SRA Skills Handbook: Using Science
correlation to
Alabama Course of Study: Science
Grade 3

PHYSICAL SCIENCE
Properties and Changes in Matter
Students will:
1. Classify substances as soluble and insoluble.
This concept is not covered at this level.

PHYSICAL SCIENCE
Properties and Changes in Matter
Students will:
2. Identify physical and chemical changes of matter.
Student Book: pages 136, 137, 138, 139 **Teacher's Guide:** pages 56, 57 **Skills Workbook:** pages 55, 56, 73, 74

PHYSICAL SCIENCE
Energy
Students will:
3. Describe ways energy from the sun is used. • **Identifying fossil fuels as a source of energy.**
Skills Workbook: pages 75, 76

PHYSICAL SCIENCE
Forces and Motion
Students will:
4. Define force and motion. • **Comparing the force of stationary objects to the force of objects in motion.**
Student Edition: pages 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 64, 65, 66, 67, 96, 97, 98, 99, 118, 119, 120, 121, 146, 147, 148, 149, 150, 151, 174, 175, 176, 177 **Teacher's Guide:** pages 10, 11, 12, 13, 26, 27, 40, 41, 48, 49, 60, 61, 70, 71 **Skills Workbook:** pages 9, 10, 11, 12, 25, 26, 39, 40, 47, 48, 59, 60, 69, 70

PHYSICAL SCIENCE
Forces and Motion
Students will:
4. Define force and motion. • **Identifying reasons for changes in motion, including the application of unequal forces.**
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

PHYSICAL SCIENCE
Forces and Motion
Students will:
4. Define force and motion. • **Identifying sources of friction.**
This concept is not covered at this level.

PHYSICAL SCIENCE
Forces and Motion
Students will:
5. Identify the relationship of simple machines to compound machines.
Student Edition: pages 96, 97, 98, 99, 118, 119, 120, 121 **Teacher's Guide:** pages 40, 41, 48, 49 **Skills Workbook:** pages 39, 40, 47, 48

LIFE SCIENCE
Structure, Function, Adaptation, and Reproduction of Living Systems
Students will:
6. Describe the life cycle of plants, including seed, germination, growth, and reproduction. • **Describing the role of plants in a food chain.**
Student Edition: pages 128, 129, 130, 131 **Teacher's Guide:** pages 52, 53 **Skills Workbook:** pages 51, 52

LIFE SCIENCE
Structure, Function, Adaptation, and Reproduction of Living Systems
Students will:
6. Describe the life cycle of plants, including seed, germination, growth, and reproduction. • **Identifying plant and animal cells.**
This concept is not covered at this level.

LIFE SCIENCE
Structure, Function, Adaptation, and Reproduction of Living Systems
Students will:
6. Describe the life cycle of plants, including seed, germination, growth, and reproduction. • **Naming kingdoms of living organisms, including, Animalia, Plantae, Monera, Protista, and Fungi.**
This concept is not covered at this level.

LIFE SCIENCE
Structure, Function, Adaptation, and Reproduction of Living Systems
Students will:
6. Describe the life cycle of plants, including seed, germination, growth, and reproduction. • **Describing how plants use space, light, nutrients, water and air.**
Student Edition: pages 78, 79, 80, 81 **Teacher's Guide:** pages 32, 33 **Skills Workbook:** pages 31, 32

LIFE SCIENCE
Structure, Function, Adaptation, and Reproduction of Living Systems
Students will:
6. Describe the life cycle of plants, including seed, germination, growth, and reproduction. • **Relating plant forms to function, including leaf, stem, root, and flower.**
This concept is not covered at this level.

LIFE SCIENCE
Structure, Function, Adaptation, and Reproduction of Living Systems
Students will:
6. Describe the life cycle of plants, including seed, germination, growth, and reproduction. • **Classifying plants according to their features.**
This concept is not covered at this level.

LIFE SCIENCE
Structure, Function, Adaptation, and Reproduction of Living Systems
Students will:
6. Describe the life cycle of plants, including seed, germination, growth, and reproduction. • **Identifying helpful and harmful effects of plants.**
Student Edition: pages 140, 141, 142, 143, 144, 145 **Teacher's Guide:** pages 58, 59 **Skills Workbook:** pages 57, 58

LIFE SCIENCE
Structure, Function, Adaptation, and Reproduction of Living Systems
Students will:
6. Describe the life cycle of plants, including seed, germination, growth, and reproduction. • **Identify how bees pollinate flowers.**
Student Book: pages 128, 129, 130, 131 **Teacher's Guide:** pages 52, 53 **Skills Workbook:** pages 51, 52

LIFE SCIENCE
Structure, Function, Adaptation, and Reproduction of Living Systems
Students will:
6. Describe the life cycle of plants, including seed, germination, growth, and reproduction. • **Describing ways plants produce food.**
Skills Workbook: pages 31, 32

LIFE SCIENCE
Structure, Function, Adaptation, and Reproduction of Living Systems
Students will:
7. Determine how fossils provide evidence of prehistoric plant life.
Student Book: pages 188, 189, 190, 191 **Teacher's Guide:** pages 76, 77 **Skills Workbook:** pages 53, 54, 75, 76

LIFE SCIENCE
Organisms and Environments
Students will:
8. Determine the effect of environmental conditions of a particular habitat on plant growth and survival.
Student Book: pages 52, 53 **Teacher's Guide:** pages 188, 189, 190, 191 **Skills Workbook:** pages 51, 52

EARTH and SPACE SCIENCE
Dynamic Earth
Students will:
9. Describe the layers of Earth, including inner and outer cores, mantle, and crust. • **Classifying rocks and minerals by characteristics, including streak, color, hardness, magnetism, luster, and texture.**
Student Edition: pages 188, 189, 190, 191 **Teacher's Guide:** pages 76, 77 **Skills Workbook:** pages 75, 76

EARTH and SPACE SCIENCE
Dynamic Earth
Students will:
9. Describe the layers of Earth, including inner and outer cores, mantle, and crust. • **Describing gravity as a force that pulls objects toward Earth's core.**
Student Edition: pages 28, 29, 30, 31 **Teacher's Guide:** pages 12, 13 **Skills Workbook:** pages 11, 12

EARTH and SPACE SCIENCE
Dynamic Earth
Students will:
9. Describe the layers of Earth, including inner and outer cores, mantle, and crust. • **Locating lines of latitude and longitude on a globe.**
This concept is not covered at this level.

EARTH and SPACE SCIENCE
Dynamic Earth
Students will:
10. Describe the water cycle, including evaporation, condensation, and precipitation. • **Identifying cloud types associated with specific weather patterns.**
Student Edition: pages 18, 19, 20, 21

EARTH and SPACE SCIENCE
Dynamic Earth
Students will:
11. Identify regional weather patterns. • **Identifying positive and negative effects of weather patterns.**
Student Edition: pages 18, 19, 20, 21, 106, 107, 108, 109, 110, 111 **Teacher's Guide:** pages 8, 9, 44, 45 **Skills Workbook:** pages 7, 8, 43, 44

EARTH and SPACE SCIENCE
Dynamic Earth
Students will:
11. Identify regional weather patterns. • **Identifying technology used to record and predict weather, including thermometers, barometers, rain gauges, anemometers, satellites, and the Internet.**
Student Book: pages 106, 107, 108, 109, 110, 111 **Teacher's Guide:** pages 44, 45 **Skills Workbook:** pages 43, 44

EARTH and SPACE SCIENCE
Dynamic Earth
Students will:
11. Identify regional weather patterns. • **Explaining symbols shown on a weather map.**
This concept is not covered at this level.

EARTH and SPACE SCIENCE
Dynamic Earth
Students will:
11. Identify regional weather patterns. • **Identifying conditions that result in weather phenomena, including thunderstorms, tornadoes, and hurricanes.**
Student Book: pages 106, 107, 108, 109, 110, 111 **Teacher's Guide:** pages 44, 45

EARTH and SPACE SCIENCE
Dynamic Earth
Students will:
12. Describe ways to sustain and utilize natural resources, including recycling, reusing, conserving, and protecting the environment.
Student Edition: pages 136, 137, 138, 139, 170, 171, 172, 173 **Teacher's Guide:** pages 56, 57, 68, 69 **Skills Workbook:** pages 55, 56, 67, 68

EARTH and SPACE SCIENCE
Earth in Space
Students will:
13. Describe the position of the Earth, moon, and sun during the course of a day or month. • **Describing various forms of technology used in space exploration.**
This concept is not covered at this level.

EARTH and SPACE SCIENCE
Earth in Space
Students will:
13. Describe the position of the Earth, moon, and sun during the course of a day or month. • **Describing how the position of the Earth, moon, and sun cause the phases of the moon.**
Student Edition: pages 42, 43, 44, 45, 46, 47 **Teacher's Guide:** pages 18, 19 **Skills Workbook:** pages 17, 18

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Grade 4

PHYSICAL SCIENCE
Energy
Students will:
1. Describe how electric circuits can be used to produce light, heat, sounds, work, and magnetic effects. • **Identifying ways to use and conserve electrical energy.**
Student Edition: pages 108, 109, 110, 111, 112, 113, 194, 195, 196, 197 **Teacher's Guide:** pages 46, 47, 78, 79 **Skills Workbook:** pages 45, 46, 77, 78

PHYSICAL SCIENCE
Energy
Students will:
1. Describe how electric circuits can be used to produce light, heat, sounds, work, and magnetic effects. • **Identifying characteristics of parallel and series circuits.**
Skills Workbook: pages 77, 78

PHYSICAL SCIENCE
Energy
Students will:
1. Describe how electric circuits can be used to produce light, heat, sounds, work, and magnetic effects. • **Identifying conductors, nonconductors, and insulators of electricity and heat.**
This concept is not covered at this level.

PHYSICAL SCIENCE
Energy
Students will:
1. Describe how electric circuits can be used to produce light, heat, sounds, work, and magnetic effects. • **Identifying the relationships among charge, current, and potential energy.**
This concept is not covered at this level.

PHYSICAL SCIENCE
Energy
Students will:
1. Describe how electric circuits can be used to produce light, heat, sounds, work, and magnetic effects. • **Identifying components of a circuit.**
This concept is not covered at this level.

PHYSICAL SCIENCE
Energy
Students will:
2. Describe production, transmission, and characteristics of sound waves. • **Identifying varying sound vibrations, including high, low, loud, or soft.**
This concept is not covered at this level.

PHYSICAL SCIENCE
Energy
Students will:
2. Describe production, transmission, and characteristics of sound waves. • **Describing how sound travels through solids, liquids, and gases.**
This concept is not covered at this level.

PHYSICAL SCIENCE
Energy
Students will:
2. Describe production, transmission, and characteristics of sound waves. • **Describing the relationship between the ear and sound.**
This concept is not covered at this level.

PHYSICAL SCIENCE
Energy
Students will:
3. Recognize how light is reflected or transmitted through opaque, transparent, and translucent materials.
Student Book: pages 148, 149, 150, 151, 152, 153, 194, 195, 196, 197 **Teacher's Guide:** pages 60, 61, 78, 79

PHYSICAL SCIENCE
Forces and Motion
Students will:
4. Compare effects of gravitational force on Earth, on the moon, and within space. • **Describing how a spring scale is used to measure weight.**
This concept is not covered at this level.

PHYSICAL SCIENCE
Forces and Motion
Students will:
4. Compare effects of gravitational force on Earth, on the moon, and within space. • **Explaining Newton's law of gravity.**
This concept is not covered at this level.

PHYSICAL SCIENCE
Forces and Motion
Students will:
4. Compare effects of gravitational force on Earth, on the moon, and within space. • **Explaining how air resistance affects falling objects.**
This concept is not covered at this level.

PHYSICAL SCIENCE
Forces and Motion
Students will:
5. Describe effects of friction on moving objects. • **Identifying momentum and inertia.**
This concept is not covered at this level.

PHYSICAL SCIENCE
Forces and Motion
Students will:
5. Describe effects of friction on moving objects. • **Identifying uses of and ways to reduce friction.**
This concept is not covered at this level.

LIFE SCIENCE
Structure, Function, Adaptation, and Reproduction of Living Systems
Students will:
6. Identify how organisms grow, develop, reproduce, obtain and use energy, and respond to the environment. • **Identifying viruses as nonliving things.**
This concept is not covered at this level.

LIFE SCIENCE
Structure, Function, Adaptation, and Reproduction of Living Systems
Students will:
6. Identify how organisms grow, develop, reproduce, obtain and use energy, and respond to the environment. • **Identifying individual variations within the same species.**
This concept is not covered at this level.

LIFE SCIENCE
Structure, Function, Adaptation, and Reproduction of Living Systems
Students will:
7. Describe the interdependence of plants and animals within a food chain, including producers, consumers, decomposers, herbivores, carnivores, omnivores, scavengers, predators, and prey. • **Describing behaviors and body structures that help animals survive in particular habitats, including mimicry and camouflage.**
Student Book: pages 100, 101, 102, 103, 184, 185, 186, 187, 188, 189 **Teacher's Guide:** pages 42, 43, 74, 75 **Skills Workbook:** pages 41, 42, 73, 74

LIFE SCIENCE
Structure, Function, Adaptation, and Reproduction of Living Systems
Students will:
7. Describe the interdependence of plants and animals within a food chain, including producers, consumers, decomposers, herbivores, carnivores, omnivores, scavengers, predators, and prey. • **Describing life cycles of various animals to include incomplete and complete metamorphosis.**
Student Book: pages 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 184, 185, 186, 187 **Teacher's Guide:** pages 12, 13, 14, 15, 74, 75 **Skills Workbook:** pages 11, 12, 13, 14, 73, 74

LIFE SCIENCE
Structure, Function, Adaptation, and Reproduction of Living Systems
Students will:
7. Describe the interdependence of plants and animals within a food chain, including producers, consumers, decomposers, herbivores, carnivores, omnivores, scavengers, predators, and prey. • **Identifying the flow of energy through the food chain.**
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
Diversity and Adaptation
Students will:
8. Classify animals into groups according to specific characteristics, including vertebrates or invertebrates, endotherms or ectotherms, and methods of locomotion. • **Describing the organization of organisms, including cells, tissues, organs, organ systems, organisms, population, community, and ecosystem.**
Student Book: pages 42, 43, 44, 45, 46, 47, 68, 69, 70, 71, 198, 199, 200, 201 **Teacher's Guide:** pages 18, 19, 28, 29, 80, 81 **Skills Workbook:** pages 27, 28

LIFE SCIENCE
Diversity and Adaptation
Students will:
8. Classify animals into groups according to specific characteristics, including vertebrates or invertebrates, endotherms or ectotherms, and methods of locomotion. • **Classifying organisms into kingdoms, including Animalia, Plantae, Monera, Protista, and Fungi.**
Student Edition: pages 184, 185, 186, 187, 188, 189 **Teacher's Guide:** pages 74, 75 **Skills Workbook:** pages 73, 74

EARTH and SPACE SCIENCE
Dynamic Earth
Students will:
9. Describe geological features of Earth, including valleys, mountains, bodies of water, beaches, ocean ridges, continental shelf, plateaus, plains, faults, canyons, sand dunes, and ice caps.
Student Book: pages 120, 121, 122, 123, 124, 125, 136, 137, 138, 139, 140, 141, 198, 199, 200, 201 **Teacher's Guide:** pages 50, 51, 56, 57, 80, 81 **Skills Workbook:** pages 79, 80

EARTH and SPACE SCIENCE
Space Technology
Students will:
10. Identify technological advances and other benefits of space exploration. • **Listing highlights of space exploration, including satellites, manned moon missions, the unmanned Mars mission, and an inhabited space station.**
Student Edition: pages 162, 163, 164, 165, 210, 211 **Teacher's Guide:** pages 64, 65 **Skills Workbook:** pages 63, 64

EARTH and SPACE SCIENCE
Earth in Space
Students will:
11. Describe the appearance and movement of the planets, sun, moons, asteroids, comets, and meteors within the solar system. • **Identifying waxing and waning of the moon in the night sky.**
This concept is not covered at this level.

EARTH and SPACE SCIENCE
Earth in Space
Students will:
11. Describe the appearance and movement of the planets, sun, moons, asteroids, comets, and meteors within the solar system. • **Identifying lunar and solar eclipses.**
This concept is not covered at this level.

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PHYSICAL SCIENCE
Matter
Students will:
1. Identify evidence of chemical changes through color, gas formation, solid formation, and temperature change.
This concept is not covered at this level.

PHYSICAL SCIENCE
Matter
Students will:
2. Define properties of mass, volume, and density.
Student Edition: pages 10, 11, 12, 13, 22, 23, 24, 25 **Teacher's Guide:** pages 4, 5, 10, 11 **Skills Workbook:** pages 3, 4, 9, 10

PHYSICAL SCIENCE
Matter
Students will:
3. Identify the pH factor of acids and bases. • **Using everyday indicators to identify common acids and bases.**
Student Edition: pages 32, 33, 34, 35, 36, 37, 206, 207 **Teacher's Guide:** pages 14, 15 **Skills Workbook:** pages 13, 14

PHYSICAL SCIENCE
Energy
Students will:
4. Describe forms of energy, including chemical, heat, light, and mechanical. • **Identifying forms of potential and kinetic energy.**
This concept is not covered at this level.

PHYSICAL SCIENCE
Energy
Students will:
4. Describe forms of energy, including chemical, heat, light, and mechanical. • **Describing alternatives to the use of fossil fuels.**
Student Edition: pages 106, 107, 108, 109 **Teacher's Guide:** pages 44, 45 **Skills Workbook:** pages 43, 44

PHYSICAL SCIENCE
Energy
Students will:
4. Describe forms of energy, including chemical, heat, light, and mechanical. • **Identifying the transfer of energy by conduction, convection, and radiation.**
Student Edition: pages 80, 81, 82, 83, 84, 85 **Teacher's Guide:** pages 34, 35

PHYSICAL SCIENCE
Force and Motion
Students will:
5. Contrast ways in which light rays are bent by concave and convex lenses. • **Describing how a prism forms a visible spectrum.**
This concept is not covered at this level.

PHYSICAL SCIENCE
Force and Motion
Students will:
5. Contrast ways in which light rays are bent by concave and convex lenses. • **Explaining why different objects have different colors.**
This concept is not covered at this level.

PHYSICAL SCIENCE
Force and Motion
Students will:
5. Contrast ways in which light rays are bent by concave and convex lenses. • **Describing how mirrors reflect light.**
This concept is not covered at this level.

PHYSICAL SCIENCE
Force and Motion
Students will:
5. Contrast ways in which light rays are bent by concave and convex lenses. • **Identifying types of corrective lenses used to correct different sight problems.**
This concept is not covered at this level.

LIFE SCIENCE
Structure and Function of Organisms
Students will:
6. Identify common parts of plant and animal cells, including the nucleus, cytoplasm, and cell membrane. • **Comparing unicellular and multicellular organisms.**
This concept is not covered at this level.

LIFE SCIENCE
Structure and Function of Organisms
Students will:
6. Identify common parts of plant and animal cells, including the nucleus, cytoplasm, and cell membrane. • **Identifying two major differences in plant and animal cells.**
This concept is not covered at this level.

LIFE SCIENCE
Structure and Function of Organisms
Students will:
7. Identify functions of human body systems, including the skeletal, digestive, muscular, respiratory, circulatory, excretory, and reproductive systems. • **Identifying cells, tissues, and organs of the respiratory and circulatory systems.**
Student Edition: pages 188, 189, 190, 191, 192, 193 **Teacher's Guide:** pages 76, 77 **Skills Workbook:** pages 75, 76

LIFE SCIENCE
Organisms and Environments
Students will:
8. Describe the relationship of populations within a habitat to various communities, ecosystems, and biomes, including competition, symbiosis, mutualism, commensalisms, and parasitism. • **Identifying biotic and abiotic components of an ecosystem.**
Student Book: pages 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 62, 63, 64, 65, 76, 77, 78, 79, 110, 111, 112, 113, 114, 115, 174, 175, 176, 177 **Teacher's Guide:** pages 14, 15, 16, 17, 26, 27, 32, 33, 46, 47, 70, 71 **Skills Workbook:** pages 13, 14, 15, 16, 25, 26, 31, 32, 45, 46, 69, 70

LIFE SCIENCE
Organisms and Environments
Students will:
8. Describe the relationship of populations within a habitat to various communities, ecosystems, and biomes, including competition, symbiosis, mutualism, commensalisms, and parasitism. • **Tracing energy transfer in food chains and food webs, including terrestrial and aquatic organisms.**
Student Book: pages 174, 175, 176, 177 **Teacher's Guide:** pages 70, 71

EARTH and SPACE SCIENCE
Dynamic Earth
Students will:
9. Identify spheres of Earth, including geosphere, atmosphere, and hydrosphere. • **Describing technology used to investigate Earth.**
Student Edition: pages 166, 167, 168, 169 **Teacher's Guide:** pages 66, 67 **Skills Workbook:** pages 65, 66

EARTH and SPACE SCIENCE
Dynamic Earth
Students will:
9. Identify spheres of Earth, including geosphere, atmosphere, and hydrosphere. • **Describing the rock cycle.**
This concept is not covered at this level.

EARTH and SPACE SCIENCE
Earth in Space
Students will:
10. Describe components of the universe. • **Identifying constellations.**
Student Edition: pages 50, 51, 52, 53, 102, 103, 104, 105 **Teacher's Guide:** pages 20, 21, 42, 43 **Skills Workbook:** pages 19, 20, 41, 42

EARTH and SPACE SCIENCE
Earth in Space
Students will:
10. Describe components of the universe. • **Comparing the relative size and distance of Earth to other planets.**
Skills Workbook: pages 41, 42

EARTH and SPACE SCIENCE
Earth in Space
Students will:
10. Describe components of the universe. • **Identifying technology used to study the universe.**
Student Edition: pages 148, 149, 150, 151, 152, 153, 182, 183, 184, 185, 186, 187, 188, 189 **Teacher's Guide:** pages 60, 61, 74, 75 **Skills Workbook:** pages 73, 74, 83, 84