TE: 223-224, Science Engineering, and Technology Skills Handbook
Crosscutting Concepts	
STABILITY AND CHANGE	
Things may change slowly or rapidly.	SE/TE: 138-143, Lesson 2; 146, How Fossils Form; 147, What Fossils Show; 148-149, Investigate It!; 158, Erosion TE Only: 118, CCC: Stability and Change; 141, Science Notebook; 143a, Explore It!; 143b, Lesson 2 Check; 155b, Chapter 3 Test – Questions 7, 8; 159a, Performance Expectation Activity

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2-ESS2-1 EARTH'S SYSTEMS	
Performance Expectation	
Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land.	TE Only: Chapter 3 Performance Expectation Activity, 159b
Clarification Statement	
Examples of solutions could include different designs of dikes and windbreaks to hold back wind and water, and different designs for using shrubs, grass, and trees to hold back the land.	
Science & Engineering Practices	
6. Constructing explanations and designing solutions: Constructing explanations (science) and designing solutions (engineering) in K–2 builds on prior experiences and progresses to the use of evidence and ideas in constructing evidence-based accounts of natural phenomena and designing solutions.	
<ul style="list-style-type: none"> Generate and/or compare multiple solutions to a problem. 	SE/TE: 122-131, STEM Activity; 159, Model Earthquake Damage TE Only: 159b, Performance Expectation Activity; 159b, ELA/Literacy
Disciplinary Core Ideas	
EARTH MATERIALS AND SYSTEMS	
Wind and water can change the shape of the land. (LE.ESS2A.a)	SE/TE: 133, Land and Water; 139, Changes on Earth; 140, Earthquakes and Volcanoes; 141, Weathering and Erosion; 142, Water Changes the Land; 143; Other Causes of Erosion; 148-149, Investigate It!; 154-155, Chapter Review, Lesson 2; 158, Erosion TE Only: 118D, Teacher Background; 118G, Leveled Content Reader Support; 118, Talk About the Picture; 140, Differentiated Instruction; 143b, Lesson 2 Check, Questions 1, 2, 4; 149a-149d, Investigate It!; 155a, Chapter 3 Test – Questions 3, 4; 155b, Chapter 3 Test – Question 8; 159a, Performance Expectation Activity
OPTIMIZING THE DESIGN SOLUTION	
Because there is always more than one possible solution to a problem, it is useful to compare and test designs. (LE.ETS1C.a)	SE/TE: 122-131, STEM Activity TE Only: 159b, Performance Expectation Activity