SRA Life, Earth, and Physical Science Laboratories
correlation to
Colorado Model Content Standards
Grades 6-8

SRA Life, Earth, and Physical Science Laboratories provide core science content in an alternate reading format. Each *SRA Science Lab* contains 180 Science Cards covering key science concepts and vocabulary. Each lab covers 90 different science topics presented at two different reading levels to meet varied student abilities. The *Teacher's Handbook* includes hands-on inquiry activities as well as vocabulary building exercises. The *Classroom Resource CD-ROM* includes Writing Strategies in Science along with tests and vocabulary games.

Standard 1: Students apply the processes of scientific investigation and design, conduct, communicate about, and evaluate such investigations.
1. ask questions and make hypotheses that lead to different types of scientific investigations (for example: experimentation, collecting specimens, constructing models, researching scientific literature).
Life Science Lab Teacher's Handbook: Hands-On Activity 1, *Examining Cells,* pages 77-79; Hands-On Activity 2, *Culturing Bacteria,* pages 81-83; Hands-On Activity 3, *Investigating Arthropods,* pages 85-87; Hands-On Activity 4, *Your Cardiovascular System,* pages 89-91; Hands-On Activity 5, *Making Fossils,* pages 93-95; Hands-On Activity 6, *How Much Does Energy Cost?,* pages 97-99; Hands-On Activity 7, *The Effects of Acid Rain,* pages 101-103 **Earth Science Lab Teacher's Handbook:** Hands-On Activity 1, *Identifying Minerals with the Mohs Scale,* pages 73-75; Hands-On Activity 2, *Plate Boundaries in Action,* pages 77-79; Hands-On Activity 3, *Interpreting a Topographic Map,* pages 81-83; Hands-On Activity 4, *Using Sound Waves,* pages 85-87; Hands-On Activity 5, *What is in the Air?,* pages 89-91; Hands-On Activity 6, *Modeling a Tornado,* pages 93-95; Hands-On Activity 7, *Sizes in the Solar System,* pages 97-99; Hands-On Activity 8, *Temperature, Salinity, and Water Density,* pages 101-103 **Physical Science Lab Teacher's Handbook:** Hands-On Activity 1, *Measuring pH of Acids and Bases,* pages 77-79; Hands-On Activity 2, *Chemical Reaction Rates,* pages 81-83; Hands-On Activity 3, *Energy Conversion,* pages 85-87; Hands-On Activity 4, *Reducing Friction,* pages 89-91; Hands-On Activity 5, *Making a Potato Battery,* pages 93-95; Hands-On Activity 6, *Making Sound,* pages 97-99 **Classroom Resource CD-ROM:** Writing Strategy 8, 15

Standard 1: Students apply the processes of scientific investigation and design, conduct, communicate about, and evaluate such investigations.
2. use appropriate tools, technologies, and metric measurements to gather and organize data and report results.
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Standard 1: Students apply the processes of scientific investigation and design, conduct, communicate about, and evaluate such investigations.

3. interpret and evaluate data in order to formulate logical conclusions.

Life Science Lab Teacher's Handbook: Hands-On Activity 3, *Investigating Arthropods,* pages 85-87; Hands-On Activity 4, *Your Cardiovascular System,* pages 89-91; Hands-On Activity 5, *Making Fossils,* pages 93-95; Hands-On Activity 6, *How Much Does Energy Cost?,* pages 97-99; Hands-On Activity 7, *The Effects of Acid Rain*, pages 101-103

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Classroom Resource CD-ROM: Writing Strategy 22, 24

Standard 1: Students apply the processes of scientific investigation and design, conduct, communicate about, and evaluate such investigations.

4. demonstrate that scientific ideas are used to explain previous observations and to predict future events (for example: plate tectonics and future earthquake activity).

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Standard 1: Students apply the processes of scientific investigation and design, conduct, communicate about, and evaluate such investigations.

5. identify and evaluate alternative explanations and procedures.

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Standard 1: Students apply the processes of scientific investigation and design, conduct, communicate about, and evaluate such investigations.
6. communicate results of their investigations in appropriate ways (for example: written reports, graphic displays, oral presentations).
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Standard 2: Physical Science: Students know and understand common properties, forms, and changes in matter and energy.
1. physical properties of solids, liquids, gases and the plasma state and their changes can be explained using the particle nature of matter model.
Physical Science Lab, Level A: Cards 5, 6, 7, 8, 12, 13, 42 **Physical Science Lab, Level B:** Cards 5, 6, 7, 8, 12, 13, 42

Standard 2: Physical Science: Students know and understand common properties, forms, and changes in matter and energy.
2. mixtures of substances can be separated based on their properties (for example: solubilities, boiling points, magnetic properties, densities and specific heat).
Physical Science Lab, Level A: Cards 12, 13 **Physical Science Lab, Level B:** Cards 12, 13

Standard 2: Physical Science: Students know and understand common properties, forms, and changes in matter and energy.
3. mass is conserved in a chemical or physical change.
Physical Science Lab, Level A: Cards 9, 27, 28, 29, 30 **Physical Science Lab, Level B:** Cards 9, 27, 28, 29, 30 **Physical Science Lab Teacher's Handbook:** Hands-On Activity 2, *Chemical Reaction Rates,* pages 81-83

Standard 2: Physical Science: Students know and understand common properties, forms, and changes in matter and energy.
4. mass and weight can be distinguished.
Physical Science Lab, Level A: Cards 2, 57 **Physical Science Lab, Level B:** Cards 2, 57

Standard 2: Physical Science: Students know and understand common properties, forms, and changes in matter and energy.
5. all matter is made up of atoms that are comprised of protons, neutrons and electrons and when a substance is made up of only one type of atom it is an element.
Physical Science Lab, Level A: Cards 3, 4, 10, 21 **Physical Science Lab, Level B:** Cards 3, 4, 10, 21

Standard 2: Physical Science: Students know and understand common properties, forms, and changes in matter and energy.
6. when two or more elements are combined a compound is formed which is made up of molecules.
Physical Science Lab, Level A: Cards 4, 9, 11, 27, 28, 29, 30, 31, 32 **Physical Science Lab, Level B:** Cards 4, 9, 11, 27, 28, 29, 30, 31, 32 **Physical Science Lab Teacher's Handbook:** Hands-On Activity 2, *Chemical Reaction Rates,* pages 81-83

Standard 2: Physical Science: Students know and understand common properties, forms, and changes in matter and energy.
7. quantities (for example: time, distance, mass, force) that characterize moving objects and their interactions within a system (for example, force, speed, velocity, potential energy, kinetic energy) can be described, measured and calculated.
Physical Science Lab, Level A: Cards 36, 37, 39, 40, 41, 42, 50, 51, 52, 54, 62, 65 **Physical Science Lab, Level B:** Cards 36, 37, 39, 40, 41, 42, 50, 51, 52, 54, 62, 65 **Physical Science Lab Teacher's Handbook:** Hands-On Activity 3, *Energy Conversion*, pages 85-87

Standard 2: Physical Science: Students know and understand common properties, forms, and changes in matter and energy.
8. that there are different forms of energy and those forms of energy can be transferred and stored (for example: kinetic, potential) but total energy is conserved.
Physical Science Lab, Level A: Cards 34, 36, 37, 38, 39, 40, 41, 42, 45, 46, 47, 48, 49, 66, 67, 76, 77, 78, 82, 83 **Physical Science Lab, Level B:** Cards 34, 36, 37, 38, 39, 40, 41, 42, 45, 46, 47, 48, 49, 66, 67, 76, 77, 78, 82, 83 **Physical Science Lab Teacher's Handbook:** Hands-On Activity 3, *Energy Conversion*, pages 85-87; Hands-On Activity 6, *Making Sound*, pages 97-99

Standard 2: Physical Science: Students know and understand common properties, forms, and changes in matter and energy.
9. electric circuits provide a means of transferring electrical energy when heat, light, sound, magnetic effects and chemical changes are produced.
Physical Science Lab, Level A: Cards 68, 69, 70, 72, 73 **Physical Science Lab, Level B:** Cards 68, 69, 70, 72, 73

Standard 2: Physical Science: Students know and understand common properties, forms, and changes in matter and energy.
10. white light is made up of different colors that correspond to different wavelengths.
Physical Science Lab, Level A: Cards 82, 85 **Physical Science Lab, Level B:** Cards 82, 85

Standard 3: Life Science: Students know and understand the characteristics and structures of living things, the processes of life, and how living things interact with each other and their environment.
1. classification schemes can be used to understand the structure of organisms.
Life Science Lab, Level A: Cards 2, 3, 11, 12, 13, 14, 15, 16, 18, 19, 20, 21, 22, 25, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40 **Life Science Lab, Level B:** Cards 2, 3, 11, 12, 13, 14, 15, 16, 18, 19, 20, 21, 22, 25, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40 **Life Science Lab Teacher's Handbook:** Hands-On Activity 2, *Culturing Bacteria*, pages 81-83; Hands-On Activity 3, *Investigating Arthropods*, pages 85-87

Standard 3: Life Science: Students know and understand the characteristics and structures of living things, the processes of life, and how living things interact with each other and their environment.
2. human body systems have specific functions and interaction (for example: circulatory and respiratory, muscular and skeletal).
Life Science Lab, Level A: Cards 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58 **Life Science Lab, Level B:** Cards 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58 **Life Science Lab Teacher's Handbook:** Hands-On Activity 4, *Your Cardiovascular System*, pages 89-91

Standard 3: Life Science: Students know and understand the characteristics and structures of living things, the processes of life, and how living things interact with each other and their environment.
3. there is a differentiation among levels of organization (cells, tissues, and organs) and their roles within the whole organism.
Life Science Lab, Level A: Cards 5, 6, 7, 8, 9, 10, 44, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58 **Life Science Lab, Level B:** Cards 5, 6, 7, 8, 9, 10, 44, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58 **Life Science Lab Teacher's Handbook:** Hands-On Activity 1, *Examining Cells*, pages 77-79; Hands-On Activity 4, *Your Cardiovascular System*, pages 89-91

Standard 3: Life Science: Students know and understand the characteristics and structures of living things, the processes of life, and how living things interact with each other and their environment.
4. multicellular organisms have a variety of ways to get food and other matter to their cells (for example: digestion, transport of nutrients by circulatory system).
Life Science Lab, Level A: Cards 8, 9, 11, 12, 16, 18, 19, 20, 27, 29, 30, 47, 50 **Life Science Lab, Level B:** Cards 8, 9, 11, 12, 16, 18, 19, 20, 27, 29, 30, 47, 50

Standard 3: Life Science: Students know and understand the characteristics and structures of living things, the processes of life, and how living things interact with each other and their environment.
5. photosynthesis and cellular respiration are basic processes of life (for example: set up a terrarium or aquarium and make changes such as blocking out light).
Life Science Lab, Level A: Cards 7, 9, 16, 17 **Life Science Lab, Level B:** Cards 7, 9, 16, 17

Standard 3: Life Science: Students know and understand the characteristics and structures of living things, the processes of life, and how living things interact with each other and their environment.
6. different types of cells have basic structures, components, and functions (for examples: cell membrane, nucleus, cytoplasm, chloroplast, single-celled organisms in pond water, Elodea, onion cell, human cheek cell).
Life Science Lab, Level A: Cards 5, 6, 7, 8, 9, 10 **Life Science Lab, Level B:** Cards 5, 6, 7, 8, 9, 10 **Life Science Lab Teacher's Handbook:** Hands-On Activity 1, *Examining Cells*, pages 77-79

Standard 3: Life Science: Students know and understand the characteristics and structures of living things, the processes of life, and how living things interact with each other and their environment.
7. there are noncommunicable conditions and communicable diseases (for example: heart disease and chicken pox).
Life Science Lab, Level A: Cards 11, 12, 13, 47, 49, 51, 53, 55, 57 **Life Science Lab, Level B:** Cards 11, 12, 13, 47, 49, 51, 53, 55, 57

Standard 3: Life Science: Students know and understand the characteristics and structures of living things, the processes of life, and how living things interact with each other and their environment.
8. there is a flow of energy and matter in an ecosystem (for example: as modeled in a food chain, web, pyramid, decomposition).
Life Science Lab, Level A: Cards 113, 74, 75, 76, 77 **Life Science Lab, Level B:** Cards 13, 74, 75, 76, 77 **Life Science Lab Teacher's Handbook:** Hands-On Activity 6, *How Much Does Energy Cost?,* pages 97-99

Standard 3: Life Science: Students know and understand the characteristics and structures of living things, the processes of life, and how living things interact with each other and their environment.
9. asexual and sexual cell reproduction/division can be differentiated.
Life Science Lab, Level A: Cards 10, 60, 61 **Life Science Lab, Level B:** Cards 10, 60, 61

Standard 3: Life Science: Students know and understand the characteristics and structures of living things, the processes of life, and how living things interact with each other and their environment.
10. chromosomes and genes play a role in heredity (for example: genes control traits, while chromosomes are made up of many genes).
Life Science Lab, Level A: Cards 10, 62, 63, 64 **Life Science Lab, Level B:** Cards 10, 62, 63, 64

Standard 3: Life Science: Students know and understand the characteristics and structures of living things, the processes of life, and how living things interact with each other and their environment.
11. changes in environmental conditions can affect the survival of individual organisms, populations, and entire species.
Life Science Lab, Level A: Cards 65, 66, 67, 86, 87, 88, 89, 90 **Life Science Lab, Level B:** Cards 65, 66, 67, 86, 87, 88, 89, 90 **Life Science Lab Teacher's Handbook:** Hands-On Activity 7, *The Effects of Acid Rain,* pages 101-103

Standard 3: Life Science: Students know and understand the characteristics and structures of living things, the processes of life, and how living things interact with each other and their environment.
12. changes or constancy in groups of organisms over geologic time can be revealed through evidence.
Life Science Lab, Level A: Cards 66, 67, 68 **Life Science Lab, Level B:** Cards 66, 67, 68 **Life Science Lab Teacher's Handbook:** Hands-On Activity 5, *Making Fossils,* pages 93-95 **Earth Science Lab, Level A:** Cards 30, 31, 32, 33, 34 **Earth Science Lab, Level B:** Cards 30, 31, 32, 33, 34

Standard 3: Life Science: Students know and understand the characteristics and structures of living things, the processes of life, and how living things interact with each other and their environment.
13. individual organisms with certain traits are more likely than others to survive and have offspring.
Life Science Lab, Level A: Cards 65, 66, 67 **Life Science Lab, Level B:** Cards 65, 66, 67

Standard 4: Earth and Space Science: Students know and understand the processes and interactions of Earth's systems and the structure and dynamics of Earth and other objects in space.
1. inter-relationships exist between minerals, rocks, and soils.
Earth Science Lab, Level A: Cards 3, 4, 5, 6, 7, 8, 9, 23, 29 **Earth Science Lab, Level B:** Cards 3, 4, 5, 6, 7, 8, 9, 23, 29 **Earth Science Lab Teacher's Handbook:** Hands-On Activity 1, *Identifying Minerals with the Mohs Scale*, pages 73-75

Standard 4: Earth and Space Science: Students know and understand the processes and interactions of Earth's systems and the structure and dynamics of Earth and other objects in space.
2. humans use renewable and nonrenewable resources (for example: forests and fossil fuels).
Life Science Lab, Level A: Cards 84, 85, 87, 88, 89, 90 **Life Science Lab, Level B:** Cards 84, 85, 87, 88, 89, 90 **Earth Science Lab, Level A:** Cards 5, 6, 7, 8, 9, 23, 29, 35, 42, 59, 60, 61, 85, 86, 90 **Earth Science Lab, Level B:** Cards 5, 6, 7, 8, 9, 23, 29, 35, 42, 59, 60, 61, 85, 86, 90 **Physical Science Lab, Level A:** Cards 38, 46, 47, 48, 49 **Physical Science Lab, Level B:** Cards 38, 46, 47, 48, 49

Standard 4: Earth and Space Science: Students know and understand the processes and interactions of Earth's systems and the structure and dynamics of Earth and other objects in space.
3. natural processes shape the Earth's surface (for example: landslides, weathering, erosion, mountain building, volcanic activity).
Earth Science Lab, Level A: Cards 11, 12, 13, 14, 15, 16, 17, 21, 22, 24, 25, 26, 27, 28, 88 **Earth Science Lab, Level B:** Cards 11, 12, 13, 14, 15, 16, 17, 21, 22, 24, 25, 26, 27, 28, 88 **Earth Science Lab Teacher's Handbook:** Hands-On Activity 2, *Plate Boundaries in Action*, pages 77-79

Standard 4: Earth and Space Science: Students know and understand the processes and interactions of Earth's systems and the structure and dynamics of Earth and other objects in space.
4. major geological events such as earthquakes, volcanic eruptions, and mountain building are associated with plate boundaries and attributed to plate motions.
Physical Science Lab, Level A: Cards 10, 11, 12, 13, 14, 15, 16, 17, 88 **Physical Science Lab, Level B:** Cards 10, 11, 12, 13, 14, 15, 16, 17, 88 **Physical Science Lab Teacher's Handbook:** Hands-On Activity 2, *Plate Boundaries in Action*, pages 77-79

Standard 4: Earth and Space Science: Students know and understand the processes and interactions of Earth's systems and the structure and dynamics of Earth and other objects in space.
5. fossils are formed and used as evidence to indicate that life has changed through time.
Life Science Lab, Level A: Card 67 **Life Science Lab, Level B:** Card 67 **Life Science Lab Teacher's Handbook:** Hands-On Activity 5, *Making Fossils*, pages 93-95 **Earth Science Lab, Level A:** Cards 33, 34 **Earth Science Lab, Level B:** Cards 33, 34

Standard 4: Earth and Space Science: Students know and understand the processes and interactions of Earth's systems and the structure and dynamics of Earth and other objects in space.
6. successive layers of sedimentary rock and the follies contained within them can be used to confirm age, geologic time, history, and changing life forms of the Earth; this evidence is affected by the folding, breaking and uplifting of layers.
Earth Science Lab, Level A: Cards 30, 31, 32, 33, 34 **Earth Science Lab, Level B:** Cards 30, 31, 32, 33, 34

Standard 4: Earth and Space Science: Students know and understand the processes and interactions of Earth's systems and the structure and dynamics of Earth and other objects in space.
7. the atmosphere has basic composition, properties, and structure (for example: the range and distribution of temperature and pressure in the troposphere and stratosphere).
Earth Science Lab, Level A: Cards 36, 37, 38, 39, 40, 41 **Earth Science Lab, Level B:** Cards 36, 37, 38, 39, 40, 41

Standard 4: Earth and Space Science: Students know and understand the processes and interactions of Earth's systems and the structure and dynamics of Earth and other objects in space.
8. atmospheric circulation is driven by solar heating (for example: the transfer of energy by radiation, convection, conduction).
Earth Science Lab, Level A: Cards 38, 39, 40, 41, 45, 46 **Earth Science Lab, Level B:** Cards 38, 39, 40, 41, 45, 46

Standard 4: Earth and Space Science: Students know and understand the processes and interactions of Earth's systems and the structure and dynamics of Earth and other objects in space.
9. there are quantitative changes in weather conditions over time and space (for example: humidity, temperature, air pressure, cloud cover, wind, precipitation).
Earth Science Lab, Level A: Cards 39, 40, 41, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54 **Earth Science Lab, Level B:** Cards 39, 40, 41, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54 **Earth Science Lab Teacher's Handbook:** Hands-On Activity 6, *Modeling a Tornado*, pages 93-95

Standard 4: Earth and Space Science: Students know and understand the processes and interactions of Earth's systems and the structure and dynamics of Earth and other objects in space.
10. there are large-scale and local weather systems (for example: fronts, air masses, storms).
Earth Science Lab, Level A: Cards 40, 41, 45, 46, 52, 53, 54, 56, 57 **Earth Science Lab, Level B:** Cards 40, 41, 45, 46, 52, 53, 54, 56, 57

Standard 4: Earth and Space Science: Students know and understand the processes and interactions of Earth's systems and the structure and dynamics of Earth and other objects in space.
11. the world's water is distributed and circulated through oceans, glaciers, rivers, groundwater, and atmosphere).
Earth Science Lab, Level A: Cards 47, 82, 83, 84, 87 **Earth Science Lab, Level B:** Cards 42, 82, 83, 84, 87 **Earth Science Lab Teacher's Handbook:** Hands-On Activity 8, *Temperature, Salinity, and Water Density*, pages 101-103

Standard 4: Earth and Space Science: Students know and understand the processes and interactions of Earth's systems and the structure and dynamics of Earth and other objects in space.
12. the ocean has a certain composition and physical characteristics (for example: currents, waves, features of the ocean floor, salinity, and tides).
Earth Science Lab, Level A: Cards 87, 88, 89, 90 **Earth Science Lab, Level B:** Cards 87, 88, 89, 90 **Earth Science Lab Teacher's Handbook:** Hands-On Activity 8, *Temperature, Salinity, and Water Density*, pages 101-103

Standard 4: Earth and Space Science: Students know and understand the processes and interactions of Earth's systems and the structure and dynamics of Earth and other objects in space.
13. there are characteristics (components, composition, size) and scientific theories of origin of the solar system.
Earth Science Lab, Level A: Cards 62, 63, 67, 68, 69, 70, 71, 72, 73, 78 **Earth Science Lab, Level B:** Cards 62, 63, 67, 68, 69, 70, 71, 72, 73, 78 **Earth Science Lab Teacher's Handbook:** Hands-On Activity 7, *Sizes in the Solar System*, pages 97-99

Standard 4: Earth and Space Science: Students know and understand the processes and interactions of Earth's systems and the structure and dynamics of Earth and other objects in space.
14. relative motion, axes tilt and positions of the Sun, Earth, and Moon have observable effects (for example: seasons, eclipses, moon phases).
Earth Science Lab, Level A: Cards 62, 64, 65, 66 **Earth Science Lab, Level B:** Cards 62, 64, 65, 66

Standard 4: Earth and Space Science: Students know and understand the processes and interactions of Earth's systems and the structure and dynamics of Earth and other objects in space.
15. the universe consists of many billions of galaxies (each containing many billions of stars) and that vast distances separate the galaxies and stars from one another and the Earth.
Earth Science Lab, Level A: Cards 74, 75, 76, 77, 78 **Earth Science Lab, Level B:** Cards 74, 75, 76, 77, 78

Standard 4: Earth and Space Science: Students know and understand the processes and interactions of Earth's systems and the structure and dynamics of Earth and other objects in space.
16. technology is needed to explore space (for example: telescopes, spectroscopes, spacecraft, life support systems).
Earth Science Lab, Level A: Cards 70, 79, 80, 81 **Earth Science Lab, Level B:** Cards 70, 79, 80, 81

Standard 5: Students understand that the nature of science involves a particular way of building knowledge and making meaning of the natural world.
1. a controlled experiment must have comparable results when repeated.
Life Science Lab Teacher's Handbook: Hands-On Activity 1, *Examining Cells,* pages 77-79; Hands-On Activity 2, *Culturing Bacteria,* pages 81-83; Hands-On Activity 3, *Investigating Arthropods,* pages 85-87; Hands-On Activity 4, *Your Cardiovascular System,* pages 89-91; Hands-On Activity 5, *Making Fossils,* pages 93-95; Hands-On Activity 6, *How Much Does Energy Cost?,* pages 97-99; Hands-On Activity 7, *The Effects of Acid Rain,* pages 101-103 **Earth Science Lab Teacher's Handbook:** Hands-On Activity 1, *Identifying Minerals with the Mohs Scale,* pages 73-75; Hands-On Activity 2, *Plate Boundaries in Action,* pages 77-79; Hands-On Activity 3, *Interpreting a Topographic Map,* pages 81-83; Hands-On Activity 4, *Using Sound Waves,* pages 85-87; Hands-On Activity 5, *What is in the Air?,* pages 89-91; Hands-On Activity 6, *Modeling a Tornado,* pages 93-95; Hands-On Activity 7, *Sizes in the Solar System,* pages 97-99; Hands-On Activity 8, *Temperature, Salinity, and Water Density,* pages 101-103 **Physical Science Lab Teacher's Handbook:** Hands-On Activity 1, *Measuring pH of Acids and Bases,* pages 77-79; Hands-On Activity 2, *Chemical Reaction Rates,* pages 81-83; Hands-On Activity 3, *Energy Conversion,* pages 85-87; Hands-On Activity 4, *Reducing Friction,* pages 89-91; Hands-On Activity 5, *Making a Potato Battery,* pages 93-95; Hands-On Activity 6, *Making Sound,* pages 97-99

Standard 5: Students understand that the nature of science involves a particular way of building knowledge and making meaning of the natural world.
2. scientific knowledge changes as new knowledge is acquired and previous ideas are modified (for example: through space exploration).
Life Science Lab, Level A: Cards 2, 5, 46, 49, 59, 64, 69, 83, 86, 87, 88, 89, 90 **Life Science Lab, Level B:** Cards 2, 5, 46, 49, 59, 64, 69, 83, 86, 87, 88, 89, 90 **Earth Science Lab, Level A:** Cards 10, 16, 20, 31, 37, 42, 51, 54, 59, 60, 61, 68, 70, 72, 78, 79, 80, 81, 88 **Earth Science Lab, Level B:** Cards 10, 16, 20, 31, 37, 42, 51, 54, 59, 60, 61, 68, 70, 72, 78, 79, 80, 81, 88 **Physical Science Lab, Level A:** Cards 3, 7, 17, 33, 34, 35, 49, 53, 59, 76, 81, 84, 90 **Physical Science Lab, Level B:** Cards 3, 7, 17, 33, 34, 35, 49, 53, 59, 76, 81, 84, 90

Standard 5: Students understand that the nature of science involves a particular way of building knowledge and making meaning of the natural world.
3. contributions to the advancement of science have been made by people in different cultures and at different times in history.
Life Science Lab, Level A: Cards 2, 5, 46, 59 **Life Science Lab, Level B:** Cards 2, 5, 46, 59 **Earth Science Lab, Level A:** Cards 10, 68, 72, 78 **Earth Science Lab, Level B:** Cards 10, 68, 72, 78 **Physical Science Lab, Level A:** Cards 3, 7, 55 **Physical Science Lab, Level B:** Cards 3, 7, 55

Standard 5: Students understand that the nature of science involves a particular way of building knowledge and making meaning of the natural world.
4. models can be used to predict change (for example: computer simulation, video sequence, stream stable).
Life Science Lab Teacher's Handbook: Hands-On Activity 4, *Your Cardiovascular System,* pages 89-91; Hands-On Activity 5, *Making Fossils,* pages 93-95; Hands-On Activity 6, *How Much Does Energy Cost?,* pages 97-99 **Earth Science Lab Teacher's Handbook:** Hands-On Activity 2, *Plate Boundaries in Action,* pages 77-79; Hands-On Activity 6, *Modeling a Tornado,* pages 93-95; Hands-On Activity 7, *Sizes in the Solar System,* pages 97-99 **Physical Science Lab Teacher's Handbook:** Hands-On Activity 5, *Making a Potato Battery,* pages 93-95; Hands-On Activity 6, *Making Sound,* pages 97-99 **Classroom Resource CD-ROM:** Writing Strategy 20

Standard 5: Students understand that the nature of science involves a particular way of building knowledge and making meaning of the natural world.
5. there are interrelationships among science, technology and human activity that affect the world.
Life Science Lab, Level A: Cards 5, 46, 49, 59, 64, 69, 83, 87, 88, 89, 90 **Life Science Lab, Level B:** Cards 5, 46, 49, 59, 64, 69, 83, 87, 88, 89, 90 **Earth Science Lab, Level A:** Cards 10, 16, 20, 31, 37, 42, 51, 54, 59, 60, 61, 68, 70, 72, 78, 79, 80, 81, 88 **Earth Science Lab, Level B:** Cards 10, 16, 20, 31, 37, 42, 51, 54, 59, 60, 61, 68, 70, 72, 78, 79, 80, 81, 88 **Physical Science Lab, Level A:** Cards 3, 7, 17, 33, 35, 53, 55, 59, 76, 81, 84, 90 **Physical Science Lab, Level B:** Cards 3, 7, 17, 33, 35, 53, 55, 59, 76, 81, 84, 90