SRA Skills Handbook: Using Science
correlation to
Georgia's Performance Standards for Science
Grade 1

Habits of Mind
S1CS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
a. Raise questions about the world around them and be willing to seek answers to some of the questions by making careful observations and measurements and trying to figure things out.
Student Edition: Cards 1.2, 1.3, 1.4, 1.5, 1.6, 1.9, 1.11, 1.12 **Teacher's Guide:** pages 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 24, 25, 28, 29, 30, 31, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 56, 57, 60, 61, 62, 63

Habits of Mind
S1CS2. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
a. Use whole numbers in ordering, counting, identifying, measuring, and describing things and experiences.
Student Edition: Cards 1.1, 1.2, 1.3, 1.13, 1.14 **Teacher's Guide:** pages 8, 9, 10, 11, 12, 13, 16, 17, 32, 33, 34, 35, 42, 43, 44, 45, 64, 65, 66, 67

Habits of Mind
S1CS2. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
b. Readily give the sums and differences of single-digit numbers in ordinary, practical contexts and judge the reasonableness of the answer.
This concept is not covered at this level.

Habits of Mind
S1CS2. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
c. Give rough estimates of numerical answers to problems before doing them formally.
Student Edition: Card 1.2 **Teacher's Guide:** pages 10, 11, 16, 17, 42, 43

Habits of Mind
S1CS2. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
d. Make quantitative estimates of familiar lengths, weights, and time intervals, and check them by measuring.
Student Edition: Cards 1.2, 1.3, 1.4, 1.5 **Teacher's Guide:** pages 10, 11, 12, 13, 14, 15, 16, 17, 42, 43, 44, 45, 46, 47, 48, 49

Habits of Mind
S1CS3. Students will use tools and instruments for observing, measuring, and manipulating objects in scientific activities.
a. Use ordinary hand tools and instruments to construct, measure, and look at objects.
Student Edition: Cards 1.2, 1.3, 1.4, 1.5 **Teacher's Guide:** pages 10, 11, 12, 13, 14, 15, 16, 17, 42, 43, 44, 45, 46, 47, 48, 49

Habits of Mind
S1CS3. Students will use tools and instruments for observing, measuring, and manipulating objects in scientific activities.
b. Make something that can actually be used to perform a task, using paper, cardboard, wood, plastic, metal, or existing objects.
Student Edition: Card 1.1 **Teacher's Guide:** pages 8, 9, 40, 41

Habits of Mind
S1CS3. Students will use tools and instruments for observing, measuring, and manipulating objects in scientific activities.
c. Identify and practice accepted safety procedures in manipulating science materials and equipment.
Student Edition: Cards 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 1.10, 1.11, 1.12, 1.13, 1.14, 1.15, 1.16 **Teacher's Guide:** pages 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71

Habits of Mind
S1CS4. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.
a. Use a model—such as a toy or picture—to describe a feature of the primary thing.
Student Edition: Card 1.1 **Teacher's Guide:** pages 8, 9, 40, 41

Habits of Mind
S1CS4. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.
b. Describe changes in the size, weight, color, or movement of things, and note which of their other qualities remain the same during a specific change.
Student Edition: Cards 1.3, 1.4, 1.5, 1.6, 1.11, 1.12 **Teacher's Guide:** pages 12, 13, 14, 15, 16, 17, 18, 19, 28, 29, 30, 31, 46, 47, 48, 49, 50, 51, 60, 61, 62, 63

Habits of Mind
S1CS4. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.
c. Compare very different sizes, weights, ages (baby/adult), and speeds (fast/slow) of both human made and natural objects.
Student Edition: Cards 1.2, 1.5, 1.6, 1.7, 1.10, 1.11, 1.12 **Teacher's Guide:** pages 9, 10, 11, 16, 17, 18, 19, 20, 21, 26, 27, 28, 29, 30, 31, 42, 43, 48, 49, 50, 51, 52, 53, 58, 59, 60, 61, 62, 63

Habits of Mind
S1CS5. Students will communicate scientific ideas and activities clearly.
a. Describe and compare things in terms of number, shape, texture, size, weight, color, and motion.
Student Edition: Cards 1.1, 1.4, 1.5, 1.6, 1.7, 1.11, 1.12, 1.13, 1.14 **Teacher's Guide:** pages 8, 9, 14, 15, 16, 17, 18, 19, 20, 21, 28, 29, 30, 31, 32, 33, 34, 35, 40, 41, 46, 47, 48, 49, 50, 51, 52, 53, 60, 61, 62, 63, 64, 65, 66, 67

Habits of Mind
S1CS5. Students will communicate scientific ideas and activities clearly.
b. Draw pictures (grade level appropriate) that correctly portray features of the thing being described.
Student Edition: Cards 1.1, 1.10, 1.11, 1.12, 1.16 **Teacher's Guide:** pages 8, 9, 26, 27, 28, 29, 30, 31, 38, 39, 40, 41, 58, 59, 60, 61, 62, 63, 70, 71

Habits of Mind
S1CS5. Students will communicate scientific ideas and activities clearly.
c. Use simple pictographs and bar graphs to communicate data.
Student Edition: Cards 1.13, 1.14 **Teacher's Guide:** pages 9, 19, 32, 33, 34, 35, 64, 65, 66, 67

The Nature of Science
S1CS6. Students will be familiar with the character of scientific knowledge and how it is achieved.
a. Students will recognize that when a science investigation is done the way it was done before, we expect to get a similar result.
Student Edition: Cards 1.12,1.13 **Teacher's Guide:** pages 10, 11, 12, 13, 42, 43, 44, 45

The Nature of Science
S1CS6. Students will be familiar with the character of scientific knowledge and how it is achieved.
b. Students will recognize that science involves collecting data and testing hypotheses.
Student Edition: Cards 1.2, 1.3, 1.4, 1.11, 1.13, 1.14 **Teacher's Guide:** pages 10, 11, 12, 13, 14, 15, 28, 29, 32, 33, 34, 35, 42, 43, 44, 45, 46, 47, 60, 61, 64, 65, 66, 67

The Nature of Science
S1CS6. Students will be familiar with the character of scientific knowledge and how it is achieved.
c. Students will recognize that scientists often repeat experiments multiple times, and subject their ideas to criticism by other scientists who may disagree with them and do further tests.
Student Edition: Cards 1.12,1.13 **Teacher's Guide:** pages 10, 11, 12, 13, 42, 43, 44, 45

The Nature of Science
S1CS6. Students will be familiar with the character of scientific knowledge and how it is achieved.
d. Students will recognize that all different kinds of people can be and are scientists.
Student Edition: Card 1.8 **Teacher's Guide:** pages 22, 23, 54, 55

The Nature of Science
S1CS7. Students will understand important features of the process of scientific inquiry.
a. Students will apply the following to inquiry learning practices: Scientists use a common language with precise definitions of terms to make it easier to communicate their observations to each other.
Student Edition: Cards 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 1.10, 1.11, 1.12, 1.13, 1.14, 1.15, 1.16 **Teacher's Guide:** pages 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71

The Nature of Science
S1CS7. Students will understand important features of the process of scientific inquiry.
b. Students will apply the following to inquiry learning practices: In doing science, it is often helpful to work as a team. All team members should reach individual conclusions and share their understandings with other members of the team in order to develop a consensus.
Student Edition: Cards 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 1.10, 1.11, 1.12, 1.13, 1.14, 1.15, 1.16 **Teacher's Guide:** pages 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71

The Nature of Science
S1CS7. Students will understand important features of the process of scientific inquiry.
c. Students will apply the following to inquiry learning practices: Tools such as thermometers, rulers, and balances often give more information about things than can be obtained by just observing things without help.
Student Edition: Cards 1.2, 1.3, 1.4, 1.5 **Teacher's Guide:** pages 10, 11, 12, 13, 14, 15, 16, 17, 42, 43, 44, 45, 46, 47, 48, 49

The Nature of Science
S1CS7. Students will understand important features of the process of scientific inquiry.
d. Students will apply the following to inquiry learning practices: Much can be learned about plants and animals by observing them closely, but care must be taken to know the needs of living things and how to provide for them. Advantage can be taken of classroom pets.
Student Edition: Cards 1.1, 1.5, 1.7, 1.10, 1.12, 1.15, 1.16 **Teacher's Guide:** pages 8, 9, 16, 17, 20, 21, 26, 27, 30, 31, 36, 37, 38, 39, 40, 41, 48, 49, 52, 53, 58, 59, 62, 63, 68, 69, 70, 71

Earth Science
S1E1. Students will observe, measure, and communicate weather data to see patterns in weather and climate.
a. Identify different types of weather and the characteristics of each type.
Student Edition: Cards 1.3, 1.9 **Teacher's Guide:** pages 12, 13, 24, 25, 44, 45, 56, 57

Earth Science
S1E1. Students will observe, measure, and communicate weather data to see patterns in weather and climate.
b. Investigate weather by observing, measuring with simple weather instruments (thermometer, wind vane, rain gauge), and recording weather data (temperature, precipitation, sky conditions, and weather events) in a periodic journal or on a calendar seasonally.
Student Edition: Cards 1.3, 1.9 **Teacher's Guide:** pages 12, 13, 24, 25, 44, 45, 56, 57

Earth Science
S1E1. Students will observe, measure, and communicate weather data to see patterns in weather and climate.
c. Correlate weather data (temperature, precipitation, sky conditions, and weather events) to seasonal changes.
Student Edition: Cards 1.3, 1.9 **Teacher's Guide:** pages 12, 13, 24, 25, 44, 45, 56, 57

Earth Science
S1E2. Students will observe and record changes in water as it relates to weather.
a. Recognize changes in water when it freezes (ice) and when it melts (water).
This concept is not covered at this level.

Earth Science
S1E2. Students will observe and record changes in water as it relates to weather.
b. Identify forms of precipitation such as rain, snow, sleet, and hailstones as either solid (ice) or liquid (water).
Student Edition: Card 1.9 **Teacher's Guide:** pages 24, 25, 56, 57

Earth Science
S1E2. Students will observe and record changes in water as it relates to weather.
c. Determine that the weight of water before freezing, after freezing, and after melting, stays the same.
This concept is not covered at this level.

Earth Science
S1E2. Students will observe and record changes in water as it relates to weather.
d. Determine that water in an open container disappears into the air over time, but water in a closed container does not.
This concept is not covered at this level.

Physical Science
S1P1. Students will investigate light and sound.
a. Recognize sources of light.
Student Edition: Card 1.11 **Teacher's Guide:** pages 28, 29, 60, 61

Physical Science
S1P1. Students will investigate light and sound.
b. Explain how shadows are made.
Student Edition: Card 1.11 **Teacher's Guide:** pages 28, 29, 60, 61

Physical Science
S1P1. Students will investigate light and sound.
c. Investigate how vibrations produce sound.
This concept is not covered at this level.

Physical Science
S1P1. Students will investigate light and sound.
d. Differentiate between various sounds in terms of (pitch) high or low and (volume) loud or soft.
This concept is not covered at this level.

Physical Science
S1P1. Students will investigate light and sound.
e. Identify emergency sounds and sounds that help us stay safe.
This concept is not covered at this level.

Physical Science
S1P2. Students will demonstrate effects of magnets on other magnets and other objects.
a. Demonstrate how magnets attract and repel.
Student Edition: Card 1.4 **Teacher's Guide:** pages 14, 15, 46, 47

Physical Science
S1P2. Students will demonstrate effects of magnets on other magnets and other objects.
b. Identify common objects that are attracted to a magnet.
Student Edition: Card 1.4 **Teacher's Guide:** pages 14, 15, 46, 47

Physical Science
S1P2. Students will demonstrate effects of magnets on other magnets and other objects.
c. Identify objects and materials (air, water, wood, paper, your hand, etc.) that do not block magnetic force.
Student Edition: Card 1.4 **Teacher's Guide:** pages 14, 15, 46, 47

Life Science
S1L1. Students will investigate the characteristics and basic needs of plants and animals.
a. Identify the basic needs of a plant. • **Air** • **Water** • **Light** • **Nutrients.**
Student Edition: Card 1.7 **Teacher's Guide:** pages 20, 21, 52, 53

Life Science
S1L1. Students will investigate the characteristics and basic needs of plants and animals.
b. Identify the basic needs of an animal. • **Air** • **Water** • **Food** • **Shelter.**
Student Edition: Cards 1.10, 1.13, 1.15 **Teacher's Guide:** pages 26, 27, 32, 33, 36, 37, 58, 59, 64, 65, 68, 69

Life Science
S1L1. Students will investigate the characteristics and basic needs of plants and animals.
c. Identify the parts of a plant—root, stem, leaf, and flower.
Student Edition: Card 1.7 **Teacher's Guide:** pages 20, 21, 52, 53

Life Science
S1L1. Students will investigate the characteristics and basic needs of plants and animals.
d. Compare and describe various animals—appearance, motion, growth, basic needs.
Student Edition: Cards 1.1, 1.5, 1.7, 1.10, 1.14, 1.16 **Teacher's Guide:** pages 8, 9, 16, 17, 20, 21, 26, 27, 34, 35, 38, 39, 40, 41, 48, 49, 52, 53, 58, 59, 66, 67, 70, 71

SRA Skills Handbook: Using Science
correlation to
Georgia's Performance Standards for Science
Grade 2

Habits of Mind
S2CS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
a. Raise questions about the world around them and be willing to seek answers to some of the questions by making careful observations and measurements and trying to figure things out.
Student Edition: Cards 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 2.14, 2.15 **Teacher's Guide:** pages 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 34, 35, 36, 37, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 66, 67, 68, 69

Habits of Mind
S2CS2. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
a. Use whole numbers in ordering, counting, identifying, measuring, and describing things and experiences.
Student Edition: Cards 2.2, 2.5, 2.16 **Teacher's Guide:** pages 10, 11, 16, 17, 26, 27, 37, 38, 39, 42, 43, 53, 70, 71

Habits of Mind
S2CS2. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
b. Readily give the sums and differences of single-digit numbers in ordinary, practical contexts and judge the reasonableness of the answer.
Teacher's Guide: pages 16, 17

Habits of Mind
S2CS2. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
c. Give rough estimates of numerical answers to problems before doing them formally.
Student Edition: Card 2.5 **Teacher's Guide:** pages 16, 17

Habits of Mind
S2CS2. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
d. Make quantitative estimates of familiar lengths, weights, and time intervals, and check them by measuring.
Student Edition: Cards 2.2, 2.5 **Teacher's Guide:** pages 10, 11, 16, 17, 42, 43, 48, 49

Habits of Mind
S2CS3. Students will use tools and instruments for observing, measuring, and manipulating objects in scientific activities.
a. Use ordinary hand tools and instruments to construct, measure, and look at objects.
Student Edition: Cards 2.2, 2.3, 2.11 **Teacher's Guide:** pages 10, 11, 12, 13, 28, 29, 42, 43, 44, 45, 60, 61

Habits of Mind
S2CS3. Students will use tools and instruments for observing, measuring, and manipulating objects in scientific activities.
b. Assemble, describe, take apart, and reassemble constructions using interlocking blocks, erector sets and other things.
Student Edition: Card 2.4 **Teacher's Guide:** pages 14, 15, 19, 25, 46, 47

Habits of Mind
S2CS3. Students will use tools and instruments for observing, measuring, and manipulating objects in scientific activities.
c. Make something that can actually be used to perform a task, using paper, cardboard, wood, plastic, metal, or existing objects.
Student Edition: Card 2.4 **Teacher's Guide:** pages 24, 25, 29, 25, 46, 47

Habits of Mind
S2CS4. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.
a. Identify the parts of things, such as toys or tools, and identify what things can do when put together that they could not do otherwise.
Student Edition: Cards 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.8, 2.9, 2.10, 2.12, 2.13, 2.14, 21.5, 21.6 **Teacher's Guide:** pages 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71

Habits of Mind
S2CS4. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.
b. Use a model—such as a toy or picture—to describe a feature of the primary thing.
Student Edition: Cards 2.1, 2.9 **Teacher's Guide:** pages 8, 9, 24, 25, 40, 41

Habits of Mind
S2CS4. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.
c. Describe changes in the size, weight, color, or movement of things, and note which of their other qualities remain the same during a specific change.
Student Edition: Cards 2.2, 2.4, 2.8, 2.13 **Teacher's Guide:** pages 10, 11, 14, 15, 22, 23, 32, 33, 42, 43, 46, 47, 54, 55, 64, 65

Habits of Mind
S2CS4. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.
d. Compare very different sizes, weights, ages (baby/adult), and speeds (fast/slow) of both human made and natural objects.
Student Edition: Cards 2.1, 2.4, 2.5, 2.6, 2.7, 2.14, 2.15, 2.16 **Teacher's Guide:** pages 8, 9, 14, 15, 16, 17, 18, 19, 20, 21, 34, 35, 36, 37, 38, 39, 40, 41, 46, 47, 48, 49, 50, 51, 52, 53, 66, 67, 68, 69, 70, 71

Habits of Mind
S2CS5. Students will communicate scientific ideas and activities clearly.
a. Describe and compare things in terms of number, shape, texture, size, weight, color, and motion.
Student Edition: Cards 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.9, 2.10, 2.13, 2.14, 2.15, 2.16 **Teacher's Guide:** pages 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 24, 25, 26, 27, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 56, 57, 58, 59, 64, 65, 66, 67, 68, 69, 70, 71

Habits of Mind
S2CS5. Students will communicate scientific ideas and activities clearly.
b. Draw pictures (grade level appropriate) that correctly portray features of the thing being described.
Student Edition: Card 2.9 **Teacher's Guide:** pages 13, 25, 29, 31, 45, 57, 59, 67

Habits of Mind
S2CS5. Students will communicate scientific ideas and activities clearly.
c. Use simple pictographs and bar graphs to communicate data.
Student Edition: Cards 2.15, 2.16 **Teacher's Guide:** pages 11, 36, 37, 38, 39, 68, 69, 70, 71

The Nature of Science
S2CS6. Students will be familiar with the character of scientific knowledge and how it is achieved.
a. Students will recognize that when a science investigation is done the way it was done before, we expect to get a similar result.
Student Edition: Cards 2.4, 2.13 **Teacher's Guide:** pages 14, 15, 32, 33, 46, 47, 64, 65

The Nature of Science
S2CS6. Students will be familiar with the character of scientific knowledge and how it is achieved.
b. Students will recognize that science involves collecting data and testing hypotheses.
Student Edition: Cards 2.2, 2.4, 2.6, 2.14, 2.15, 2.16 **Teacher's Guide:** pages 10, 11, 14, 15, 18, 19, 34, 35, 36, 37, 38, 39, 42, 43, 46, 47, 50, 51, 66, 67, 68, 69, 70, 71

The Nature of Science
S2CS6. Students will be familiar with the character of scientific knowledge and how it is achieved.
c. Students will recognize that scientists often repeat experiments multiple times, and subject their ideas to criticism by other scientists who may disagree with them and do further tests.
Student Edition: Cards 2.4, 2.13 **Teacher's Guide:** pages 14, 15, 32, 33, 46, 47, 64, 65

The Nature of Science
S2CS6. Students will be familiar with the character of scientific knowledge and how it is achieved.
d. Students will recognize that all different kinds of people can be and are scientists.
Student Edition: Cards 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 2.10, 2.11, 2.12, 2.13, 2.14, 2.15, 2.16 **Teacher's Guide:** pages 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71

The Nature of Science
S2CS7. Students will understand important features of the process of scientific inquiry.
a. Students will apply the following to inquiry learning practices: Scientists use a common language with precise definitions of terms to make it easier to communicate their observations to each other.
Student Edition: Cards 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 2.10, 2.11, 2.12, 2.13, 2.14, 2.15, 2.16 **Teacher's Guide:** pages 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71

The Nature of Science
S2CS7. Students will understand important features of the process of scientific inquiry.
b. Students will apply the following to inquiry learning practices: In doing science, it is often helpful to work as a team. All team members should reach individual conclusions and share their understandings with other members of the team in order to develop a consensus.
Student Edition: Cards 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 2.10, 2.11, 2.12, 2.13, 2.14, 2.15, 2.16 **Teacher's Guide:** pages 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71

The Nature of Science
S2CS7. Students will understand important features of the process of scientific inquiry.
c. Students will apply the following to inquiry learning practices: Tools such as thermometers, rulers, and balances often give more information about things than can be obtained by just observing things without help.
Student Edition: Cards 2.2, 2.3, 2.7, 2.8 **Teacher's Guide:** pages 10, 11, 12, 13, 22, 23, 42, 43, 44, 45, 53, 54, 55

The Nature of Science
S2CS7. Students will understand important features of the process of scientific inquiry.
d. Students will apply the following to inquiry learning practices: Much can be learned about plants and animals by observing them closely, but care must be taken to know the needs of living things and how to provide for them. Advantage can be taken of classroom pets.
Student Edition: Cards 2.5, 2.9, 2.14 **Teacher's Guide:** pages 16, 17, 24, 25, 34, 35, 48, 49, 56, 57, 66, 67

Earth Science
S2E1. Students will understand that stars have different sizes, brightness, and patterns.
a. Describe the physical attributes of stars—size, brightness, and patterns.
This concept is not covered at this level.

Earth Science
S2E2. Students will investigate the position of sun and moon to show patterns throughout the year.
a. Investigate the position of the sun in relation to a fixed object on earth at various times of the day.
This concept is not covered at this level.

Earth Science
S2E2. Students will investigate the position of sun and moon to show patterns throughout the year.
b. Determine how the shadows change through the day by making a shadow stick or using a sundial.
This concept is not covered at this level.

Earth Science
S2E2. Students will investigate the position of sun and moon to show patterns throughout the year.
c. Relate the length of the day and night to the change in seasons. (Days are longer than the night in the summer.)
This concept is not covered at this level.

Earth Science
S2E2. Students will investigate the position of sun and moon to show patterns throughout the year.
d. Use observations and charts to record the shape of the moon for a period of time.
This concept is not covered at this level.

Earth Science
S2E3. Students will observe and record changes in their surroundings and infer the causes of the changes.
a. Recognize effects that occur in a specific area caused by weather, plants, animals, and/or people.
Student Edition: Card 2.4 **Teacher's Guide:** pages 14, 15, 46, 47

Physical Science
S2P1. Students will investigate the properties of matter and changes that occur in objects.
a. Identify the three common states of matter as solid, liquid, or gas.
Student Edition: Card 2.13 **Teacher's Guide:** pages 32, 33, 64, 65

Physical Science
S2P1. Students will investigate the properties of matter and changes that occur in objects.
b. Investigate changes in objects by tearing, dissolving, melting, squeezing, etc.
Student Edition: Card 2.13 **Teacher's Guide:** pages 32, 33, 64, 65

Physical Science
S2P2. Students will identify sources of energy and how the energy is used.
a. Identify sources of light energy, heat energy, and energy of motion.
Student Edition: Cards 2.10, 2.15, 2.16 **Teacher's Guide:** pages 26, 27, 36, 37, 38, 39, 58, 59, 68, 69, 70, 71

Physical Science
S2P2. Students will identify sources of energy and how the energy is used.
b. Describe how light, heat, and motion energy are used.
Student Edition: Card 2.2 **Teacher's Guide:** pages 10, 11, 42, 43

Life Science
S2L1. Students will investigate the life cycles of different living organisms.
a. Determine the sequence of the life cycle of common animals in your area: a mammal such as a cat or dog or classroom pet, a bird such as a chicken, an amphibian such as a frog, and an insect such as a butterfly.
This concept is not covered at this level.

Life Science
S2L1. Students will investigate the life cycles of different living organisms.
b. Relate seasonal changes to observations to how a tree changes throughout a school year.
Student Edition: Card 2.16 **Teacher's Guide:** pages 38, 39, 70, 71

Life Science
S2L1. Students will investigate the life cycles of different living organisms.
c. Investigate the life cycle of a plant by growing a plant from a seed and by recording changes over a period of time.
Student Edition: Card 2.14 **Teacher's Guide:** pages 34, 35, 66, 67

Life Science
S2L1. Students will investigate the life cycles of different living organisms.
d. Identify fungi (mushrooms) as a living organism.
This concept is not covered at this level.

SRA Skills Handbook: Using Science
correlation to
Georgia's Performance Standards for Science
Grade 3

Habits of Mind
S3CS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
a. Keep records of investigations and observations and do not alter the records later.
Student Edition: pages 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 42, 43, 44, 45, 46, 47, 106, 107, 108, 109, 110, 111 **Teacher's Guide:** pages 10, 11, 12, 13, 14, 15, 18, 19, 44, 45 **Skills Workbook:** pages 9, 10, 11, 12, 13, 14, 17, 18, 43, 44

Habits of Mind
S3CS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
b. Offer reasons for findings and consider reasons suggested by others.
Student Edition: pages 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201 **Teacher's Guide:** pages 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36,3 7, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81 **Skills Workbook:** pages 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36,3 7, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80

Habits of Mind
S3CS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
c. Take responsibility for understanding the importance of being safety conscious.
Student Edition: pages 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201 **Teacher's Guide:** pages 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36,3 7, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81 **Skills Workbook:** pages 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36,3 7, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80

Habits of Mind
S3CS2. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
a. Add, subtract, multiply, and divide whole numbers mentally, on paper, and with a calculator.
Student Edition: pages 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 42, 43, 44, 45, 46, 47, 50, 51, 52, 53, 54, 55, 106, 107, 108, 109, 110, 111, 152, 153, 154, 155, 156, 157, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181 **Teacher's Guide:** pages 4, 5, 6, 7, 10, 11, 12, 13, 14, 15, 18, 19, 20, 21, 44, 45, 62, 63, 68, 69, 70, 71, 72, 73 **Skills Workbook:** pages 3, 4, 5, 6, 9, 10, 11, 12, 13, 14, 17, 18, 19, 20, 43, 44, 61, 62, 67, 68, 690, 70, 71, 72

Habits of Mind
S3CS2. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
b. Use commonly encountered fractions—halves, thirds, and fourths (but not sixths, sevenths, etc.)—in science calculations.
This concept is not covered at this level.

Habits of Mind
S3CS2. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
c. Judge whether measurements and computations of quantities, such as length, weight, or time, are reasonable answers to scientific problems by comparing them to typical values.
Grade 3 Student Book: pages 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 22, 23, 24, 25, 26, 26, 106, 107, 108, 109, 110, 111 **Grade 3 Teacher's Guide:** pages 4, 5, 6, 7, 10, 11 **Grade 3 Skills Workbook:** pages 3, 4, 5, 6, 9, 10, 11, 12, 91, 92

Habits of Mind
S3CS3. Students will use tools and instruments for observing, measuring, and manipulating objects in scientific activities utilizing laboratory procedures.
a. Choose appropriate common materials for making simple mechanical constructions and repairing things.
Student Edition: pages 4, 5, 6, 7, 42, 43, 44, 45, 46, 47 **Teacher's Guide:** pages 2, 3, 18, 19 **Skills Workbook:** pages 1, 2, 17, 18

Habits of Mind
S3CS3. Students will use tools and instruments for observing, measuring, and manipulating objects in scientific activities utilizing laboratory procedures.
b. Use computers, cameras, and recording devices for capturing information.
Student Edition: pages 140, 141, 142, 143, 144, 145 **Teacher's Guide:** pages 3, 5, 7, 9, 11, 13, 17, 19, 23, 27, 29, 31, 33, 35, 39, 41, 43, 45, 53, 55, 57, 58, 59, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79 **Skills Workbook:** pages 57, 58

Habits of Mind
S3CS3. Students will use tools and instruments for observing, measuring, and manipulating objects in scientific activities utilizing laboratory procedures.
c. Identify and practice accepted safety procedures in manipulating science materials and equipment.
Student Edition: pages 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201 **Teacher's Guide:** pages 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36,3 7, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81 **Skills Workbook:** pages 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36,3 7, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80

Habits of Mind
S3CS4. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.
a. Observe and describe how parts influence one another in things with many parts.
Student Edition: pages 4, 5, 6, 7, 18, 19, 20, 21, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 74, 75, 76, 77, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 96, 97, 98, 99, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 136, 137, 138, 139, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 196, 197, 198, 199, 200, 201 **Teacher's Guide:** pages 2, 3, 8, 9, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 30, 31, 34, 35, 36, 37, 40, 41, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 56, 57, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 80, 81 **Skills Workbook:** pages 1, 2, 7, 8, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 29, 30, 33, 34, 35, 36, 39, 40, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 55, 56, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 772, 73, 74, 75, 76, 79, 80

Habits of Mind
S3CS4. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.
b. Use geometric figures, number sequences, graphs, diagrams, sketches, number lines, maps, and stories to represent corresponding features of objects, events, and processes in the real world.
Student Edition: pages 4, 5, 6, 7, 18, 19, 20, 21, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 74, 75, 76, 77, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 96, 97, 98, 99, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 136, 137, 138, 139, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 196, 197, 198, 199, 200, 201 **Teacher's Guide:** pages 2, 3, 8, 9, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 30, 31, 34, 35, 36, 37, 40, 41, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 56, 57, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 80, 81 **Skills Workbook:** pages 1, 2, 7, 8, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 29, 30, 33, 34, 35, 36, 39, 40, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 55, 56, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 772, 73, 74, 75, 76, 79, 80

Habits of Mind
S3CS4. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.
c. Identify ways in which the representations so not match their original counterparts.
Student Edition: pages 4, 5, 6, 7, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 42, 43, 44, 45, 46, 47, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 132, 133, 134, 135 **Teacher's Guide:** pages 2, 3, 12, 13, 14, 15, 18, 19, 20, 21, 22, 23, 54, 55 **Skills Workbook:** pages 1, 2, 11, 12, 13, 14, 17, 18, 19, 20, 21, 22, 53, 54

Habits of Mind
S3CS5. Students will communicate scientific ideas and activities clearly.
a. Write instructions that others can follow in carrying out a scientific procedure.
Student Edition: pages 32, 33, 34, 35, 36, 37, 50, 51, 52, 53, 54, 55, 96, 97, 98, 99, 136, 137, 138, 139, 188, 189, 190, 191 **Teacher's Guide:** pages 14, 15, 20, 21, 40, 41, 56, 57, 76, 77 **Skills Workbook:** pages 13, 14, 19, 20, 39, 40, 55, 56, 75, 76

Habits of Mind
S3CS5. Students will communicate scientific ideas and activities clearly.
b. Make sketches to aid in explaining scientific procedures or ideas.
Student Edition: pages 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 42, 43, 44, 45, 46, 47, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 146, 147, 148, 149, 150, 151, 188, 189, 190, 191 **Teacher's Guide:** pages 18, 19, 44, 45, 46, 47, 48, 49, 65 **Skills Workbook:** pages 43, 44, 45, 46, 59, 60, 67, 68, 73, 74

Habits of Mind
S3CS5. Students will communicate scientific ideas and activities clearly.
c. Use numerical data in describing and comparing objects and events.
Student Edition: pages 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 42, 43, 44, 45, 46, 47, 64, 65, 66, 67, 152, 153, 154, 155, 156, 157 **Teacher's Guide:** pages 10, 11, 12, 13, 18, 19, 26, 27, 62, 63 **Skills Workbook:** pages 9, 10, 11, 12, 17, 18, 25, 26, 61, 62

Habits of Mind
S3CS5. Students will communicate scientific ideas and activities clearly.
d. Locate scientific information in reference books, back issues of newspapers and magazines, CD-ROMs, and computer databases.
Student Edition: pages 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151 **Teacher's Guide:** pages 58, 59, 60, 61 **Skills Workbook:** pages 57, 58, 59, 60

Habits of Mind
S3CS6. Students will question scientific claims and arguments effectively.
a. Support statements with facts found in books, articles, and databases, and identify the sources used.
Student Edition: pages 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151 **Teacher's Guide:** pages 58, 59, 60, 61 **Skills Workbook:** pages 57, 58, 59, 60

The Nature of Science
S3CS7. Students will be familiar with the character of scientific knowledge and how it is achieved.
a. Students will recognize that similar scientific investigations seldom produce exactly the same results, which may differ due to unexpected differences in whatever is being investigated, unrecognized differences in the methods or circumstances of the investigation, or observational uncertainties.
Student Edition: pages 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 42, 43, 44, 45, 46, 47 **Teacher's Guide:** pages 10, 11, 12, 13, 18, 19 **Skills Workbook:** pages 9, 10, 11, 12, 17, 18

The Nature of Science
S3CS7. Students will be familiar with the character of scientific knowledge and how it is achieved.
b. Students will recognize that some scientific knowledge is very old and yet is still applicable today.
Student Edition: pages 22, 23, 24, 25, 26, 27, 28, 29, 30, 31 **Teacher's Guide:** pages 10, 11, 12, 13 **Skills Workbook:** pages 9, 10, 11, 12

The Nature of Science
S3CS8. Students will understand important features of the process of scientific inquiry.
a. Students will apply the following to inquiry learning practices: Scientific investigations may take many different forms, including observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.
Student Edition: pages 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 82, 83, 84, 85, 86, 87, 106, 107, 108, 109, 110, 111, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201 **Teacher's Guide:** pages 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 34, 35, 44, 45, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81 **Skills Workbook:** pages 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 33, 34, 43, 44, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80

The Nature of Science
S3CS8. Students will understand important features of the process of scientific inquiry.
b. Students will apply the following to inquiry learning practices: Clear and active communication is an essential part of doing science. It enables scientists to inform others about their work, expose their ideas to criticism by other scientists, and stay informed about scientific discoveries around the world.
Student Edition: pages 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201 **Teacher's Guide:** pages 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36,3 7, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81 **Skills Workbook:** pages 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36,3 7, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80

The Nature of Science
S3CS8. Students will understand important features of the process of scientific inquiry.
c. Students will apply the following to inquiry learning practices: Scientists use technology to increase their power to observe things and to measure and compare things accurately.
Student Edition: pages 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31 **Teacher's Guide:** pages 4, 5, 6, 7, 10, 11, 12, 13 **Skills Workbook:** pages 3, 4, 5, 6, 9, 10, 11, 12

The Nature of Science
S3CS8. Students will understand important features of the process of scientific inquiry.
d. Students will apply the following to inquiry learning practices: Science involves many different kinds of work and engages men and women of all ages and backgrounds.
Student Edition: pages 22, 23, 24, 25, 26, 27, 38, 39, 40, 41, 106, 107, 108, 109, 110, 111, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 160, 161, 162, 163, 164, 165 **Teacher's Guide:** pages 10, 11, 16, 17, 44, 45, 56, 57, 58, 59, 64, 65 **Skills Workbook:** pages 9, 10, 15, 16, 43, 44, 55, 56, 57, 58, 63, 64

Earth Science
S3E1. Students will investigate the physical attributes of rocks and soil.
a. Explain the difference between a rock and a mineral.
Student Edition: pages 188, 189, 190, 191 **Teacher's Guide:** pages 76, 77 **Skills Workbook:** pages 75, 76

Earth Science
S3E1. Students will investigate the physical attributes of rocks and soil.
b. Recognize the physical attributes of rocks and minerals using observation (shape, color, texture), measurement, and simple tests (hardness).
This concept is not covered at this level.

Earth Science
S3E1. Students will investigate the physical attributes of rocks and soil.
c. Use observation to compare the similarities and differences of texture, particle size, and color in top soils (such as clay, loam or potting soil, and sand).
This concept is not covered at this level.

Earth Science
S3E1. Students will investigate the physical attributes of rocks and soil.
d. Determine how water and wind can change rocks and soil over time using observation and research.
Student Edition: pages 32, 33, 34, 35, 36, 37, 88, 89, 90, 91, 178, 179, 180, 181 **Teacher's Guide:** pages 14, 15, 36, 37, 72, 73 **Skills Workbook:** pages 13, 14, 35, 36, 71, 72

Earth Science
S3E2. Students will investigate fossils as evidence of organisms that lived long ago.
a. Investigate fossils by observing authentic fossils or models of fossils or view information resources about fossils as evidence of organisms that lived long ago.
Grade 3 Student Book: pages 188, 189, 190, 191 **Grade 3 Teacher's Guide:** pages 76, 77 **Grade 3 Skills Workbook:** pages 53, 54, 75, 76

Earth Science
S3E2. Students will investigate fossils as evidence of organisms that lived long ago.
b. Describe how a fossil is formed.
Grade 3 Student Book: pages 188, 189, 190, 191 **Grade 3 Teacher's Guide:** pages 76, 77 **Grade 3 Skills Workbook:** pages 53, 54, 75, 76

Physical Science
S32P1. Students will investigate how heat is produced and the effects of heating and cooling, and will understand a change in temperature indicates a change in heat.
a. Categorize ways to produce heat energy such as burning, rubbing (friction), and mixing one thing with another.
This concept is not covered at this level.

Physical Science
S32P1. Students will investigate how heat is produced and the effects of heating and cooling, and will understand a change in temperature indicates a change in heat.
b. Investigate how insulation affects heating and cooling.
This concept is not covered at this level.

Physical Science
S32P1. Students will investigate how heat is produced and the effects of heating and cooling, and will understand a change in temperature indicates a change in heat.
c. Investigate the transfer of heat energy from the sun to various materials.
Student Edition: pages 18, 19, 20, 21 **Teacher's Guide:** pages 8, 9 **Skills Workbook:** pages 7, 8

Physical Science
S32P1. Students will investigate how heat is produced and the effects of heating and cooling, and will understand a change in temperature indicates a change in heat.
d. Use thermometers to measure the changes in temperatures of water samples (hot, warm, cold) over time.
Student Edition: pages 106, 107, 108, 109, 110, 111 **Teacher's Guide:** pages 44, 45

Physical Science
S3P2. Students will investigate magnets and how they affect other magnets and common objects.
a. Investigate how to find common objects that are attracted to magnets.
This concept is not covered at this level.

Physical Science
S3P2. Students will investigate magnets and how they affect other magnets and common objects.
b. Investigate how magnets attract and repel each other.
This concept is not covered at this level.

Life Science
S3L1. Students will investigate the habitats of different organisms and the dependence of organisms on their habitat.
a. Differentiate between habitats of Georgia (mountains, marsh/swamp, coast, Piedmont, Atlantic Ocean) and the organisms that live there.
Grade 3 Student Book: pages 60, 61, 62, 63, 74, 75, 76, 77 **Grade 3 Teacher's Guide:** pages 24, 25, 30, 31 **Grade 3 Skills Workbook:** pages 23, 24, 29, 30

Life Science
S3L1. Students will investigate the habitats of different organisms and the dependence of organisms on their habitat.
b. Identify features of green plants that allow them to live and thrive in different regions of Georgia.
Student Edition: pages 60, 61, 62, 63 **Teacher's Guide:** pages 24, 25

Life Science
S3L1. Students will investigate the habitats of different organisms and the dependence of organisms on their habitat.
c. Identify features of animals that allow them to live and thrive in different regions of Georgia.
Student Edition: pages 38, 39, 40, 41, 60, 61, 62, 63, 68, 69, 70, 71, 72, 73, 82, 83, 84, 85, 86, 87, 128, 129, 130, 131, 174, 175, 176, 177 **Teacher's Guide:** pages 16, 17, 24, 25, 28, 29, 34, 35, 52, 53, 70, 71 **Skills Workbook:** pages 15, 16, 23, 24, 27, 28, 33, 34, 51, 52, 69, 70

Life Science
S3L1. Students will investigate the habitats of different organisms and the dependence of organisms on their habitat.
d. Explain what will happen to an organism if the habitat is changed.
Grade 3 Student Book: pages 188, 189, 190, 191 **Grade 3 Teacher's Guide:** pages 52, 53 **Grade 3 Skills Workbook:** pages 51, 52

Life Science
S3L2. Students will recognize the effects of pollution and humans on the environment.
a. Explain the effects of pollution (such as littering) to the habitats of plants and animals.
Student Edition: pages 170, 171, 172, 173 **Teacher's Guide:** pages 68, 69 **Skills Workbook:** pages 67, 68

Life Science
S3L2. Students will recognize the effects of pollution and humans on the environment.
b. Identify ways to protect the environment. • **Conservation of resources** • **Recycling of materials.**
Student Edition: pages 170, 171, 172, 173 **Teacher's Guide:** pages 68, 69 **Skills Workbook:** pages 67, 68

SRA Skills Handbook: Using Science
correlation to
Georgia's Performance Standards for Science
Grade 4

Habits of Mind
S4CS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
a. Keep records of investigations and observations and do not alter the records later.
Student Edition: pages 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 42, 43, 44, 45, 46, 47, 54, 55, 56, 57, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 100, 101, 102, 103, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 154, 155, 156, 157, 158, 159, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197 **Teacher's Guide:** pages 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 18, 19, 22, 23, 30, 31, 32, 33, 34, 35, 36, 37, 42, 43, 56, 57, 58, 59, 62, 63, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79 **Skills Handbook:** pages 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 17, 18, 21, 22, 29, 30, 31, 32, 33, 34, 35, 36, 41, 42, 55, 56, 57, 58, 61, 62, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78

Habits of Mind
S4CS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
b. Carefully distinguish observations from ideas and speculation about those observations.
Student Book: pages 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 22, 23, 24, 25, 26, 27, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 54, 55, 56, 57, 82, 83, 84, 85, 154, 155, 156, 157, 158, 159, 174, 175, 176, 177, 178, 179 **Teacher's Guide:** pages 4, 5, 6, 7, 10, 11, 14, 15, 16, 17, 18, 19, 22, 23, 34, 35, 62, 63, 70, 71 **Skills Workbook:** pages 3, 4, 5, 6, 9, 10, 13, 14, 15, 16, 17, 18, 21, 22, 33, 34, 61, 62

Habits of Mind
S4CS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
c. Offer reasons for findings and consider reasons suggested by others.
Student Book: pages 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 86, 87, 88, 89, 154, 155, 156, 157, 158, 159 **Teacher's Guide:** pages 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 36, 37, 62, 63 **Skills Workbook:** pages 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 35, 36, 61, 62

Habits of Mind
S4CS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
d. Take responsibility for understanding the importance of being safety conscious.
Student Edition: pages 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201 **Teacher's Guide:** pages 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36,3 7, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81 **Skills Workbook:** pages 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36,3 7, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80

Habits of Mind
S43CS2. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
a. Add, subtract, multiply, and divide whole numbers mentally, on paper, and with a calculator.
Student Edition: pages 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 154, 155, 156, 157, 158, 159, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183 **Teacher's Guide:** pages 4, 5, 6, 7, 10, 11, 12, 13, 14, 15, 33, 62, 63, 66, 67, 68, 69, 70, 71, 72, 73 **Skills Workbook:** pages 3, 4, 5, 6, 9, 14, 61, 62, 67, 68, 69, 70, 71, 72

Habits of Mind
S4CS2. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
b. Use fractions and decimals, and translate between decimals and commonly encountered fractions—halves, thirds, fourths, fifths, tenths, and hundredths (but not sixths, sevenths, and so on)—in scientific calculations.
Student Edition: pages 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 180, 181, 182, 183 **Teacher's Guide:** pages 10, 11, 12, 13, 33, 72, 73, 77 **Skills Workbook:** pages 9, 10, 11, 12, 71, 72

Habits of Mind
S4CS2. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
c. Judge whether measurements and computations of quantities, such as length, area, volume, weight, or time, are reasonable answers to scientific problems by comparing them to typical values.
Student Edition: pages 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 174, 175, 176, 177, 178, 179 **Teacher's Guide:** pages 4, 5, 6, 7, 10, 11, 12, 13, 70, 71 **Skills Workbook:** pages 3, 4, 5, 6, 9, 10, 11, 12, 69, 70

Habits of Mind
S4CS3. Students will use tools and instruments for observing, measuring, and manipulating objects in scientific activities utilizing laboratory procedures.
a. Choose appropriate common materials for making simple mechanical constructions and repairing things.
Student Edition: pages 14, 15, 16, 17, 94, 95, 96, 97 **Teacher's Guide:** pages 6, 7, 40, 41 **Skills Handbook:** pages 5, 6, 39, 40

Habits of Mind
S4CS3. Students will use tools and instruments for observing, measuring, and manipulating objects in scientific activities utilizing laboratory procedures.
b. Measure and mix dry and liquid materials in prescribed amounts, exercising reasonable safety.
This concept is not covered at this level.

Habits of Mind
S4CS3. Students will use tools and instruments for observing, measuring, and manipulating objects in scientific activities utilizing laboratory procedures.
c. Use computers, cameras, and recording devices for capturing information.
Student Edition: pages 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147 **Teacher's Guide:** pages 3, 7, 11, 13, 17, 19, 21, 23, 25, 27, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 55, 56, 57, 58, 59, 61, 63, 65, 67, 69, 71, 73, 75, 79, 81 **Skills Workbook:** pages 55, 56, 57, 58

Habits of Mind
S4CS3. Students will use tools and instruments for observing, measuring, and manipulating objects in scientific activities utilizing laboratory procedures.
d. Identify and practice accepted safety procedures in manipulating science materials and equipment.
Student Edition: pages 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201 **Teacher's Guide:** pages 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36,3 7, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81 **Skills Workbook:** pages 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36,3 7, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80

Habits of Mind
S4CS4. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.
a. Observe and describe how parts influence one another in things with many parts.
Student Edition: pages 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 100, 101, 102, 103, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201 **Teacher's Guide:** pages 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 46, 47, 48, 49, 40, 51, 52, 53, 54, 55, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81 **Skills Workbook:** pages 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80

Habits of Mind
S4CS4. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.
b. Use geometric figures, number sequences, graphs, diagrams, sketches, number lines, maps, and stories to represent corresponding features of objects, events, and processes in the real world. Identify ways in which the representations do not match their original counterparts.
Student Edition: pages 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201 **Teacher's Guide:** pages 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36,3 7, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81 **Skills Workbook:** pages 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36,3 7, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80

Habits of Mind
S4CS4. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.
c. Identify patterns of change in things—such as steady, repetitive, or irregular change—using records, tables, or graphs of measurements where appropriate.
Student Edition: pages 58, 59, 60, 61, 82, 83, 84, 85, 132, 133, 134, 135, 184, 185, 186, 187, 188, 189 **Teacher's Guide:** pages 24, 25, 34, 35, 54, 55, 74, 75 **Skills Workbook:** pages 23, 24, 33, 34, 53, 54, 73, 74

Habits of Mind
S4CS5. Students will communicate scientific ideas and activities clearly.
a. Write instructions that others can follow in carrying out a scientific procedure.
Student Edition: pages 28, 29, 30, 31, 94, 95, 96, 97, 132, 133, 134, 135 **Teacher's Guide:** pages 12, 13, 40, 41, 54, 55 **Skills Workbook:** pages 11, 12, 39, 40, 53, 54

Habits of Mind
S4CS5. Students will communicate scientific ideas and activities clearly.
b. Make sketches to aid in explaining scientific procedures or ideas.
Student Edition: pages 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 148, 149, 150, 151, 152, 153, 184, 185, 186 187, 188, 189, 190, 191, 192, 193 **Teacher's Guide:** pages 12, 13, 14, 15, 60, 61, 74, 75, 76, 77 **Skills Workbook:** pages 11, 12, 13, 14, 41, 42, 53, 54, 59, 60, 73, 74

Habits of Mind
S4CS5. Students will communicate scientific ideas and activities clearly.
c. Use numerical data in describing and comparing objects and events.
Student Edition: pages 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 42, 43, 44, 45, 46, 47, 54, 55, 56, 57, 72, 73, 74, 75, 76, 77, 154, 155, 156, 157, 158, 159, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201 **Teacher's Guide:** pages 10, 11, 12, 13, 14, 15, 18, 19, 22, 23, 30, 31, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81 **Skills Workbook:** pages 9, 10, 11, 12, 13, 14, 19, 20, 21, 22, 23, 24, 31, 32, 37, 38, 39, 40, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80

Habits of Mind
S4CS5. Students will communicate scientific ideas and activities clearly.
d. Locate scientific information in reference books, back issues of newspapers and magazines, CD-ROMs, and computer databases.
Student Edition: pages 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153 **Teacher's Guide:** pages 56, 57, 58, 59, 60, 61 **Skills Workbook:** pages 55, 56, 57, 58, 59, 60

Habits of Mind
S4CS6. Students will question scientific claims and arguments effectively.
a. Support statements with facts found in books, articles, and databases, and identify the sources used.
Student Edition: pages 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153 **Teacher's Guide:** pages 56, 57, 58, 59, 60, 61 **Skills Workbook:** pages 55, 56, 57, 58, 59, 60

Habits of Mind
S4CS6. Students will question scientific claims and arguments effectively.
b. Identify when comparisons might not be fair because some conditions are different.
Student Edition: pages 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37 , 38, 39 40, 41, 42, 43, 44, 45, 46, 47 **Teacher's Guide:** pages 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 **Skills Workbook:** pages 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18

The Nature of Science
S4CS7. Students will be familiar with the character of scientific knowledge and how it is achieved.
a. Students will recognize that similar scientific investigations seldom produce exactly the same results, which may differ due to unexpected differences in whatever is being investigated, unrecognized differences in the methods or circumstances of the investigation, or observational uncertainties.
Student Edition: pages 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 42, 43, 44, 45, 46, 47 **Teacher's Guide:** pages 10, 11, 12, 13, 14, 15, 18, 19 **Skills Handbook:** pages 9, 10, 11, 12, 13, 14, 17, 18

The Nature of Science
S4CS7. Students will be familiar with the character of scientific knowledge and how it is achieved.
b. Students will recognize that some scientific knowledge is very old and yet is still applicable today.
Student Edition: pages 162, 163, 164, 165, 194, 195, 196, 197 **Teacher's Guide:** pages 3, 5, 13, 33, 49, 55, 64, 65, 79, 81 **Skills Workbook:** pages 63, 64

The Nature of Science
S4CS8. Students will understand important features of the process of scientific inquiry.
a. Students will apply the following to inquiry learning practices: Scientific investigations may take many different forms, including observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.
Student Edition: pages 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201 **Teacher's Guide:** pages 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36,3 7, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81 **Skills Workbook:** pages 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36,3 7, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80

The Nature of Science
S4CS8. Students will understand important features of the process of scientific inquiry.
b. Students will apply the following to inquiry learning practices: Clear and active communication is an essential part of doing science. It enables scientists to inform others about their work, expose their ideas to criticism by other scientists, and stay informed about scientific discoveries around the world.
Student Edition: pages 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201 **Teacher's Guide:** pages 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36,3 7, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81 **Skills Workbook:** pages 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36,3 7, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80

The Nature of Science
S4CS8. Students will understand important features of the process of scientific inquiry.
c. Students will apply the following to inquiry learning practices: Scientists use technology to increase their power to observe things and to measure and compare things accurately.
Student Edition: pages 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 42, 43, 44, 45, 46, 47, 174, 175, 176, 177, 178, 179 **Teacher's Guide:** pages 4, 5, 6, 7, 10, 11, 12, 13, 18, 19, 70, 71 **Skills Handbook:** pages 3, 4, 5, 6, 9, 10, 11, 12, 17, 18, 69, 70

The Nature of Science
S4CS8. Students will understand important features of the process of scientific inquiry.
d. Students will apply the following to inquiry learning practices: Science involves many different kinds of work and engages men and women of all ages and backgrounds.
Student Edition: pages 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201 **Teacher's Guide:** pages 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36,3 7, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81 **Skills Workbook:** pages 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36,3 7, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80

Earth Science
S4E1. Students will compare and contrast the physical attributes of stars, star patterns, and planets.
a. Recognize the physical attributes of stars in the night sky such as number, size, color, and patterns.
This concept is not covered at this level.

Earth Science
S4E1. Students will compare and contrast the physical attributes of stars, star patterns, and planets.
b. Compare the similarities and differences of planets to the stars in appearance, position, and number in the night sky.
Student Edition: pages 54, 55, 56, 57 **Teacher's Guide:** pages 22, 23 **Skills Workbook:** pages 21, 22

Earth Science
S4E1. Students will compare and contrast the physical attributes of stars, star patterns, and planets.
c. Explain why the pattern of stars in a constellation stays the same, but a planet can be seen in different locations at different times.
Student Edition: page 153 **Teacher's Guide:** pages 60, 61

Earth Science
S4E1. Students will compare and contrast the physical attributes of stars, star patterns, and planets.
d. Identify how technology is used to observe distant objects in the sky.
Grade 4 Student Book: pages 148, 149, 150, 151, 152, 152 **Grade 4 Teacher's Guide:** pages 60, 61

Earth Science
S4E2. Students will model the position and motion of the earth in the solar system and will explain the role of relative position and motion in determining sequence of the phases of the moon.
a. Explain the day/night cycle of the earth using a model.
Grade 4 Student Book: pages 54, 55, 56, 57 **Grade 4 Teacher's Guide:** pages 22, 23 **Grade 4 Skills Workbook:** pages 21, 22

Earth Science
S4E2. Students will model the position and motion of the earth in the solar system and will explain the role of relative position and motion in determining sequence of the phases of the moon.
b. Explain the sequence of the phases of the moon.
This concept is not covered at this level.

Earth Science
S4E2. Students will model the position and motion of the earth in the solar system and will explain the role of relative position and motion in determining sequence of the phases of the moon.
c. Demonstrate the revolution of the earth around the sun and the earth's tilt to explain the seasonal changes.
This concept is not covered at this level.

Earth Science
S4E2. Students will model the position and motion of the earth in the solar system and will explain the role of relative position and motion in determining sequence of the phases of the moon.
d. Demonstrate the relative size and order from the sun of the planets in the solar system.
Student Edition: pages 54, 55, 56, 57 **Teacher's Guide:** pages 22, 23 **Skills Workbook:** pages 21, 22

Earth Science
S4E3. Students will differentiate between the states of water and how they relate to the water cycle and weather.
a. Demonstrate how water changes from solid (ice) to liquid (water) to gas (water vapor/steam) and changes from gas to liquid to solid.
Student Edition: pages 190, 191, 192, 193 **Teacher's Guide:** pages 76, 77 **Skills Workbook:** pages 75, 76

Earth Science
S4E3. Students will differentiate between the states of water and how they relate to the water cycle and weather.
b. Identify the temperature at which water becomes a solid and at which water becomes a gas.
Student Edition: pages 8, 9, 10, 11, 12, 13, 174, 175, 176, 177, 178, 179 **Teacher's Guide:** pages 4, 5, 70, 71 **Skills Workbook:** pages 3, 4

Earth Science
S4E3. Students will differentiate between the states of water and how they relate to the water cycle and weather.
c. Investigate how clouds are formed.
Student Edition: pages 190, 191, 192, 193 **Teacher's Guide:** pages 76, 77 **Skills Workbook:** pages 75, 76

Earth Science
S4E3. Students will differentiate between the states of water and how they relate to the water cycle and weather.
d. Explain the water cycle (evaporation, condensation, and precipitation).
Student Edition: pages 190, 191, 192, 193 **Teacher's Guide:** pages 76, 77 **Skills Workbook:** pages 75, 76

Earth Science
S4E3. Students will differentiate between the states of water and how they relate to the water cycle and weather.
e. Investigate different forms of precipitation and sky conditions (rain, snow, sleet, hail, clouds, and fog).
Grade 4 Student Book: pages 8, 9, 10, 11, 12, 13, 174, 175, 176, 177, 178, 179, 190, 191, 192, 193 **Grade 4 Teacher's Guide:** pages 3, 4, 70, 71, 76, 77 **Grade 4 Skills Workbook:** pages 3, 4

Earth Science
S4E4. Students will analyze weather charts/maps and collect weather data to predict weather events and infer patterns and seasonal changes.
a. Identify weather instruments and explain how each is used in gathering weather data and making forecasts (thermometer, rain gauge, barometer, wind vane, anemometer).
Grade 4 Student Book: pages 8, 9, 10, 11, 12, 13, 174, 175, 176, 177, 178, 179, 190, 191, 192, 193 **Grade 4 Teacher's Guide:** pages 4, 5, 70, 71, 76, 77 **Grade 4 Skills Workbook:** pages 3, 4, 69, 70, 75, 76

Earth Science
S4E4. Students will analyze weather charts/maps and collect weather data to predict weather events and infer patterns and seasonal changes.
b. Using a weather map, identify the fronts, temperatures, and precipitation and use the information to interpret the weather conditions.
Grade 4 Student Book: pages 8, 9, 10, 11, 12, 13, 174, 175, 176, 177, 178, 179, 190, 191, 192, 193 **Grade 4 Teacher's Guide:** pages 4, 5, 70, 71, 76, 77 **Grade 4 Skills Workbook:** pages 3, 4, 69, 70, 75, 76

Earth Science
S4E4. Students will analyze weather charts/maps and collect weather data to predict weather events and infer patterns and seasonal changes.
c. Use observations and records of weather conditions to predict weather patterns throughout the year.
Grade 4 Student Book: pages 8, 9, 10, 11, 12, 13, 174, 175, 176, 177, 178, 179, 190, 191, 192, 193 **Grade 4 Teacher's Guide:** pages 4, 5, 70, 71, 76, 77 **Grade 4 Skills Workbook:** pages 3, 4, 69, 70, 75, 76

Earth Science
S4E4. Students will analyze weather charts/maps and collect weather data to predict weather events and infer patterns and seasonal changes.
d. Differentiate between weather and climate.
Student Edition: pages 190, 191, 192, 193 **Teacher's Guide:** pages 76, 77 **Skills Workbook:** pages 75, 76

Physical Science
S4P1. Students will investigate the nature of light using tools such as mirrors, lenses, and prisms.
a. Identify materials that are transparent, opaque, and translucent.
This concept is not covered at this level.

Physical Science
S4P1. Students will investigate the nature of light using tools such as mirrors, lenses, and prisms.
b. Investigate the reflection of light using a mirror and a light source.
This concept is not covered at this level.

Physical Science
S4P1. Students will investigate the nature of light using tools such as mirrors, lenses, and prisms.
c. Identify the physical attributes of a convex lens, a concave lens, and a prism and where each is used.
Student Edition: pages 148, 149, 150, 151, 152, 153 **Teacher's Guide:** pages 60, 61 **Skills Workbook:** pages 59, 60

Physical Science
S4P2. Students will demonstrate how sound is produced by vibrating objects and how sound can be varied by changing the rate of vibration.
a. Investigate how sound is produced.
This concept is not covered at this level.

Physical Science
S4P2. Students will demonstrate how sound is produced by vibrating objects and how sound can be varied by changing the rate of vibration.
b. Recognize the conditions that cause pitch to vary.
This concept is not covered at this level.

Physical Science
S4P3. Students will demonstrate the relationship between the application of a force and the resulting change in position and motion on an object.
a. Identify simple machines and explain their uses (levers, pulley, wedge, inclined plane, screw, wheel and axle).
Student Edition: pages 50, 51, 52, 53, 142, 143, 144, 145, 146, 147 **Teacher's Guide:** pages 20, 21, 58, 59 **Skills Workbook:** pages 19, 20, 57, 58

Physical Science
S4P3. Students will demonstrate the relationship between the application of a force and the resulting change in position and motion on an object.
b. Using different size objects, observe how force affects speed and motion.
Student Edition: pages 22, 23, 24, 25, 26, 27 **Teacher's Guide:** pages 10, 11 **Skills Workbook:** pages 9, 10

Physical Science
S4P3. Students will demonstrate the relationship between the application of a force and the resulting change in position and motion on an object.
c. Explain what happens to the speed or direction of an object when a greater force that the initial one is applied.
Grade 4 Student Book: pages 22, 23, 24, 25, 26, 27 **Grade 4 Teacher's Guide:** pages 10, 11 **Grade 4 Skills Workbook:** pages 9, 10

Physical Science
S4P3. Students will demonstrate the relationship between the application of a force and the resulting change in position and motion on an object.
d. Demonstrate the effect of gravitational force on the motion of an object.
This concept is not covered at this level.

Life Science
S4L1. Students will describe the roles of organisms and the flow of energy within an ecosystem.
a. Identify the roles of producers, consumers, and decomposers in a community.
Student Edition: pages 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 94, 95, 96, 97, 100, 101, 102, 103, 166, 167, 168, 169, 184, 185, 186, 187, 188, 189 **Teacher's Guide:** pages 16, 17, 18, 19, 26, 27, 28, 29, 40, 41, 42, 43, 66, 67, 74, 75 **Skills Handbook:** pages 15, 16, 17, 18, 25, 26, 27, 28, 39, 40, 41, 42, 65, 66, 73, 74

Life Science
S4L1. Students will describe the roles of organisms and the flow of energy within an ecosystem.
b. Demonstrate the flow of energy through a food web/food chain beginning with sunlight and including producers, consumers, and decomposers.
Student Edition: pages 14, 15, 16, 17, 42, 43, 44, 45, 46, 47, 68, 69, 70, 71, 94, 95, 96, 97 **Teacher's Guide:** pages 6, 7, 18, 19, 28, 29, 40, 41 **Skills Workbook:** pages 5, 6, 17, 18, 27, 28, 39, 40

Life Science
S4L1. Students will describe the roles of organisms and the flow of energy within an ecosystem.
c. Predict how changes in the environment would affect a community (ecosystem) of organisms.
Student Edition: pages 62, 63, 64, 65, 66, 67, 104, 105, 106, 107, 154, 155, 156, 157, 158, 159, 166, 167, 168, 169, 198, 199, 200, 201 **Teacher's Guide:** pages 26, 27, 44, 45, 62, 63, 66, 67, 80, 81 **Skills Workbook:** pages 25, 26, 43, 44, 61, 62, 65, 66, 79, 80

Life Science
S4L1. Students will describe the roles of organisms and the flow of energy within an ecosystem.
d. Predict effects on a population if some of the plants or animals in the community are scarce or if there are too many.
Grade 4 Student Book: pages 32, 33, 34, 35, 36, 37, 62, 63, 64, 65, 66, 67, 94, 95, 96, 97, 100, 101, 102, 103, 104, 105, 106, 107, 154, 155, 156, 157, 158, 159, 166, 167, 168, 169, 198, 199, 200, 201 **Grade 4 Teacher's Guide:** pages 14, 15, 26, 27, 40, 41, 42, 43, 44, 45, 62, 63, 66, 67, 80, 81 **Grade 4 Skills Workbook:** pages 13, 14, 41, 42

Life Science
S4L2. Students will identify factors that affect the survival or extinction of organisms such as adaptation, variation of behaviors (hibernation) and external features (camouflage and protection).
a. Identify external features of organisms that allow them to survive or reproduce better than organisms that do not have these features (e.g., camouflage, use of hibernation, protection, etc.).
Student Edition: pages 62, 63, 64, 65, 66, 67, 86, 87, 88, 89, 100, 101, 102, 103, 166, 167, 168, 169, 184, 185, 186, 187, 188, 189 **Teacher's Guide:** pages 26, 27, 36, 37, 42, 43, 66, 67, 74, 75 **Skills Handbook:** pages 25, 26, 35, 36, 41, 42, 65, 66, 73, 74

Life Science
S4L2. Students will identify factors that affect the survival or extinction of organisms such as adaptation, variation of behaviors (hibernation) and external features (camouflage and protection).
b. Identify factors that may have led to the extinction of some organisms.
Grade 4 Student Book: pages 62, 63, 64, 65, 66, 67, 166, 167, 168, 169 **Grade 4 Teacher's Guide:** pages 26, 27, 66, 67, 80, 81

SRA Skills Handbook: Using Science
correlation to
Georgia's Performance Standards for Science
Grade 5

Habits of Mind
S5CS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
a. Keep records of investigations and observations and do not alter the records later.
Student Edition: pages 10, 11, 12, 13, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 80, 81, 82, 83, 84, 85, 96, 97, 98, 99, 100, 101 **Teacher's Guide:** pages 4, 5, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 34, 35, 40, 41 **Skills Workbook:** pages 3, 4, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 33, 34, 39, 40

Habits of Mind
S5CS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
b. Carefully distinguish observations from ideas and speculation about those observations.
Student Edition: pages 10, 11, 12, 13, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41 **Teacher's Guide:** pages 4, 5, 10, 11, 12, 13, 14, 15, 16, 17 **Skills Workbook:** pages 3, 4, 9, 10, 11, 12, 13, 14, 15, 16

Habits of Mind
S5CS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
c. Offer reasons for findings and consider reasons suggested by others.
Student Edition: pages 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 80, 81, 82, 83, 84, 85, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201 **Teacher's Guide:** pages 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 34, 35, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81 **Skills Workbook:** pages 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 33, 34, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80

Habits of Mind
S5CS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
d. Take responsibility for understanding the importance of being safety conscious.
Student Edition: pages 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201 **Teacher's Guide:** pages 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36,3 7, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81 **Skills Workbook:** pages 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36,3 7, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80

Habits of Mind
S5CS2. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
a. Add, subtract, multiply, and divide whole numbers mentally, on paper, and with a calculator.
Student Edition: pages 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 50, 51, 52, 53, 80, 81, 82, 83, 84, 85, 102, 103, 104, 105, 154, 155, 156, 157, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177 **Teacher's Guide:** pages 2, 3, 4, 5, 10, 11, 12, 13, 20, 21, 34, 35, 42, 43, 62, 63, 66, 67, 68, 69, 70, 71 **Skills Workbook:** pages 1, 2, 3, 4, 9, 10, 11, 12, 19, 20, 33, 34, 41, 42, 61, 62, 65, 66, 67, 68, 69, 70

Habits of Mind
S5CS2. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
b. Use fractions and decimals, and translate between decimals and commonly encountered fractions—halves, thirds, fourths, fifths, tenths, and hundredths (but not sixths, sevenths, and so on)—in scientific calculations.
Student Edition: pages 22, 23, 24, 25, 50, 51, 52, 53, 166, 167, 168, 169, 178, 179, 180, 181 **Teacher's Guide:** pages 10, 11, 20, 21, 66, 67, 72, 73 **Skills Workbook:** pages 9, 10, 19, 20, 65, 66, 71, 72

Habits of Mind
S5CS2. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
c. Judge whether measurements and computations of quantities, such as length, area, volume, weight, or time, are reasonable answers to scientific problems by comparing them to typical values.
Student Edition: pages 10, 11, 12, 13, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181 **Teacher's Guide:** pages 4, 5, 10, 11, 12, 13, 34, 35, 68, 69, 70, 71, 72, 73 **Skills Workbook:** pages 3, 4, 9, 10, 11, 12, 15, 16, 67, 68, 69, 70, 71, 72

Habits of Mind
S5CS3. Students will use tools and instruments for observing, measuring, and manipulating objects in scientific activities utilizing laboratory procedures.
a. Choose appropriate common materials for making simple mechanical constructions and repairing things.
Student Edition: pages 32, 33, 34, 35, 36, 37, 90, 91, 92, 93 **Teacher's Guide:** pages 14, 15, 38, 39 **Skills Workbook:** pages 13, 14, 37, 38

Habits of Mind
S5CS3. Students will use tools and instruments for observing, measuring, and manipulating objects in scientific activities utilizing laboratory procedures.
b. Measure and mix dry and liquid materials in prescribed amounts, exercising reasonable safety.
Student Edition: pages 32, 33, 34, 35, 36, 37 **Teacher's Guide:** pages 14, 15

Habits of Mind
S5CS3. Students will use tools and instruments for observing, measuring, and manipulating objects in scientific activities utilizing laboratory procedures.
c. Use computers, cameras, and recording devices for capturing information.
Student Edition: pages 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141 **Teacher's Guide:** pages 3, 9, 11, 13, 15, 17, 19, 21, 25, 27, 29, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79, 81 **Skills Workbook:** pages 53, 54, 55, 56

Habits of Mind
S5CS3. Students will use tools and instruments for observing, measuring, and manipulating objects in scientific activities utilizing laboratory procedures.
d. Identify and practice accepted safety procedures in manipulating science materials and equipment.
Student Edition: pages 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201 **Teacher's Guide:** pages 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36,3 7, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81 **Skills Workbook:** pages 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36,3 7, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80

Habits of Mind
S5CS4. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.
a. Observe and describe how parts influence one another in things with many parts.
Student Edition: pages 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 18, 19, 20, 21, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 154, 155, 156, 157, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201 **Teacher's Guide:** pages 2, 3, 4, 5, 8, 9, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81 **Skills Workbook:** pages 1, 2, 3, 4, 7, 8, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80

Habits of Mind
S5CS4. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.
b. Use geometric figures, number sequences, graphs, diagrams, sketches, number lines, maps, and stories to represent corresponding features of objects, events, and processes in the real world. Identify ways in which the representations do not match their original counterparts.
Student Edition: pages 4, 5, 6, 7, 8, 9, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 42, 43, 44, 45, 46, 47, 50, 51, 52, 53, 80, 81, 82, 83, 84, 85, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201 **Teacher's Guide:** pages 2, 3, 10, 11, 12, 13, 18, 19, 20, 21, 34, 35, 38, 39, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81 **Skills Workbook:** pages 1, 2, 9, 10, 11, 12, 17, 18, 19, 20, 33, 34, 37, 38, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81

Habits of Mind
S5CS4. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.
c. Identify patterns of change in things—such as steady, repetitive, or irregular change—using records, tables, or graphs of measurements where appropriate.
Student Edition: pages 4, 5, 6, 7, 8, 9, 18, 19, 20, 21, 32, 33, 34, 35, 36, 37, 96, 97, 98, 99, 100, 101, 160, 161, 162, 163, 164, 165, 174, 175, 176, 177 **Teacher's Guide:** pages 2, 3, 8, 9, 14, 15, 40, 41, 64, 65, 70, 71 **Skills Workbook:** pages 1, 2, 7, 8, 13, 14, 39, 40, 63, 64, 69, 70

Habits of Mind
S5CS4. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.
d. Identify the biggest and the smallest possible values of something.
Student Edition: pages 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 50, 51, 52, 53, 80, 81, 82, 83, 84, 85, 154, 155, 156, 157, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 198, 199, 200, 201 **Teacher's Guide:** pages 2, 3, 4, 5, 10, 11, 12, 13, 20, 21, 34, 35, 62, 63, 66, 67, 68, 69, 70, 71, 72, 73, 80, 81 **Skills Workbook:** pages 1, 2, 3, 4, 9, 10, 11, 12, 19, 20, 33, 34, 61, 62, 65, 66, 67, 68, 69, 70, 71, 72, 79, 80

Habits of Mind
S5CS5. Students will communicate scientific ideas and activities clearly.
a. Write instructions that others can follow in carrying out a scientific procedure.
Student Edition: pages 18, 19, 20, 21, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 42, 43, 44, 45, 46, 47, 120, 121, 122, 123, 124, 125, 126, 127, 28, 129, 188, 189, 190, 191, 192, 193 **Teacher's Guide:** pages 8, 9, 12, 13, 14, 15, 18, 19, 50, 51, 52, 53, 76, 77 **Skills Workbook:** pages 7, 8, 11, 12, 13, 14, 17, 18, 49, 50, 51, 52, 75, 76

Habits of Mind
S5CS5. Students will communicate scientific ideas and activities clearly.
b. Make sketches to aid in explaining scientific procedures or ideas.
Student Edition: pages 86, 87, 88, 89, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 198, 199, 200, 201 **Teacher's Guide:** pages 36, 37, 50, 51, 52, 53, 80, 81 **Skills Workbook:** pages 35, 36, 49, 50, 51, 52, 79, 80

Habits of Mind
S5CS5. Students will communicate scientific ideas and activities clearly.
c. Use numerical data in describing and comparing objects and events.
Student Edition: pages 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 50, 51, 52, 53, 80, 81, 82, 83, 84, 85, 154, 155, 156, 157, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 198, 199, 200, 201 **Teacher's Guide:** pages 2, 3, 4, 5, 10, 11, 12, 13, 20, 21, 34, 35, 62, 63, 66, 67, 68, 69, 70, 71, 72, 73, 80, 81 **Skills Workbook:** pages 1, 2, 3, 4, 9, 10, 11, 12, 19, 20, 33, 34, 61, 62, 65, 66, 67, 68, 69, 70, 71, 72, 79, 80

Habits of Mind
S5CS5. Students will communicate scientific ideas and activities clearly.
d. Locate scientific information in reference books, back issues of newspapers and magazines, CD-ROMs, and computer databases.
Student Edition: pages 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153 **Teacher's Guide:** pages 3, 5, 9, 11, 13, 15, 17, 19, 21, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 54, 55, 56, 57, 58, 59, 60, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79, 81 **Skills Workbook:** pages 52, 53, 54, 55, 56, 57, 58, 59, 60

Habits of Mind
S5CS6. Students will question scientific claims and arguments effectively.
a. Support statements with facts found in books, articles, and databases, and identify the sources used.
Student Edition: pages 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153 **Teacher's Guide:** pages 3, 5, 9, 11, 13, 15, 17, 19, 21, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 54, 55, 56, 57, 58, 59, 60, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79, 81 **Skills Workbook:** pages 52, 53, 54, 55, 56, 57, 58, 59, 60

Habits of Mind
S5CS6. Students will question scientific claims and arguments effectively.
b. Identify when comparisons might not be fair because some conditions are different.
Student Edition: pages 22, 23, 24, 25, 32, 33, 34, 35, 36, 37 **Teacher's Guide:** pages 10, 11, 14, 15 **Skills Workbook:** pages 9, 10, 13, 14

The Nature of Science
S5CS7. Students will be familiar with the character of scientific knowledge and how it is achieved.
a. Students will recognize that similar scientific investigations seldom produce exactly the same results, which may differ due to unexpected differences in whatever is being investigated, unrecognized differences in the methods or circumstances of the investigation, or observational uncertainties.
Student Edition: pages 22, 23, 24, 25, 32, 33, 34, 35, 36, 37 **Teacher's Guide:** pages 10, 11, 14, 15 **Skills Workbook:** pages 9, 10, 13, 14

The Nature of Science
S5CS7. Students will be familiar with the character of scientific knowledge and how it is achieved.
b. Students will recognize that some scientific knowledge is very old and yet is still applicable today.
Student Edition: pages 18, 19, 20, 21, 26, 27, 28, 29, 30, 31, 102, 103, 104, 105, 136, 137, 138, 139, 140, 141, 166, 167, 168, 169 **Teacher's Guide:** pages 8, 9, 11, 12, 13, 42, 43, 56, 57, 66, 67 **Skills Workbook:** pages 11, 12, 41, 42, 55, 56, 65, 66

The Nature of Science
S5CS8. Students will understand important features of the process of scientific inquiry.
a. Students will apply the following to inquiry learning practices: Scientific investigations may take many different forms, including observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.
Student Edition: pages 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201 **Teacher's Guide:** pages 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36,3 7, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81 **Skills Workbook:** pages 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36,3 7, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80

The Nature of Science
S5CS8. Students will understand important features of the process of scientific inquiry.
b. Students will apply the following to inquiry learning practices: Clear and active communication is an essential part of doing science. It enables scientists to inform others about their work, expose their ideas to criticism by other scientists, and stay informed about scientific discoveries around the world.
Student Edition: pages 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201 **Teacher's Guide:** pages 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36,3 7, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81 **Skills Workbook:** pages 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36,3 7, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80

The Nature of Science
S5CS8. Students will understand important features of the process of scientific inquiry.
c. Students will apply the following to inquiry learning practices: Scientists use technology to increase their power to observe things and to measure and compare things accurately.
Student Edition: pages 10, 11, 12, 13, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41 **Teacher's Guide:** pages 4, 5, 10, 11, 12, 13, 14, 15, 16, 17 **Skills Workbook:** pages 3, 4, 9, 10, 11, 12, 13, 14, 15, 16

The Nature of Science
S5CS8. Students will understand important features of the process of scientific inquiry.
d. Students will apply the following to inquiry learning practices: Science involves many different kinds of work and engages men and women of all ages and backgrounds.
Student Edition: pages 18, 19, 20, 21, 26, 27, 28, 29, 30, 31, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 102, 103, 104, 105, 136, 137, 138, 139, 140, 141, 148, 149, 150, 151, 152, 153, 182, 183, 184, 185, 186, 187 **Teacher's Guide:** pages 5, 8, 9, 11, 12, 13, 25, 28, 29, 30, 31, 42, 43, 56, 57, 60, 61, 74, 75 **Skills Workbook:** pages 11, 29, 30, 31, 32, 41, 42, 73, 74

Earth Science
S5E1. Students will identify surface features of the Earth caused by constructive and destructive processes.
a. Identify surface features caused by constructive processes. • **Deposition (deltas, sand dunes, etc.)** • **Earthquakes** • **Volcanoes** • **Faults.**
Student Edition: pages 32, 33, 34, 35, 36, 37, 166, 167, 168, 169 **Teacher's Guide:** pages 14, 15, 66, 67 **Skills Workbook:** pages 13, 14, 65, 66

Earth Science
S5E1. Students will identify surface features of the Earth caused by constructive and destructive processes.
b. Identify and find examples of surface features caused by destructive processes. • **Erosion (water—rivers and oceans, wind)** • **Weathering** • **Impact of organisms** • **Earthquake** • **Volcano.**
Student Edition: pages 32, 33, 34, 35, 36, 37, 166, 167, 168, 169 **Teacher's Guide:** pages 14, 15, 66, 67 **Skills Workbook:** pages 13, 14, 65, 66

Earth Science
S5E1. Students will identify surface features of the Earth caused by constructive and destructive processes.
c. Relate the role of technology and human intervention in the control of constructive and destructive processes. Examples include, but are not limited to: • **Seismological studies** • **Flood control (dams, levees, storm drain management, etc.)** • **Beach reclamation (Georgia coastal islands).**
Student Edition: pages 32, 33, 34, 35, 36, 37, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 124, 125, 126, 127, 128, 129, 178, 179, 180, 181 **Teacher's Guide:** pages 14, 15, 30, 31, 32, 33, 52, 53, 72, 73 **Skills Workbook:** pages 13, 14, 29, 30, 31, 32, 51, 52, 71, 72

Physical Science
S5P1. Students will verify that an object is the sum of its parts.
a. Demonstrate that the mass of an object is equal to the sum of its arts by manipulating and measuring different objects made of various parts.
Student Edition: pages 10, 11, 12, 13 **Teacher's Guide:** pages 4, 5 **Skills Workbook:** pages 3, 4

Physical Science
S5P1. Students will verify that an object is the sum of its parts.
b. Investigate how common items have parts that are too small to be seen without magnification.
Student Edition: pages 42, 43, 44, 45, 46, 47 **Teacher's Guide:** pages 18, 19 **Skills Workbook:** pages 17, 18

Physical Science
S5P2. Students will explain the difference between a physical change and a chemical change.
a. Investigate physical changes by separating mixtures and manipulating (cutting, tearing, folding) paper to demonstrate examples of physical change.
Student Edition: pages 14, 15, 16, 17, 32, 33, 34, 35, 36, 37, 42, 43 44, 45, 46, 47 **Teacher's Guide:** pages 6, 7, 14, 15, 18, 19 **Skills Workbook:** pages 5, 6, 13, 14, 17, 18

Physical Science
S5P2. Students will explain the difference between a physical change and a chemical change.
b. Recognize that the changes in state of water (water vapor/steam, liquid, ice) are due to temperature differences and are examples of physical change.
Student Edition: pages 10, 11, 12, 13, 22, 23, 24, 25, 42, 43, 44, 45, 46, 47 **Teacher's Guide:** pages 4, 5, 10, 11, 18, 19 **Skills Workbook:** pages 3, 4, 9, 10, 17, 18

Physical Science
S5P2. Students will explain the difference between a physical change and a chemical change.
c. Investigate the properties of a substance before, during, and after a chemical reaction to find evidence of change.
Student Edition: pages 32, 33, 34, 35, 36, 37 **Teacher's Guide:** pages 14, 15 **Skills Workbook:** pages 13, 14

Physical Science
S5P3. Students will investigate electricity, magnetism, and their relationship.
a. Investigate static electricity.
This concept is not covered at this level.

Physical Science
S5P3. Students will investigate electricity, magnetism, and their relationship.
b. Determine the necessary components for completing an electric circuit.
This concept is not covered at this level.

Physical Science
S5P3. Students will investigate electricity, magnetism, and their relationship.
c. Investigate common materials to determine if they are insulators or conductors of electricity.
This concept is not covered at this level.

Physical Science
S5P3. Students will investigate electricity, magnetism, and their relationship.
d. Compare a bar magnet to an electromagnet.
This concept is not covered at this level.

Life Science
S5L1. Students will classify organisms into groups and relate how they determined the groups and how and why scientists use classification.
a. Demonstrate how animals are sorted into groups (vertebrates and invertebrates) and how vertebrates are sorted into groups (fish, amphibian, reptile, bird, and mammal).
Student Edition: pages 96, 97, 98, 99, 100, 101, 116, 117, 118, 119, 194, 195, 196, 197 **Teacher's Guide:** pages 40, 41, 48, 49, 78, 79 **Skills Workbook:** pages 39, 40, 47, 48, 77, 78

Life Science
S5L1. Students will classify organisms into groups and relate how they determined the groups and how and why scientists use classification.
b. Demonstrate how plants are sorted into groups.
Student Edition: pages 86, 87, 88, 89 **Teacher's Guide:** pages 36, 37 **Skills Workbook:** pages 35, 36

Life Science
S5L2. Students will recognize that offspring can resemble parents in inherited traits and learned behaviors.
a. Compare and contrast the characteristics of learned behaviors and of inherited traits.
Student Edition: pages 38, 39, 40, 41, 70, 71, 72, 73, 74, 75, 142, 143, 144, 145, 146, 147, 188, 189, 190, 191, 192, 193 **Teacher's Guide:** pages 16, 17, 30, 31, 58, 59, 76, 77 **Skills Workbook:** pages 15, 16, 29, 30, 57, 58, 75, 76

Life Science
S5L2. Students will recognize that offspring can resemble parents in inherited traits and learned behaviors.
b. Discuss what a gene is and the role genes play in the transfer of traits.
Student Edition: pages 70, 71, 72, 73, 74, 75, 142, 143, 144, 145, 146, 147 **Teacher's Guide:** pages 30, 31, 58, 59 **Skills Workbook:** pages 29, 30, 57, 58

Life Science
S5L3. Students will diagram and label parts of various cells (plant, animal, single-celled, multi-celled).
a. Use magnifiers such as microscopes or hand lenses to observe cells and their structure.
This concept is not covered at this level.

Life Science
S5L3. Students will diagram and label parts of various cells (plant, animal, single-celled, multi-celled).
b. Identify parts of a plant cell (membrane, wall, cytoplasm, nucleus, chloroplasts) and of an animal cell (membrane, cytoplasm, and nucleus) and determine the function of the parts.
This concept is not covered at this level.

Life Science
S5L3. Students will diagram and label parts of various cells (plant, animal, single-celled, multi-celled).
c. Explain how cells in multi-celled organisms are similar and different in structure and function to single-celled organisms.
Student Edition: pages 54, 55, 56, 57 **Teacher's Guide:** pages 22, 23 **Skills Workbook:** pages 21, 22

Life Science
S5L4. Students will relate how microorganisms benefit or harm larger organisms.
a. Identify beneficial microorganisms and explain why they are beneficial.
This concept is not covered at this level.

Life Science
S5L4. Students will relate how microorganisms benefit or harm larger organisms.
b. Identify harmful microorganisms and explain why they are harmful.
Student Edition: pages 120, 121, 122, 123 **Teacher's Guide:** pages 50, 51

SRA Skills Handbook: Using Science
correlation to
Georgia's Performance Standards for Science
Grade 6

Habits of Mind
S6CS1. Students will explore the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
a. Understand the importance of—and keep-honest, clear, and accurate records in science.
Student Edition: pages 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 42, 43, 44, 45, 46, 47, 50, 51, 52, 53 **Teacher's Guide:** pages 4, 5, 6, 7, 10, 11, 12, 13, 14, 15, 18, 19, 20, 21 **Skills Workbook:** pages 3, 4, 5, 6, 9, 10, 11, 12, 13, 14, 17, 18, 19, 20

Habits of Mind
S6CS1. Students will explore the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
b. Understand that hypotheses are valuable if they lead to fruitful investigations, even if the hypotheses turn out not to be completely accurate descriptions.
Student Edition: pages 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 70, 71, 72, 73 **Teacher's Guide:** pages 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 30, 31 **Skills Workbook:** pages 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 29, 30

Habits of Mind
S6CS2. Students will use standard safety practices for all classroom laboratory and field investigations.
a. Follow correct procedures for use of scientific apparatus.
Student Edition: pages 14, 15, 16, 17, 32, 33, 34, 35, 36, 37 **Teacher's Guide:** pages 6, 7, 14, 15 **Skills Workbook:** pages 5, 6, 13, 14

Habits of Mind
S6CS2. Students will use standard safety practices for all classroom laboratory and field investigations.
b. Demonstrate appropriate techniques in all laboratory situations.
Student Edition: pages 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201 **Teacher's Guide:** pages 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36,3 7, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81 **Skills Workbook:** pages 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80

Habits of Mind
S6CS2. Students will use standard safety practices for all classroom laboratory and field investigations.
c. Follow correct protocol for identifying and reporting safety problems and violations.
Student Edition: pages 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201 **Teacher's Guide:** pages 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36,3 7, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81 **Skills Workbook:** pages 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80

Habits of Mind
S6CS3. Students will use computation and estimation skills necessary for analyzing data and following scientific explanations.
a. Analyze scientific data by using, interpreting, and comparing numbers in several equivalent forms, such as integers and decimals.
Student Edition: pages 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 42, 43, 44, 45, 46, 47, 50, 51, 52, 53, 54, 55, 56, 57, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 146, 147, 148, 149, 150, 151, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201 **Teacher's Guide:** pages 10, 11, 12, 13, 14, 15, 18, 19, 20, 21, 22, 23, 36, 37, 38, 39, 60, 61, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81 **Skills Workbook:** pages 9, 10, 11, 12, 13, 14, 17, 18, 19, 20, 21, 22, 35, 36, 37, 38, 59, 60, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80

Habits of Mind
S6CS3. Students will use computation and estimation skills necessary for analyzing data and following scientific explanations.
b. Use metric input units (such as seconds, meters, or grams per milliliter) of scientific calculations to determine the proper unit for expressing the answer.
Student Edition: pages 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 22, 23, 24, 25, 32, 33, 34, 35, 36, 37, 42, 43, 44, 45, 46, 47, 50, 51, 52, 53 **Teacher's Guide:** pages 4, 5, 6, 7, 10, 11, 14, 15, 18, 19, 20, 21 **Skills Workbook:** pages 3, 4, 5, 6, 9, 10, 13, 14, 17, 18, 19, 20

Habits of Mind
S6CS3. Students will use computation and estimation skills necessary for analyzing data and following scientific explanations.
c. Address the relationship between accuracy and precision and the importance of each.
Student Edition: pages 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 32, 33, 34, 35, 36, 37, 70, 71, 72, 73 **Teacher's Guide:** pages 4, 5, 6, 7, 14, 15, 30, 31 **Skills Workbook:** pages 3, 4, 5, 6, 13, 14, 29, 30

Habits of Mind
S6CS3. Students will use computation and estimation skills necessary for analyzing data and following scientific explanations.
d. Draw conclusions based on analyzed data.
Student Edition: pages 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37 **Teacher's Guide:** pages 4, 5, 6, 7, 10, 11, 12, 13, 14, 15 **Skills Workbook:** pages 3, 4, 5, 6, 9, 10, 11, 12, 13, 14

Habits of Mind
S6CS4. Students will use tools and instruments for observing, measuring, and manipulating equipment and materials in scientific activities.
a. Use appropriate technology to store and retrieve scientific information in topical, alphabetical, numerical, and keyword files, and create simple files.
Student Edition: pages 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 22, 23, 24, 25, 32, 33, 34, 35, 36, 37, 42, 43, 44, 45, 46, 47, 50, 51, 52, 53, 136, 137, 138, 139, 170, 171, 172, 173 **Teacher's Guide:** pages 4, 5, 6, 7, 10, 11, 14, 15, 18, 19, 20, 21, 56, 57, 68, 69 **Skills Workbook:** pages 3, 4, 5, 6, 9, 10, 13, 14, 17, 18, 19, 20, 55, 56, 67, 68

Habits of Mind
S6CS4. Students will use tools and instruments for observing, measuring, and manipulating equipment and materials in scientific activities.
b. Estimate the effect of making a change in one part of a system on the system as a whole.
Student Edition: pages 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 42, 43, 44, 45, 46, 47, 58, 59, 60, 61, 92, 93, 94, 95, 96, 97, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 120, 121, 122, 123, 124, 125, 140, 141, 142, 143, 144, 145, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 178, 179, 180, 181, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201 **Teacher's Guide:** pages 10, 11, 12, 13, 14, 15, 18, 19, 24, 25, 40, 41, 44, 45, 46, 47, 50, 51, 58, 59, 64, 65, 66, 67, 72, 73, 76, 77, 78, 79, 80, 81 **Skills Workbook:** pages 9, 10, 11, 12, 13, 14, 17, 18, 23, 24, 39, 40, 43, 44, 45, 46, 49, 50, 57, 58, 63, 64, 65, 66, 71, 72, 75, 76, 77, 78, 79, 80

Habits of Mind
S6CS4. Students will use tools and instruments for observing, measuring, and manipulating equipment and materials in scientific activities.
c. Read analog and digital meters on instruments used to make direct measurements of length, volume, weight, elapsed time, rates, and temperature, and choose appropriate units for reporting various quantities.
Student Edition: pages 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 22, 23, 24, 25, 32, 33, 34, 35, 36, 37, 42, 43, 44, 45, 46, 47, 50, 51, 52, 53 **Teacher's Guide:** pages 4, 5, 6, 7, 10, 11, 14, 15, 18, 19, 20, 21 **Skills Workbook:** pages 3, 4, 5, 6, 9, 10, 13, 14, 17, 18, 19, 20

Habits of Mind
S6CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.
a. Observe and describe how parts are related to other parts in systems such as weather systems, solar systems, and ocean systems including how the output from one part of a system (in the form of material, energy, or information) can become the input to other parts. (For example: El Nino's effect on weather)
Student Edition: pages 4, 5, 6, 7, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 42, 43, 44, 45, 46, 47, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 92, 93, 94, 95, 96, 97, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 120, 121, 122, 123, 124, 125, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201 **Teacher's Guide:** pages 2, 3, 8, 9, 10, 11, 12, 13, 14, 15, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 32, 33, 34, 35, 36, 37, 40, 41, 42, 43, 44, 45, 46, 47, 50, 51, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81 **Skills Workbook:** pages 1, 2, 7, 8, 9, 10, 11, 12, 13, 14, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 31, 32, 33, 34, 35, 36, 39, 40, 41, 42, 43, 44, 45, 46, 49, 50, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80

Habits of Mind
S6CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.
b. Identify several different models (such as physical replicas, pictures, and analogies) that could be used to represent the same thing, and evaluate their usefulness, taking into account such things as the model's purpose and complexity.
Student Edition: pages 4, 5, 6, 7 **Teacher's Guide:** pages 2, 3 **Skills Workbook:** pages 1, 2

Habits of Mind
S6CS6. Students will communicate scientific ideas and activities clearly.
a. Write clear, step-by-step instructions for conducting scientific investigations, operating a piece of equipment, or following a procedure.
Student Edition: pages 42, 43, 44, 45, 46, 47, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129 **Teacher's Guide:** pages 18, 19, 50, 51, 52, 53 **Skills Workbook:** pages 17, 18, 49, 50, 51, 52

Habits of Mind
S6CS6. Students will communicate scientific ideas and activities clearly.
b. Understand and describe how writing for scientific purposes is different than writing for literary purposes.
Student Edition: pages 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157 **Teacher's Guide:** pages 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63 **Skills Workbook:** pages 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62

Habits of Mind
S6CS6. Students will communicate scientific ideas and activities clearly.
c. Organize scientific information using appropriate tables, charts, and graphs, and identify relationships they reveal.
Student Edition: pages 22, 23, 24, 25, 32, 33, 34, 35, 36, 37, 42, 43, 44, 45, 46, 47, 50, 51, 52, 53, 54, 55, 56, 57, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 146, 147, 148, 149, 150, 151, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201 **Teacher's Guide:** pages 10, 11, 14, 15, 18, 19, 20, 21, 22, 23, 36, 37, 38, 39, 60, 61, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81 **Skills Workbook:** pages 9, 10, 13, 14, 17, 18, 19, 20, 21, 22, 35, 36, 37, 38, 59, 60, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80

Habits of Mind
S6CS7. Students will question scientific claims and arguments effectively.
a. Question claims based on vague attributes (such as "Leading doctors say…") or on statements made by people outside the area of their particular expertise.
Student Edition: pages 58, 59, 60, 61 **Teacher's Guide:** pages 24, 25 **Skills Workbook:** pages 23, 24

Habits of Mind
S6CS7. Students will question scientific claims and arguments effectively.
b. Recognize that there may be more than one way to interpret a given set of findings.
Student Edition: pages 4, 5, 6, 7, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 78, 79, 80, 81 **Teacher's Guide:** pages 2, 3, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 34, 35 **Skills Workbook:** pages 1, 2, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 33, 34

The Nature of Science
S6CS8. Students will be familiar with the characteristics of scientific knowledge and how it is achieved.
a. Students will apply the following to scientific concepts: When similar investigations give different results, the scientific challenges is to judge whether the differences are trivial or significant, which often requires further study. Even with similar results, scientists may wait until an investigation bas been repeated many times before accepting the results as meaningful.
Student Edition: pages 18, 19, 20, 21, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 70, 71, 72, 73 **Teacher's Guide:** pages 8, 9, 12, 13, 14, 15, 30, 31 **Skills Workbook:** pages 7, 8, 11, 12, 13, 14, 29, 30

The Nature of Science
S6CS8. Students will be familiar with the characteristics of scientific knowledge and how it is achieved.
b. Students will apply the following to scientific concepts: When new experimental results are inconsistent with an existing, well-established theory, scientists may require further experimentation to decide whether the results are flawed or the theory requires modification.
Student Edition: pages 22, 23, 24, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35, 36, 37 **Teacher's Guide:** pages 10, 11, 12, 13, 14, 15 **Skills Workbook:** pages 9, 10, 11, 12, 13, 14

The Nature of Science
S6CS8. Students will be familiar with the characteristics of scientific knowledge and how it is achieved.
c. Students will apply the following to scientific concepts: As prevailing theories are challenged by new information, scientific knowledge may change and grow.
Student Edition: pages 22, 23, 24, 25, 66, 67, 68, 69, 136, 137, 138, 139 **Teacher's Guide:** pages 10, 11, 28, 29, 56, 57 **Skills Workbook:** pages 9, 10, 27, 28, 55, 56

The Nature of Science
S6CS9. Students will understand important features of the process of scientific inquiry.
a. Students will apply the following to inquiry learning practices: Scientific investigations are conducted for different reasons. They usually involve collecting evidence, reasoning, devising hypotheses, and formulating explanations.
Student Edition: pages 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 70, 71, 72, 73 **Teacher's Guide:** pages 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 30, 31 **Skills Workbook:** pages 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 29, 30

The Nature of Science
S6CS9. Students will understand important features of the process of scientific inquiry.
b. Students will apply the following to inquiry learning practices: Scientists often collaborate to design research. To prevent bias, scientists conduct independent studies of the same questions.
Student Edition: pages 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201 **Teacher's Guide:** pages 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36,3 7, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81 **Skills Workbook:** pages 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36,3 7, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80

The Nature of Science
S6CS9. Students will understand important features of the process of scientific inquiry.
c. Students will apply the following to inquiry learning practices: Accurate record keeping, data sharing, and replication of results are essential for maintaining an investigator's credibility with other scientists and society.
Student Edition: pages 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 70, 71, 72, 73 **Teacher's Guide:** pages 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 30, 31 **Skills Workbook:** pages 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 29, 30

The Nature of Science
S6CS9. Students will understand important features of the process of scientific inquiry.
d. Students will apply the following to inquiry learning practices: Scientists use technology and mathematics to enhance the process of scientific inquiry.
Student Edition: pages 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 42, 43, 44, 45, 46, 47, 50, 51, 52, 53, 54, 55, 56, 57, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 146, 147, 148, 149, 150, 151, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201 **Teacher's Guide:** pages 10, 11, 12, 13, 14, 15, 18, 19, 20, 21, 22, 23, 36, 37, 38, 39, 60, 61, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81 **Skills Workbook:** pages 9, 10, 11, 12, 13, 14, 17, 18, 19, 20, 21, 22, 35, 36, 37, 38, 59, 60, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80

The Nature of Science
S6CS9. Students will understand important features of the process of scientific inquiry.
e. Students will apply the following to inquiry learning practices: The ethics of science require that special care must be taken and used for human subjects and animals in scientific research. Scientists must adhere to the appropriate rules and guidelines when conducting research.
Student Edition: pages 58, 59, 60, 61, 70, 71, 72, 73 **Teacher's Guide:** pages 24, 25, 30, 31 **Skills Workbook:** pages 23, 24, 29, 30

Reading Standard
S6CS10. Students will enhance reading in all curriculum areas by:
a. Reading in All Curriculum Areas • **Read a minimum of 25 grade-level appropriate books per year from a variety of subject disciplines and participate in discussions related to curricular learning in all areas.** • **Read both informational and fictional texts in a variety of genres and modes of discourse.** • **Read technical texts related to various subject areas.**
Student Edition: pages 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201 **Teacher's Guide:** pages 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36,3 7, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81 **Skills Workbook:** pages 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36,3 7, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80

Reading Standard

S6CS10. Students will enhance reading in all curriculum areas by:

b. Discussing books

- **Discuss messages and themes from books in all subject areas**
- **Respond to a variety of texts in multiple modes of discourse**
- **Relate messages and themes from one subject area to messages and themes in another area**
- **Evaluate the merit of texts in every subject disciplines**
- **Examine author's purpose in writing**
- **Recognize the features of disciplinary texts.**

Student Edition: pages 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201

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Reading Standard

S6CS10. Students will enhance reading in all curriculum areas by:

c. Building vocabulary knowledge

- **Demonstrate an understanding of contextual vocabulary in various subjects**
- **Use content vocabulary in writing and speaking**
- **Explore understanding of new words found in subject area texts.**

Student Edition: pages 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201

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Reading Standard
S6CS10. Students will enhance reading in all curriculum areas by:
d. Establishing context • **Explore life experiences related to subject area content** • **Discuss in both writing and speaking how certain words are subject area related** • **Determine strategies for finding content and contextual meaning for unknown words.**
Student Edition: pages 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201 **Teacher's Guide:** pages 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36,3 7, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81 **Skills Workbook:** pages 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36,3 7, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80

Earth Science
S6E1. Students will explore current scientific views of the universe and how those views evolved.
a. Relate the Nature of Science to the progression of basic historical scientific theories (geocentric and heliocentric) as they describe our solar system and the Big Bang as it describes the formation of the universe.
Student Edition: pages 66, 67, 68, 69, 170, 171, 172, 173 **Teacher's Guide:** pages 28, 29, 68, 69 **Skills Workbook:** pages 27, 28, 67, 68

Earth Science
S6E1. Students will explore current scientific views of the universe and how those views evolved.
b. Describe the position of the solar system in the Milky Way galaxy and the universe.
Student Edition: pages 170, 171, 172, 173 **Teacher's Guide:** pages 68, 69 **Skills Workbook:** pages 67, 68

Earth Science
S6E1. Students will explore current scientific views of the universe and how those views evolved.
c. Compare and contrast the planets in terms of: • **Size relative to the earth** • **Surface and atmospheric features** • **Relative distance from the sun** • **Ability to support life.**
Student Edition: pages 66, 67, 68, 69, 170, 171, 172, 173 **Teacher's Guide:** pages 28, 29, 68, 69 **Skills Workbook:** pages 27, 28, 67, 68

Earth Science
S6E1. Students will explore current scientific views of the universe and how those views evolved.
d. Explain the motion of objects in the day/night sky in terms of relative position.
Student Edition: pages 66, 67, 68, 69 **Teacher's Guide:** pages 28, 29 **Skills Workbook:** pages 27, 28

Earth Science
S6E1. Students will explore current scientific views of the universe and how those views evolved.
e. Explain that gravity is the force that governs the motion in the solar system.
Student Edition: pages 170, 171, 172, 173 **Teacher's Guide:** pages 68, 69 **Skills Workbook:** pages 67, 68

Earth Science
S6E1. Students will explore current scientific views of the universe and how those views evolved.
f. Describe the characteristics of comets, asteroids, and meteors.
This concept is not covered at this level.

Earth Science
S6E2. Students will understand the effects of the relative positions of the earth, moon, and sun.
a. Demonstrate the phases of the moon by showing the alignment of the earth, moon, and sun.
This concept is not covered at this level.

Earth Science
S6E2. Students will understand the effects of the relative positions of the earth, moon, and sun.
b. Explain the alignment of the earth, moon, and sun during solar and lunar eclipses.
This concept is not covered at this level.

Earth Science
S6E2. Students will understand the effects of the relative positions of the earth, moon, and sun.
c. Relate the tilt of the earth to the distribution of sunlight throughout the year and its effect on climate.
This concept is not covered at this level.

Earth Science
S6E3. Students will recognize the significant role of water in earth processes.
a. Explain that a large portion of the Earth's surface is water, consisting of oceans, rivers, lakes, underground water, and ice.
Student Edition: pages 82, 83, 84, 85, 86, 87 **Teacher's Guide:** pages 36, 37 **Skills Workbook:** pages 35, 36

Earth Science
S6E3. Students will recognize the significant role of water in earth processes.
b. Relate various atmospheric conditions to stages of the water cycle.
This concept is not covered at this level.

Earth Science
S6E3. Students will recognize the significant role of water in earth processes.
c. Describe the composition, location, and subsurface topography of the world's oceans.
This concept is not covered at this level.

Earth Science
S6E3. Students will recognize the significant role of water in earth processes.
d. Explain the causes of waves, currents, and tides.
This concept is not covered at this level.

Earth Science
S6E4. Students will understand how the distribution of land and oceans affects climate and weather.
a. Demonstrate that land and water absorb and lose heat at different rates and explain the resulting effects on weather patterns.
Student Edition: pages 62, 63, 64, 65, 174, 175, 176, 177 **Teacher's Guide:** pages 26, 27, 70, 71 **Skills Workbook:** pages 25, 26, 69, 70

Earth Science
S6E4. Students will understand how the distribution of land and oceans affects climate and weather.
b. Relate unequal heating of land and water surfaces to form large global wind systems and weather events such as tornadoes and thunderstorms.
Student Edition: pages 62, 63, 64, 65, 174, 175, 176, 177 **Teacher's Guide:** pages 26, 27, 70, 71 **Skills Workbook:** pages 25, 26, 69, 70

Earth Science
S6E4. Students will understand how the distribution of land and oceans affects climate and weather.
c. Relate how moisture evaporating from the oceans affects the weather patterns and weather events such as hurricanes.
Student Edition: pages 174, 175, 176, 177 **Teacher's Guide:** pages 70, 71 **Skills Workbook:** pages 69, 70

Earth Science
S6E5. Students will investigate the scientific view of how the earth's surface is formed.
a. Compare and contrast the Earth's crust, mantle, and core including temperature, density, and composition.
This concept is not covered at this level.

Earth Science
S6E5. Students will investigate the scientific view of how the earth's surface is formed.
b. Classify rocks by their process of formation.
This concept is not covered at this level.

Earth Science
S6E5. Students will investigate the scientific view of how the earth's surface is formed.
c. Describe processes that change rocks and the surface of the earth.
Student Edition: pages 26, 27, 28, 29, 30, 31, 174, 175, 176, 177 **Teacher's Guide:** pages 12, 13, 70, 71 **Skills Workbook:** pages 11, 12, 69, 70

Earth Science
S6E5. Students will investigate the scientific view of how the earth's surface is formed.
d. Recognize that lithospheric plates constantly move and cause major geological events on the earth's surface.
This concept is not covered at this level.

Earth Science
S6E5. Students will investigate the scientific view of how the earth's surface is formed.
e. Explain the effects of physical processes (plate tectonics, erosion, deposition, volcanic eruption, gravity) on geological features including oceans (composition, currents, and tides).
Student Edition: pages 26, 27, 28, 29, 30, 31, 174, 175, 176, 177 **Teacher's Guide:** pages 12, 13, 70, 71 **Skills Workbook:** pages 11, 12, 69, 70

Earth Science
S6E5. Students will investigate the scientific view of how the earth's surface is formed.
f. Describe how fossils show evidence of the changing surface and climate of the Earth.
Student Edition: pages 78, 79, 80, 81 **Teacher's Guide:** pages 34, 35 **Skills Workbook:** pages 33, 34

Earth Science
S6E5. Students will investigate the scientific view of how the earth's surface is formed.
g. Describe soil as consisting of weathered rocks and decomposed organic material.
Student Edition: pages 42, 43, 44, 45, 46, 47 **Teacher's Guide:** pages 12, 13 **Skills Workbook:** pages 11, 12

Earth Science
S6E5. Students will investigate the scientific view of how the earth's surface is formed.
h. Explain the effects of human activity on the erosion of the earth's surface.
Student Edition: pages 26, 27, 28, 29, 30, 31 **Teacher's Guide:** pages 11, 12

Earth Science
S6E5. Students will investigate the scientific view of how the earth's surface is formed.
i. Describe methods for conserving natural resources such as water, soil, and air.
Student Edition: pages 26, 27, 28, 29, 30, 31, 82, 83, 84, 85, 86, 87, 108, 109, 110, 111, 112, 113, 152, 153, 154, 155, 156, 157 **Teacher's Guide:** pages 11, 12, 36, 37, 46, 47, 62, 63 **Skills Workbook:** pages 10, 11, 35, 36, 45, 46, 61, 62

Earth Science
S6E6. Students will describe various sources of energy and with their uses and conservation.
a. Explain the role of the sun as the major source of energy and its relationship to wind and water energy.
Student Edition: pages 62, 63, 64, 65, 192, 193, 194, 195 **Teacher's Guide:** pages 18, 19, 78, 79 **Skills Workbook:** pages 17, 18, 77, 78

Earth Science
S6E6. Students will describe various sources of energy and with their uses and conservation.
b. Identify renewable and nonrenewable resources.
Student Edition: pages 26, 27, 28, 29, 30, 31, 152, 153, 154, 155, 156, 157 **Teacher's Guide:** pages 12, 13, 62, 63 **Skills Workbook:** pages 11, 12, 61, 62