# SRA Life, Earth, and Physical Science Laboratories correlation to Iowa Core Content Standards: Science 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.

## A. Students can understand and apply skills used in scientific inquiry.

## 1. Understand and apply the processes and skills of investigation.

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 15

# A. Students can understand and apply skills used in scientific inquiry.

## 2. Analyze and interpret information from scientific studies.

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

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**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

## B. Students can understand concepts and relationships in life science.

## 1. Understand the structure of living things.

**Life Science Lab, Level A:** Cards 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 44, 47, 58

**Life Science Lab, Level B:** Cards 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 44, 47, 58

**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

# B. Students can understand concepts and relationships in life science.

## 2. Describe and understand life cycles.

**Life Science Lab, Level A:** Cards 10, 11, 12, 15, 18, 19, 20, 21, 22, 32, 40, 58, 60, 61, 62, 63

**Life Science Lab, Level B:** Cards 10, 11, 12, 15, 18, 19, 20, 21, 22, 32, 40, 58, 60, 61, 62, 63

## B. Students can understand concepts and relationships in life science.

# 3. Identify and explain the roles of environmental interactions and adaptations.

**Life Science Lab, Level A:** Cards 23, 41, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90 **Life Science Lab, Level B:** Cards 23, 41, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90 **Life Science Lab Teacher's Handbook:** Hands-On Activity 6, *How Much Does Energy Cost?*, pages 97-99; Hands-On Activity 7, *The Effects of Acid Rain*, pages 101-103

# C. Students can understand concepts and relationships in Earth/space science.

# 1. Describe and understand Earth's composition and structure.

**Earth Science Lab, Level A:** Cards 1, 2, 3, 4, 5, 6, 7, 8, 21, 23, 30, 34, 35, 36, 37, 82, 83, 84, 87, 88, 90

Earth Science Lab, Level B: Cards 1, 2, 3, 4, 5, 6, 7, 8, 21, 23, 30, 34, 35, 36, 37, 82, 83, 84, 87, 88, 90

Earth Science Lab Teacher's Handbook: Hands-On Activity 1, Identifying Minerals with the Mohs Scale, pages 73-75;

Hands-On Activity 3, Interpreting a Topographic Map, pages 81-83; Hands-On Activity 4, Using Sound Waves, pages 85-87;

Hands-On Activity 8, Temperature, Salinity, and Water Density, pages 101-103

## C. Students can understand concepts and relationships in Earth/space science.

# 2. Identify and explain changes in and around Earth.

**Earth Science Lab, Level A:** Cards 9, 10, 11, 12, 13, 14, 15, 16, 17, 22, 24, 25, 26, 27, 28, 29, 32, 33, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 86, 87, 88

Earth Science Lab, Level B: Cards 9, 10, 11, 12, 13, 14, 15, 16, 17, 22, 24, 25, 26, 27, 28, 29, 32, 33, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 86, 87, 88

**Earth Science Lab Teacher's Handbook:** 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

# C. Students can understand concepts and relationships in Earth/space science.

## 3. Understand concepts and relationships of the universe.

Earth Science Lab, Level A: Cards 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81

Earth Science Lab, Level B: Cards 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81

Earth Science Lab Teacher's Handbook: Hands-On Activity 7, Sizes in the Solar System, pages 97-99

#### D. Students can understand concepts and relationships in physical science.

1. Describe and explain concepts related to mechanics, forces, and motion.

Physical Science Lab, Level A: Cards 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65

Physical Science Lab, Level B: Cards 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65

Physical Science Lab Teacher's Handbook: Hands-On Activity 4, Reducing Friction, pages 89-91

## D. Students can understand concepts and relationships in physical science.

# 2. Understand the concept of energy and its various forms.

**Physical Science Lab, Level A:** Cards 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 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

**Physical Science Lab, Level B:** Cards 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 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

**Physical Science Lab Teacher's Handbook:** Hands-On Activity 3, *Energy Conversion*, pages 85-87; Hands-On Activity 5, *Making a Potato Battery*, pages 93-95; Hands-On Activity 6, *Making Sound*, pages 97-99

## D. Students can understand concepts and relationships in physical science.

# 3. Identify and explain the properties and changes of matter.

**Physical Science Lab, Level A:** Cards 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

**Physical Science Lab, Level B:** Cards 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

**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