SRA Life, Earth, and Physical Science Laboratories
correlation to
New York Science Core Curriculum
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 4: The Physical Setting
1. The Earth and celestial phenomena can be described by principles of relative motion and perspective.
Students explain daily, monthly, and seasonal changes on Earth.
Earth Science Lab, Level A: Cards 55, 58, 62, 64, 65, 66 **Earth Science Lab, Level B:** Cards 55, 58, 62, 64, 65, 66

Standard 4: The Physical Setting
2. Many of the phenomena that we observe on Earth involve interactions among components or air, water, and land.
Students explain how the atmosphere (air), hydrosphere (water), and lithosphere (land) interact, evolve, and change.
Earth Science Lab, Level A: Cards 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 21, 22, 23, 24, 25, 26, 27, 28, 32, 33, 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, 82, 83, 84, 85, 86, 87, 88, 89, 90 **Earth Science Lab, Level B:** Cards , 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 21, 22, 23, 24, 25, 26, 27, 28, 32, 33, 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, 82, 83, 84, 85, 86, 87, 88, 89, 90 **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 5, *What is in the Air?*, pages 89-91; Hands-On Activity 6, *Modeling a Tornado*, pages 93-95; Hands-On Activity 8, *Temperature, Salinity, and Water Density*, pages 101-103

Standard 4: The Physical Setting
2. Many of the phenomena that we observe on Earth involve interactions among components or air, water, and land.
Students describe volcano and earthquake patterns, the rock cycle, and weather and climate changes.
Earth Science Lab, Level A: Cards 9, 15, 16, 17, 38, 39, 40, 41, 43, 44, 45, 46, 47, 48, 49, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61 **Earth Science Lab, Level B:** Cards 9, 15, 16, 17, 38, 39, 40, 41, 43, 44, 45, 46, 47, 48, 49, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61 **Earth Science Lab Teacher's Handbook:** Hands-On Activity 6, *Modeling a Tornado*, pages 93-95

Standard 4: The Physical Setting
3. Matter is made up of particles whose properties determine the observable characteristics of matter and its reactivity.
Students observe and describe properties of materials, such as density, conductivity, and solubility.
Physical Science Lab, Level A: Cards 1, 2, 33, 66, 67, 68, 69, 74 **Physical Science Lab, Level B:** Cards 1, 2, 33, 66, 67, 68, 69, 74

Standard 4: The Physical Setting
3. Matter is made up of particles whose properties determine the observable characteristics of matter and its reactivity.
Students distinguish between chemical and physical changes.
Physical Science Lab, Level A: Cards 6, 8, 9, 27, 28, 29, 30 **Physical Science Lab, Level B:** Cards 6, 8, 9, 27, 28, 29, 30 **Physical Science Lab Teacher's Handbook:** Hands-On Activity 2, *Chemical Reaction Rates,* pages 81-83

Standard 4: The Physical Setting
3. Matter is made up of particles whose properties determine the observable characteristics of matter and its reactivity.
Students develop their own mental models to explain common chemical reactions and changes in states of matter.
Physical Science Lab, Level A: Cards 5, 6, 7, 8, 9, 27, 28, 29, 30 **Physical Science Lab, Level B:** Cards 5, 6, 7, 8, 9, 27, 28, 29, 30 **Physical Science Lab Teacher's Handbook:** Hands-On Activity 2, *Chemical Reaction Rates,* pages 81-83

Standard 4: The Physical Setting
4. Energy exists in many form, and when these forms change energy is conserved.
Students describe the sources and identify the transformations of energy observed in everyday life.
Physical Science Lab, Level A: Cards 37, 38, 39, 40, 41, 42, 45, 46, 47, 48, 49, 68, 69, 70 **Physical Science Lab, Level B:** Cards 37, 38, 39, 40, 41, 42, 45, 46, 47, 48, 49, 68, 69, 70 **Physical Science Lab Teacher's Handbook:** Hands-On Activity 3, *Energy Conversion,* pages 85-87

Standard 4: The Physical Setting
4. Energy exists in many form, and when these forms change energy is conserved.
Students observe and describe heating and cooling events.
Physical Science Lab, Level A: Cards 42, 43, 44 **Physical Science Lab, Level B:** Cards 42, 43, 44

Standard 4: The Physical Setting
4. Energy exists in many form, and when these forms change energy is conserved.
Students observe and describe energy changes as related to chemical reactions.
Physical Science Lab, Level A: Cards 9, 27, 28, 29, 30, 38 **Physical Science Lab, Level B:** Cards 9, 27, 28, 29, 30, 38 **Physical Science Lab Teacher's Handbook:** Hands-On Activity 2, *Chemical Reaction Rates,* pages 81-83

Standard 4: The Physical Setting
4. Energy exists in many form, and when these forms change energy is conserved.
Students observe and describe the properties of sound, light, magnetism, and electricity.
Physical Science Lab, Level A: Cards 66, 67, 68, 69, 74, 75, 77, 78, 79, 80, 82, 83, 85 **Physical Science Lab, Level B:** Cards 66, 67, 68, 69, 74, 75, 77, 78, 79, 80, 82, 83, 85 **Physical Science Lab Teacher's Handbook:** Hands-On Activity 6, *Making Sound,* pages 97-99

Standard 4: The Physical Setting
4. Energy exists in many form, and when these forms change energy is conserved.
Students describe situations that support the principle of conservation of energy.
Physical Science Lab, Level A: Card 37 **Physical Science Lab, Level B:** Card 37

Standard 4: The Physical Setting
5. Energy and matter interact through forces that result in changes in motion.
Students describe different patterns of motion of objects.
Physical Science Lab, Level A: Cards 50, 51, 54, 55, 56, 57, 58, 59 **Physical Science Lab, Level B:** Cards 50, 51, 54, 55, 56, 57, 58, 59 **Physical Science Lab Teacher's Handbook:** Hands-On Activity 4, *Reducing Friction,* pages 89-91

Standard 4: The Physical Setting
5. Energy and matter interact through forces that result in changes in motion.
Students observe, describe, and compare effects of forces (gravity, electric current, and magnetism) on the motion of objects.
Physical Science Lab, Level A: Cards 54, 55, 56, 58, 59, 66, 67, 68, 69, 74, 75 **Physical Science Lab, Level B:** Cards 54, 55, 56, 58, 59, 66, 67, 68, 69, 74, 75

Standard 4: The Living Environment
1. Living things are both similar to and different from each other and nonliving things.
Students compare and contrast the parts of plants, animals, and one-celled organisms.
Life Science Lab, Level A: Cards 6, 7, 11, 12, 14, 15, 16, 17, 18, 19, 20, 21, 22, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 4 0 **Life Science Lab, Level B:** Cards 6, 7, 11, 12, 14, 15, 16, 17, 18, 19, 20, 21, 22, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 4 0 **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

Standard 4: The Living Environment
1. Living things are both similar to and different from each other and nonliving things.
Students explain the functioning of the major human organ systems and their interactions.
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 4: The Living Environment
2. Organisms inherit genetic information in a variety of ways that result in continuity of structure and function between parents and offspring.
Students describe sexual and asexual mechanisms for passing genetic materials from generation to generation.
Life Science Lab, Level A: Cards 60, 61, 62, 63, 64 **Life Science Lab, Level B:** Cards 60, 61, 62, 63, 64

Standard 4: The Living Environment
2. Organisms inherit genetic information in a variety of ways that result in continuity of structure and function between parents and offspring.
Students describe simple mechanisms related to the inheritance of some physical traits in offspring.
Life Science Lab, Level A: Cards 61, 62, 63, 64, 65 **Life Science Lab, Level B:** Cards 61, 62, 63, 64, 65

Standard 4: The Living Environment
3. Individual organisms and species change over time.
Students describe sources of variation in organisms and their structures and relate the variations to survival.
Life Science Lab, Level A: Cards 64, 65, 66, 67 **Life Science Lab, Level B:** Cards 64, 65, 66, 67

Standard 4: The Living Environment
3. Individual organisms and species change over time.
Students describe factors responsible for competition within species and the significance of that competition.
Life Science Lab, Level A: Cards 71, 72, 73, 74, 75 **Life Science Lab, Level B:** Cards 71, 72, 73, 74, 75

Standard 4: The Living Environment
4. The continuity of life is sustained through reproduction and development.
Students observe and describe the variations in reproductive patterns of organisms, including asexual and sexual reproduction.
Life Science Lab, Level A: Cards 18, 19, 20, 21, 22, 40, 42, 60, 61 **Life Science Lab, Level B:** Cards 18, 19, 20, 21, 22, 40, 42, 60, 61

Standard 4: The Living Environment
4. The continuity of life is sustained through reproduction and development.
Students explain the role of sperm and egg cells in sexual reproduction.
Life Science Lab, Level A: Card 61 **Life Science Lab, Level B:** Card 61

Standard 4: The Living Environment
4. The continuity of life is sustained through reproduction and development.
Students observe and describe developmental patterns in selected plants and animals (e.g., insects, frogs, humans, seed-bearing plants).
Life Science Lab, Level A: Cards 20, 22, 42 **Life Science Lab, Level B:** Cards 20, 22, 42

Standard 4: The Living Environment
4. The continuity of life is sustained through reproduction and development.
Students observe and describe cell division at the microscopic level and its macroscopic effects.
Life Science Lab, Level A: Cards 10, 60 **Life Science Lab, Level B:** Cards 10, 60

Standard 4: The Living Environment
5. Organisms maintain a dynamic equilibrium that sustains life.
Students compare the way a variety of living specimens carry out basic life functions and maintain dynamic equilibrium.
Life Science Lab, Level A: Cards 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40 **Life Science Lab, Level B:** Cards 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 27, 28,2 9, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40

Standard 4: The Living Environment
5. Organisms maintain a dynamic equilibrium that sustains life.
Students describe the importance of major nutrients, vitamins, and minerals in maintaining health and promoting growth and explain the need for a constant input of energy for living organisms.
Life Science Lab, Level A: Cards 1, 9, 34, 45, 46 **Life Science Lab, Level B:** Cards 1, 9, 34, 45, 46

Standard 4: The Living Environment
6. Plants and animals depend on each other and their physical environment.
Students describe the flow of energy and matter through food chains and food webs.
Life Science Lab, Level A: Cards 76, 77 **Life Science Lab, Level B:** Cards 76, 77 **Life Science Lab Teacher's Handbook:** Hands-On Activity 6, *How Much Does Energy Cost?,* pages 97-99

Standard 4: The Living Environment
6. Plants and animals depend on each other and their physical environment.
Students provide evidence that green plants make food and explain the significance of this process to other organisms.
Life Science Lab, Level A: Cards 7, 16, 17, 76 **Life Science Lab, Level B:** Cards 7, 16, 17, 76

Standard 4: The Living Environment
7. Human decisions and activities have had a profound impact on the physical and living environment.
Students describe how living things, including humans, depend upon the living and nonliving environment for their survival.
Life Science Lab, Level A: Cards 70, 71, 75, 76, 77, 81, 82, 84, 86, 87, 88, 89, 90 **Life Science Lab, Level B:** Cards 70, 71, 75, 76, 77, 81, 82, 84, 86, 87, 88, 89, 90 **Life Science Lab Teacher's Handbook:** Hands-On Activity 7, *The Effects of Acid Rain,* pages 101-103

Standard 4: The Living Environment
7. Human decisions and activities have had a profound impact on the physical and living environment.
Students describe the effects of environmental changes on humans and other populations.
Life Science Lab, Level A: Cards 80, 84, 86, 87, 88, 89, 90 **Life Science Lab, Level B:** Cards 80, 84, 86, 87, 88, 89, 90 **Life Science Lab Teacher's Handbook:** Hands-On Activity 7, *The Effects of Acid Rain,* pages 101-103 **Earth Science Lab, Level A:** Cards 15, 17, 32, 37, 42, 59, 60, 61, 86 **Earth Science Lab, Level B:** Cards 15, 17, 32, 37, 42, 59, 60, 61, 86 **Earth Science Lab Teacher's Handbook:** Hands-On Activity 5, *What is in the Air?,* pages 89-91