SRA Skills Handbook: Using Science

correlation to

Illinois Learning Standards: Science: Early Elementary Grade 1

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

A. Know and apply the concepts, principles, and processes of scientific inquiry.

11.A.1a. Describe an observed event.

Student Edition: Cards 1.3, 1.4, 1.5, 1.6, 1.9, 1.11, 1.12

Teacher's Guide: pages 12, 13, 14, 15, 16, 17, 18, 19, 24, 25, 28, 29, 30, 31, 44, 45, 46, 47, 48, 49, 50, 51, 56, 57, 60, 61, 62, 63

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

A. Know and apply the concepts, principles, and processes of scientific inquiry.

11.A.1b. Develop questions on scientific topics.

Student Edition: Card 1.4

Teacher's Guide: pages 14, 15, 46, 47

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

A. Know and apply the concepts, principles, and processes of scientific inquiry.

11.A.1c. Collect data for investigations using measuring instruments and technologies.

Student Edition: Cards 1.2, 1.3, 1.5

Teacher's Guide: pages 10, 11, 12, 13, 16, 17, 42, 43, 44, 45, 48, 49

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

 $\label{eq:A.Know} \textbf{A. Know and apply the concepts, principles, and processes of scientific inquiry.}$

11.A.1d. Record and store data using available technologies.

Student Edition: Card 1.3

Teacher's Guide: pages 12, 13, 44, 45

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

A. Know and apply the concepts, principles, and processes of scientific inquiry.

11.A.1e. Arrange data into logical patterns and describe the patterns.

Student Edition: Cards 1.3, 1.13, 1.14, 1.15, 1.16

Teacher's Guide: pages 12, 13, 32, 33, 34, 35, 36, 37, 38, 39, 44, 45, 46, 47, 64, 65, 66, 67, 68, 69, 70, 71

A. Know and apply the concepts, principles, and processes of scientific inquiry.

11.A.1f. Compare observations of individual and group results.

Student Edition: Card 1.1

Teacher's Guide: pages 8, 9, 40, 41

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

B. Know and apply the concepts, principles and processes of technological design.

11.B.1a. Given a simple design problem, formulate possible solutions.

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

B. Know and apply the concepts, principles and processes of technological design.

11.B.1b. Design a device that will be useful in solving the problem.

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

B. Know and apply the concepts, principles and processes of technological design.

11.B.1c. Build the device using the materials and tools provided.

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

B. Know and apply the concepts, principles and processes of technological design.

11.B.1d. Test the device and record results using given instruments, techniques and measurement methods.

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

B. Know and apply the concepts, principles and processes of technological design.

11.B.1e. Report the design of the device, the text process and the results in solving a given problem.

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

A. Know and apply concepts that explain how living things function, adapt and change.

12.A.1a. Identify and describe the component parts of living things (e.g., birds have feathers, people have bones, blood, hair, skin) and their major functions.

Student Edition: Cards 1.1, 1.5, 1.10, 1.16

Teacher's Guide: pages 8, 9, 16, 17, 26, 27, 38, 39, 40, 41, 48, 49, 58, 59, 70, 71

A. Know and apply concepts that explain how living things function, adapt and change.

12.A.1b. Categorize living organisms using a variety of observable features (e.g., size, color, shape, backbone).

Student Edition: Cards 1.1, 1.5, 1.7, 1.14, 1.16

Teacher's Guide: pages 8, 9, 16, 17, 20, 21, 34, 35, 38, 39, 40, 41, 48, 49, 52, 53, 66, 67, 70, 71

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

B. Know and apply concepts that describe how living things interact with each other and with their environment.

12.B.1a. Describe and compare characteristics of living things in relationship to their environment.

Student Edition: Cards 1.1, 1.3, 1.7, 1.15, 1.16

Teacher's Guide: pages 8, 9, 16, 17, 20, 21, 36, 37, 38, 39, 40, 41, 48, 49, 52, 53, 68, 69, 70, 71

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

B. Know and apply concepts that describe how living things interact with each other and with their environment.

12.B.1b. Describe how living things depend on one another for survival.

Student Edition: Cards 1.7, 1.10, 1.13, 1.15

Teacher's Guide: pages 20, 21, 26, 27, 32, 33, 36, 37, 52, 53, 58, 59, 64, 65, 68, 69

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

C. Know and apply concepts that describe properties of matter and energy and the interactions between them.

12.C.1a. Identify and compare sources of energy (e.g., batteries, the sun).

Student Edition: Cards 1.4, 1.11

Teacher's Guide: pages 14, 15, 28, 29, 46, 47, 60, 61

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

C. Know and apply concepts that describe properties of matter and energy and the interactions between them.

12.C.1b. Compare large-scale physical properties of matter (e.g., size, shape, color, texture, odor).

Student Edition: Card 1.2

Teacher's Guide: pages 10, 11, 42, 43

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

D. Know and apply concepts that describe force and motion and the principles that explain them.

12.D.1a. Identify examples of motion (e.g., moving in a straight line, vibrating, rotating).

Student Edition: Cards 1.4, 1.6

Teacher's Guide: pages 14, 15, 18, 19, 46, 47, 50, 51

D. Know and apply concepts that describe force and motion and the principles that explain them.

12.D.1b. Identify observable forces in nature (e.g., pushes, pulls, gravity, magnetism).

Student Edition: Cards 1.4, 1.6

Teacher's Guide: pages 14, 15, 18, 19, 46, 47, 50, 51

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

E. Know and apply concepts that describe the features and processes of the Earth and its resources.

12.E.1a. Identify components and describe diverse features of the Earth's land, water and atmospheric systems.

Student Edition: Cards 1.3, 1.9

Teacher's Guide: pages 12, 13, 24, 25, 44, 45, 56, 57

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

E. Know and apply concepts that describe the features and processes of the Earth and its resources.

12.E.1b. Identify and describe patterns of weather and seasonal change.

Student Edition: Cards 1.3, 1.9

Teacher's Guide: pages 12, 13, 24, 25, 44, 45, 56, 57

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

E. Know and apply concepts that describe the features and processes of the Earth and its resources.

12.E.1c. Identify renewable and nonrenewable natural resources.

Student Edition: Card 1.11

Teacher's Guide: pages 28, 29, 60, 61

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

F. Know and apply concepts that explain the composition and structure of the universe and Earth's place in it.

12.F.1a. Identify and describe characteristics of the sun, Earth and moon as familiar objects in the solar system.

Student Edition: Card 1.11

Teacher's Guide: pages 28, 29, 60, 61

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

F. Know and apply concepts that explain the composition and structure of the universe and Earth's place in it. 12.F.1b. Identify daily, seasonal and annual patterns related to the Earth's rotation and revolution.

Student Edition: Cards 1.3, 1.9, 1.11

Teacher's Guide: pages 12, 13, 24, 25, 28, 29, 44, 45, 56, 57, 60, 61

A. Know and apply the accepted practices of science.

13.A.1a. Use basic safety practices (e.g., not tasting materials without permission, "stop/drop/roll").

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

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

A. Know and apply the accepted practices of science.

13.A.1b. Explain why similar results are expected when procedures are done the same way.

Student Edition: Cards 1.12,1.13

Teacher's Guide: pages 10, 11, 12, 13, 42, 43, 44, 45

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

A. Know and apply the accepted practices of science.

13.A.1c. Explain how knowledge can be gained by careful observation.

Student Edition: Cards 1.3, 1.4, 1.5, 1.6, 1.9, 1.11, 1.12

Teacher's Guide: pages 12, 13, 14, 15, 16, 17, 18, 19, 24, 25, 28, 29, 30, 31, 44, 45, 46, 47, 48, 49, 50, 51, 56, 57, 60, 61, 62, 63

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

B. Know and apply concepts that describe the interaction between science, technology and society.

13.B.1a. Explain the uses of common scientific instruments (e.g., ruler, thermometer, balance, probe, computer).

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

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

B. Know and apply concepts that describe the interaction between science, technology and society.

13.B.1b. Explain how using measuring tools improves the accuracy of estimates.

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

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

B. Know and apply concepts that describe the interaction between science, technology and society.

13.B.1c. Describe contributions men and women have made to science and technology.

Student Edition: Card 1.8

Teacher's Guide: pages 22, 23, 54, 55

B. Know and apply concepts that describe the interaction between science, technology and society.

13.B.1d. Identify and describe ways that science and technology affect people's everyday lives (e.g., transportation, medicine, agriculture, sanitation, communications occupations).

Student Edition: Cards 1.4, 1.6, 1.8, 1.12

Teacher's Guide: pages 15, 19, 22, 23, 32, 33, 50, 51, 54, 55

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

B. Know and apply concepts that describe the interaction between science, technology and society.

13.B.1e. Demonstrate ways to reduce, reuse and recycle materials.

SRA Skills Handbook: Using Science

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Illinois Learning Standards: Science: Early Elementary Grade 2

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

A. Know and apply the concepts, principles, and processes of scientific inquiry.

11.A.1a. Describe an observed event.

Student Edition: Cards 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.8, 2.9, 2.14, 2.15

Teacher's Guide: pages 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 22, 23, 24, 25, 34, 35, 36, 37, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 54, 55, 56, 57, 66, 67, 68, 69

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

A. Know and apply the concepts, principles, and processes of scientific inquiry.

11.A.1b. Develop questions on scientific topics.

Student Edition: Cards 2.3, 2.4, 2.10, 2.12

Teacher's Guide: pages 12, 13, 14, 15, 26, 27, 30, 31, 44, 45, 46, 47, 58, 59, 62, 63

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

A. Know and apply the concepts, principles, and processes of scientific inquiry.

11.A.1c. Collect data for investigations using measuring instruments and technologies.

Student Edition: Cards 2.2, 2.4, 2.7, 2.8

Teacher's Guide: pages 8, 9, 14, 15, 20, 21, 22, 23, 40, 41, 46, 47, 52, 53, 54, 55

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

A. Know and apply the concepts, principles, and processes of scientific inquiry.

11.A.1d. Record and store data using available technologies.

Student Edition: Cards 2.2, 2.9

Teacher's Guide: pages 8, 9, 24, 25, 40, 41, 56, 57

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

A. Know and apply the concepts, principles, and processes of scientific inquiry.

11.A.1e. Arrange data into logical patterns and describe the patterns.

Student Edition: Cards 2.2, 2.7, 2.8, 2.9, 2.10, 2.13, 2.14, 2.15

Teacher's Guide: pages 8, 9, 20, 21, 22, 23, 24, 25, 32, 33, 34, 35, 36, 37, 40, 41, 52, 53, 54, 55, 56, 57, 58, 59, 64, 65, 66, 67, 68, 69

A. Know and apply the concepts, principles, and processes of scientific inquiry.

11.A.1f. Compare observations of individual and group results.

Student Edition: Cards 2.2, 2.4, 2.6, 2.8, 2.9

Teacher's Guide: pages 8, 9, 14, 15, 18, 19, 22, 23, 24, 25, 40, 41, 46, 47, 50, 51, 54, 55, 56, 57

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

B. Know and apply the concepts, principles and processes of technological design.

11.B.1a. Given a simple design problem, formulate possible solutions.

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

B. Know and apply the concepts, principles and processes of technological design.

11.B.1b. Design a device that will be useful in solving the problem.

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

B. Know and apply the concepts, principles and processes of technological design.

11.B.1c. Build the device using the materials and tools provided.

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

B. Know and apply the concepts, principles and processes of technological design.

11.B.1d. Test the device and record results using given instruments, techniques and measurement methods.

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

B. Know and apply the concepts, principles and processes of technological design.

11.B.1e. Report the design of the device, the text process and the results in solving a given problem.

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

A. Know and apply concepts that explain how living things function, adapt and change.

12.A.1a. Identify and describe the component parts of living things (e.g., birds have feathers, people have bones, blood, hair, skin) and their major functions.

Student Edition: Cards 2.1, 2.5, 2.7, 2.9, 2.14, 2.16

Teacher's Guide: pages 8, 9, 16, 17, 20, 21, 24, 25, 34, 35, 38, 39, 40, 41, 48, 49, 52, 53, 56, 57, 66, 67, 70, 71

A. Know and apply concepts that explain how living things function, adapt and change.

12.A.1b. Categorize living organisms using a variety of observable features (e.g., size, color, shape, backbone).

Student Edition: Cards 2.7, 2.9, 2.14, 2.16

Teacher's Guide: pages 20, 21, 24, 25, 34, 35, 38, 39, 52, 53, 56, 57, 66, 67, 70, 71

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

B. Know and apply concepts that describe how living things interact with each other and with their environment.

12.B.1a. Describe and compare characteristics of living things in relationship to their environment.

Student Edition: Cards 2.5, 2.7, 2.9, 2.14, 2.16

Teacher's Guide: pages 16, 17, 20, 21, 24, 25, 34, 35, 38, 39, 48, 49, 52, 53, 56, 57, 66, 67, 70, 71

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

B. Know and apply concepts that describe how living things interact with each other and with their environment.

12.B.1b. Describe how living things depend on one another for survival.

Student Edition: Cards 2.9, 2.14

Teacher's Guide: pages 24, 25, 34, 35, 56, 57, 66, 67

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

C. Know and apply concepts that describe properties of matter and energy and the interactions between them.

12.C.1a. Identify and compare sources of energy (e.g., batteries, the sun).

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

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

C. Know and apply concepts that describe properties of matter and energy and the interactions between them.

12.C.1b. Compare large-scale physical properties of matter (e.g., size, shape, color, texture, odor).

Student Edition: Cards 2.4, 2.6, 2.13

Teacher's Guide: pages 14, 15, 18, 19, 32, 33, 46, 47, 50, 51, 64, 65

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

D. Know and apply concepts that describe force and motion and the principles that explain them.

12.D.1a. Identify examples of motion (e.g., moving in a straight line, vibrating, rotating).

Student Edition: Cards 2.8, 2.15

Teacher's Guide: pages 22, 23, 36, 37, 54, 55, 68, 69

D. Know and apply concepts that describe force and motion and the principles that explain them.

12.D.1b. Identify observable forces in nature (e.g., pushes, pulls, gravity, magnetism).

Student Edition: Cards 2.8, 2.15

Teacher's Guide: pages 22, 23, 36, 37, 54, 55, 68, 69

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

E. Know and apply concepts that describe the features and processes of the Earth and its resources.

12.E.1a. Identify components and describe diverse features of the Earth's land, water and atmospheric systems.

Student Edition: Cards 2.8, 2.10

Teacher's Guide: pages 22, 23, 26, 27, 54, 55, 58, 59

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

E. Know and apply concepts that describe the features and processes of the Earth and its resources.

12.E.1b. Identify and describe patterns of weather and seasonal change.

Student Edition: Cards 2.8, 2.10, 2.16

Teacher's Guide: pages 22, 23, 26, 27, 38, 39, 54, 55, 58, 59

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

E. Know and apply concepts that describe the features and processes of the Earth and its resources.

12.E.1c. Identify renewable and nonrenewable natural resources.

Student Edition: Cards 2.4, 2.6

Teacher's Guide: pages 14, 15, 18, 19, 46, 47, 50, 51

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

F. Know and apply concepts that explain the composition and structure of the universe and Earth's place in it.

12.F.1a. Identify and describe characteristics of the sun, Earth and moon as familiar objects in the solar system.

Student Edition: Card 2.16

Teacher's Guide: pages 38, 39

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

F. Know and apply concepts that explain the composition and structure of the universe and Earth's place in it. 12.F.1b. Identify daily, seasonal and annual patterns related to the Earth's rotation and revolution.

Student Edition: Cards 2.8, 2.10, 2.16

Teacher's Guide: pages 22, 23, 26, 27, 38, 39, 54, 55, 58, 59

A. Know and apply the accepted practices of science.

13.A.1a. Use basic safety practices (e.g., not tasting materials without permission, "stop/drop/roll").

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

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

A. Know and apply the accepted practices of science.

13.A.1b. Explain why similar results are expected when procedures are done the same way.

Student Edition: Cards 2.4, 2.13

Teacher's Guide: pages 14, 15, 32, 33, 46, 47, 64, 65

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

A. Know and apply the accepted practices of science.

13.A.1c. Explain how knowledge can be gained by careful observation.

Student Edition: Cards 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.8, 2.9, 2.14, 2.15

Teacher's Guide: pages 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 22, 23, 24, 25, 34, 35, 36, 37, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 54, 55, 56, 57, 66, 67, 68, 69

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

B. Know and apply concepts that describe the interaction between science, technology and society.

13.B.1a. Explain the uses of common scientific instruments (e.g., ruler, thermometer, balance, probe, computer).

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

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

B. Know and apply concepts that describe the interaction between science, technology and society.

13.B.1b. Explain how using measuring tools improves the accuracy of estimates.

Student Edition: Cards 2.2, 2.3, 2.7

Teacher's Guide: pages 10, 11, 12, 13, 42, 43, 44, 45, 53

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

B. Know and apply concepts that describe the interaction between science, technology and society.

13.B.1c. Describe contributions men and women have made to science and technology.

B. Know and apply concepts that describe the interaction between science, technology and society.

13.B.1d. Identify and describe ways that science and technology affect people's everyday lives (e.g., transportation, medicine, agriculture, sanitation, communications occupations).

Student Edition: Cards 2.1, 2.3, 2.6, 2.15

Teacher's Guide: pages 8, 9, 12, 13, 18, 19, 36, 37, 40, 41, 44, 45, 50, 51, 68, 69

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

B. Know and apply concepts that describe the interaction between science, technology and society.

13.B.1e. Demonstrate ways to reduce, reuse and recycle materials.

Student Edition: Cards 2.4, 2.6

Teacher's Guide: pages 14, 15, 18, 19, 46, 47, 50, 51

SRA Skills Handbook: Using Science

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Illinois Learning Standards: Science: Early Elementary Grade 3

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

A. Know and apply the concepts, principles, and processes of scientific inquiry.

11.A.1a. Describe an observed event.

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, 60, 61, 62, 63, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 106, 107, 108, 109, 110, 111

Teacher's Guide: pages 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 24, 25, 34, 35, 36, 37, 44, 45

Skills Workbook: pages 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 23, 24, 33, 34, 35, 36, 43, 44

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

A. Know and apply the concepts, principles, and processes of scientific inquiry.

11.A.1b. Develop questions on scientific topics.

Student Edition: pages 4, 5, 6, 7, 18, 19, 20, 21, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 42, 43, 44, 45, 46, 47, 64, 65, 66, 67, 78, 79, 80, 81, 92, 93, 94, 95, 132, 133, 134, 135, 152, 153, 154, 155, 156, 157

Teacher's Guide: pages 2, 3, 8, 9, 12, 13, 14, 15, 18, 19, 26, 27, 32, 33, 38, 39, 54, 55, 62, 63

Skills Workbook: pages 1, 2, 7, 8, 11, 12, 13, 14, 17, 18, 25, 26, 31, 32, 37, 38, 53, 54, 61, 62

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

A. Know and apply the concepts, principles, and processes of scientific inquiry.

11.A.1c. Collect data for investigations using measuring instruments and technologies.

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, 56, 57, 58, 59, 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, 22, 23, 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, 21, 22, 43, 44, 61, 62, 67, 68, 69, 70, 71, 72

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

A. Know and apply the concepts, principles, and processes of scientific inquiry.

11.A.1d. Record and store data using available technologies.

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, 56, 57, 58, 59, 106, 107, 108, 109, 110, 111, 140, 141, 142, 143, 144, 145, 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

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A. Know and apply the concepts, principles, and processes of scientific inquiry.

11.A.1e. Arrange data into logical patterns and describe the patterns.

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, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 106, 107, 108, 109, 110, 111, 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, 188, 189, 190, 191

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State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

A. Know and apply the concepts, principles, and processes of scientific inquiry.

11.A.1f. Compare observations of individual and group results.

Student Edition: pages 4, 5, 6, 7, 14, 15, 16, 17, 18, 19, 20, 21, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 42, 43, 44, 45, 46, 47, 56, 57, 58, 59, 96, 97, 98, 99, 106, 107, 108, 109, 110, 111, 132, 133, 134, 135, 152, 153, 154, 155, 156, 157, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181

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State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

B. Know and apply the concepts, principles and processes of technological design.

11.B.1a. Given a simple design problem, formulate possible solutions.

Student Edition: pages 4, 5, 6, 7, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37

Teacher's Guide: pages 2, 3, 12, 13, 14, 15

Skills Workbook: pages 1, 2, 11, 12, 13, 14

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

B. Know and apply the concepts, principles and processes of technological design.

11.B.1b. Design a device that will be useful in solving the problem.

Student Edition: pages 4, 5, 6, 7, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37

Teacher's Guide: pages 2, 3, 12, 13, 14, 15

Skills Workbook: pages 1, 2, 11, 12, 13, 14

B. Know and apply the concepts, principles and processes of technological design.

11.B.1c. Build the device using the materials and tools provided.

Student Edition: pages 4, 5, 6, 7, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37

Teacher's Guide: pages 2, 3, 12, 13, 14, 15

Skills Workbook: pages 1, 2, 11, 12, 13, 14

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

B. Know and apply the concepts, principles and processes of technological design.

11.B.1d. Test the device and record results using given instruments, techniques and measurement methods.

Student Edition: pages 4, 5, 6, 7, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37

Teacher's Guide: pages 2, 3, 12, 13, 14, 15

Skills Workbook: pages 1, 2, 11, 12, 13, 14

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

B. Know and apply the concepts, principles and processes of technological design.

11.B.1e. Report the design of the device, the text process and the results in solving a given problem.

Student Edition: pages 4, 5, 6, 7, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37

Teacher's Guide: pages 2, 3, 12, 13, 14, 15

Skills Workbook: pages 1, 2, 11, 12, 13, 14

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

A. Know and apply concepts that explain how living things function, adapt and change.

12.A.1a. Identify and describe the component parts of living things (e.g., birds have feathers, people have bones, blood, hair, skin) and their major functions.

Student Edition: pages 68, 69, 70, 71, 72, 73, 102, 103, 104, 105, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 1322, 134, 135, 174, 175, 176, 177, 182, 183, 184, 185, 186, 187

Teacher's Guide: pages 28, 29, 42, 43, 50, 51, 52, 53, 54, 55, 70, 71, 74, 75

Skills Workbook: pages 27, 28, 41, 42, 49, 50, 51, 52, 53, 54, 69, 70, 73, 74

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

A. Know and apply concepts that explain how living things function, adapt and change.

12.A.1b. Categorize living organisms using a variety of observable features (e.g., size, color, shape, backbone).

Student Edition: pages 78, 79, 80, 81, 102, 103, 104, 105, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 174, 175, 176, 177

Teacher's Guide: pages 32, 33, 42, 43, 50, 51, 52, 53, 54, 55, 70, 71

Skills Workbook: pages 31, 32, 41, 42, 49, 50, 51, 52, 53, 54, 69, 70

B. Know and apply concepts that describe how living things interact with each other and with their environment.

12.B.1a. Describe and compare characteristics of living things in relationship to their environment.

Student Edition: pages 38, 39, 40, 41, 68, 69, 70, 71, 72, 73, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 128, 129, 130, 131, 174, 175, 176, 177

Teacher's Guide: pages 16, 17, 28, 29, 32, 33, 34, 35, 52, 53, 70, 71

Skills Workbook: pages 15, 16, 27, 28, 31, 32, 33, 34, 51, 52, 69, 70

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

B. Know and apply concepts that describe how living things interact with each other and with their environment.

12.B.1b. Describe how living things depend on one another for survival.

Student Edition: pages 38, 39, 40, 41, 56, 57, 58, 59, 68, 69, 70, 71, 72, 73, 82, 83, 84, 85, 86, 87, 128, 129, 130, 131, 166, 167, 168, 169

Teacher's Guide: pages 16, 17, 22, 23, 28, 29, 34, 35, 52, 53, 66, 67

Skills Workbook: pages 15, 16, 21, 22, 27, 28, 33, 34, 51, 52, 65, 66

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

C. Know and apply concepts that describe properties of matter and energy and the interactions between them.

12.C.1a. Identify and compare sources of energy (e.g., batteries, the sun).

Student Edition: pages 18, 19, 20, 21, 64, 65, 66, 67, 146, 147, 148, 149, 150, 151

Teacher's Guide: pages 8, 9, 26, 27, 60, 61

Skills Workbook: pages 7, 8, 25, 26, 59, 60

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

C. Know and apply concepts that describe properties of matter and energy and the interactions between them.

12.C.1b. Compare large-scale physical properties of matter (e.g., size, shape, color, texture, odor).

Student Edition: pages 64, 65, 66, 67, 112, 113, 114, 115, 116, 117, 136, 137, 138, 139, 146, 147, 148, 149, 150, 151

Teacher's Guide: pages 26, 27, 46, 47, 56, 57, 60, 61

Skills Workbook: pages 25, 26, 45, 46, 55, 56, 59, 60

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

D. Know and apply concepts that describe force and motion and the principles that explain them.

12.D.1a. Identify examples of motion (e.g., moving in a straight line, vibrating, rotating).

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

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D. Know and apply concepts that describe force and motion and the principles that explain them.

12.D.1b. Identify observable forces in nature (e.g., pushes, pulls, gravity, magnetism).

Student Edition: pages 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 96, 97, 98, 99

Teacher's Guide: pages 10, 11, 12, 13, 40, 41

Skills Workbook: pages 9, 10, 11, 12, 39, 40

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

E. Know and apply concepts that describe the features and processes of the Earth and its resources.

12.E.1a. Identify components and describe diverse features of the Earth's land, water and atmospheric systems.

Student Edition: pages 4, 5, 6, 7, 18, 19, 20, 21, 32, 33, 34, 35, 36, 37, 60, 61, 62, 63, 74, 75, 76, 77, 88, 89, 90, 91, 178, 179, 180, 181, 188, 189, 190, 191, 196, 197, 198, 199, 200, 201

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Skills Workbook: pages 1, 2, 7, 8, 13, 14, 23, 24, 29, 30, 35, 36, 71, 72, 75, 76, 79, 80

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

E. Know and apply concepts that describe the features and processes of the Earth and its resources.

12.E.1b. Identify and describe patterns of weather and seasonal change.

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

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

E. Know and apply concepts that describe the features and processes of the Earth and its resources.

12.E.1c. Identify renewable and nonrenewable natural resources.

Student Edition: pages 92, 93, 94, 95, 170, 171, 172, 173, 178, 179, 180, 181

Teacher's Guide: pages 38, 39, 68, 69, 72, 73

Skills Workbook: pages 37, 38, 67, 68, 71, 72

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

F. Know and apply concepts that explain the composition and structure of the universe and Earth's place in it.

12.F.1a. Identify and describe characteristics of the sun, Earth and moon as familiar objects in the solar system.

Student Edition: pages 4, 5, 6, 7, 42, 43, 44, 45, 46, 47, 50, 51, 52, 53, 54, 55

Teacher's Guide: pages 2, 3, 18, 19, 20, 21

Skills Workbook: pages 1, 2, 17, 18, 19, 20

F. Know and apply concepts that explain the composition and structure of the universe and Earth's place in it.

12.F.1b. Identify daily, seasonal and annual patterns related to the Earth's rotation and revolution.

Student Edition: pages 42, 43, 44, 45, 46, 47, 60, 61, 62, 63

Teacher's Guide: pages 18, 19, 24, 25

Skills Workbook: pages 17, 18, 23, 24

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

A. Know and apply the accepted practices of science.

13.A.1a. Use basic safety practices (e.g., not tasting materials without permission, "stop/drop/roll").

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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State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

A. Know and apply the accepted practices of science.

13.A.1b. Explain why similar results are expected when procedures are done the same way.

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

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

A. Know and apply the accepted practices of science.

13.A.1c. Explain how knowledge can be gained by careful observation.

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, 60, 61, 62, 63, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 106, 107, 108, 109, 110, 111

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B. Know and apply concepts that describe the interaction between science, technology and society.

13.B.1a. Explain the uses of common scientific instruments (e.g., ruler, thermometer, balance, probe, computer).

Student Edition: pages 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 32, 33, 34, 35, 36, 37, 106, 107, 108, 109, 110, 111, 170, 171, 172, 173, 178, 179, 180, 181

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Skills Workbook: pages 3, 4, 5, 6, 13, 14, 43, 44, 67, 68, 71, 72

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

B. Know and apply concepts that describe the interaction between science, technology and society.

13.B.1b. Explain how using measuring tools improves the accuracy of estimates.

Student Edition: pages 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 32, 33, 34, 35, 36, 37, 106, 107, 108, 109, 110, 111

Teacher's Guide: pages 4, 5, 6, 7, 14, 15, 44, 45

Skills Workbook: pages 3, 4, 5, 6, 13, 14, 43, 44

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

B. Know and apply concepts that describe the interaction between science, technology and society.

13.B.1c. Describe contributions men and women have made to science and technology.

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

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Skills Workbook: pages 9, 10, 15, 16, 43, 44, 55, 56, 57, 58, 63, 64

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

B. Know and apply concepts that describe the interaction between science, technology and society.

13.B.1d. Identify and describe ways that science and technology affect people's everyday lives (e.g., transportation, medicine, agriculture, sanitation, communications occupations).

Student Edition: pages 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 56, 57, 58, 59, 96, 97, 98, 99, 118, 119, 120, 121, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 160, 161, 162, 163, 164, 165, 192, 193, 194, 195

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State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

B. Know and apply concepts that describe the interaction between science, technology and society.

13.B.1e. Demonstrate ways to reduce, reuse and recycle materials.

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

SRA Skills Handbook: Using Science

correlation to

Illinois Learning Standards: Science: Late Elementary Grade 4

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

A. Know and apply the concepts, principles, and processes of scientific inquiry.

11.A.2a. Formulate questions on a specific science topic and choose the steps needed to answer the questions.

Student Edition: pages 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 90, 91, 92, 93, 94, 95, 96, 97, 136, 137, 138, 139, 140, 154, 155, 156, 157, 158, 159

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Skills Handbook: pages 7, 8, 9, 10, 11, 12, 13, 14, 37, 38, 39, 40, 55, 56, 61, 62

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

A. Know and apply the concepts, principles, and processes of scientific inquiry.

11.A.2b. Collect data for investigations using scientific process skills, including observing, estimating, and measuring. 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

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State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

A. Know and apply the concepts, principles, and processes of scientific inquiry.

11.A.2c. Construct charts and visualizations to display data.

Student Edition: pages 4, 5, 6, 7, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 42, 43, 44, 45, 46, 47, 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

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A. Know and apply the concepts, principles, and processes of scientific inquiry.

11.A.2d. Use data to produce reasonable explanations.

Student Edition: pages 8, 9, 10, 11, 12, 13, 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, 82, 83, 84, 85, 86, 87, 88, 89, 100, 101, 102, 103

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State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

A. Know and apply the concepts, principles, and processes of scientific inquiry.

11.A.2e. Report and display the results of individual and group investigations.

Student Edition: pages 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 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, 78, 79, 80, 81, 82, 83, 84, 85, 148, 149, 150, 151, 152, 153, 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

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State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

B. Know and apply the concepts, principles and processes of technological design.

11.B.2a. Identify a design problem and propose possible solutions.

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

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

B. Know and apply the concepts, principles and processes of technological design.

11.B.2b. Develop a plan, design and procedure to address the problem identifying constraints (e.g., time, materials, technology).

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

B. Know and apply the concepts, principles and processes of technological design.

11.B.2c. Build a prototype of the design using available tools and materials.

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

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

B. Know and apply the concepts, principles and processes of technological design.

11.B.2d. Test the prototype using suitable instruments, techniques and quantitative measurements to record data.

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

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

B. Know and apply the concepts, principles and processes of technological design.

11.B.2e. Assess test results and the effectiveness of the design using given criteria and noting possible sources of error.

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

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

B. Know and apply the concepts, principles and processes of technological design.

11.B.2f. Report test design, test process and test results.

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

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

A. Know and apply concepts that explain how living things function, adapt and change.

12.A.2a. Describe simple life cycles of plants and animals and the similarities and differences in their offspring.

Student Edition: pages 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 184, 185, 186, 187, 188, 189

Teacher's Guide: pages 12, 13, 14, 15, 74, 75

Skills Handbook: pages 11, 12, 13, 14, 73, 74

A. Know and apply concepts that explain how living things function, adapt and change.

12.A.2b. Categorize features as either inherited or learned (e.g., flower color or eye color is inherited; language is learned).

Student Edition: pages 38, 39, 40, 41

Teacher's Guide: pages 16, 17

Skills Handbook: pages 15, 16

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

B. Know and apply concepts that describe how living things interact with each other and with their environment.

12.B.2a. Describe relationships among various organisms in their environments (e.g., predator/prey, parasite/host, food chains and food webs).

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

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

B. Know and apply concepts that describe how living things interact with each other and with their environment.

12.B.2b. Identify physical features of plants and animals that help them live in different environments (e.g., specialized teeth for eating certain foods, thorns for protection, insulation for cold temperature).

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

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

C. Know and apply concepts that describe properties of matter and energy and the interactions between them.

12.C.2a. Describe and compare types of energy including light, heat, sound, electrical and mechanical.

Student Edition: pages 58, 59, 60, 61, 72, 73, 74, 75, 76, 77, 108, 109, 110, 111, 112, 113, 194, 195, 196, 197

Teacher's Guide: pages 24, 25, 30, 31, 46, 47, 78, 79

Skills Handbook: pages 23, 24, 29, 30, 45, 46, 77, 78

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

C. Know and apply concepts that describe properties of matter and energy and the interactions between them.

12.C.2b. Describe and explain the properties of solids, liquids, and gases.

Student Edition: pages 132, 133, 134, 135

Teacher's Guide: pages 54, 55

Skills Handbook: pages 53, 54

D. Know and apply concepts that describe force and motion and the principles that explain them.

12.D.2a. Explain constant, variable and periodic motions.

Student Edition: pages 4, 5, 6, 7, 22, 23, 24, 25, 26, 27, 142, 143, 144, 145, 146, 147, 162, 163, 164, 165

Teacher's Guide: pages 2, 3, 10, 11, 58, 59, 64, 65

Skills Handbook: pages 1, 2, 9, 10, 57, 58, 63, 64

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

D. Know and apply concepts that describe force and motion and the principles that explain them.

12.D.2b. Demonstrate and explain ways that forces cause actions and reactions (e.g., magnets attracting and repelling; objects falling, rolling and bouncing).

Student Edition: pages 4, 5, 6, 7, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 50, 51, 52, 53, 142, 143, 144, 145, 146, 147, 162, 163, 164, 165

Teacher's Guide: pages 2, 3, 8, 9, 10, 11, 20, 21, 58, 59, 64, 65

Skills Handbook: pages 1, 2, 7, 8, 9, 10, 19, 20, 57, 58, 63, 64

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

E. Know and apply concepts that describe the features and processes of the Earth and its resources.

12.E.2a. Identify and explain natural cycles of the Earth's land, water and atmosphere (e.g., rock cycle, water cycle, weather patterns).

Student Edition: pages 82, 83, 84, 85, 120, 121, 122, 123, 124, 125, 174, 175, 176, 177, 178, 179, 190, 191, 192, 193

Teacher's Guide: pages 34, 35, 50, 51, 70, 71, 76, 77

Skills Handbook: pages 33, 34, 49, 50, 69, 70, 75, 76

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

E. Know and apply concepts that describe the features and processes of the Earth and its resources.

12.E.2b. Describe ad explain short-term and long-term interactions on the Earth's components (e.g., earthquakes, types of erosion).

Student Edition: pages 4, 5, 6, 7, 82, 83, 84, 85, 120, 121, 122, 123, 124, 125, 136, 137, 138, 139, 140, 141

Teacher's Guide: pages 2, 3, 34, 35, 50, 51, 56, 57

Skills Handbook: pages 1, 2, 33, 34, 49, 50, 55, 56

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

E. Know and apply concepts that describe the features and processes of the Earth and its resources.

12.E.2c. Identify and classify recyclable materials.

Student Edition: pages 14, 15, 16, 17, 154, 155, 156, 157, 158, 159, 180, 181, 182, 183

Teacher's Guide: pages 6, 7, 62, 63, 72, 73

Skills Handbook: pages 5, 6, 61, 62, 71, 72

F. Know and apply concepts that explain the composition and structure of the universe and Earth's place in it. 12.F.2a. Identify and explain natural cycles and patterns in the solar system (e.g., order of the planets; moon phases; seasons as related to Earth's tilt, one's latitude, and where Earth is in its yearly orbit around the sun).

Student Edition: pages 54, 55, 56, 57

Teacher's Guide: pages 22, 23

Skills Handbook: pages 21, 22

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

F. Know and apply concepts that explain the composition and structure of the universe and Earth's place in it.

12.F.2b. Explain the apparent motion of the sun and stars.

Student Edition: pages 54, 55, 56, 57

Teacher's Guide: pages 22, 23

Skills Handbook: pages 21, 22

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

F. Know and apply concepts that explain the composition and structure of the universe and Earth's place in it. 12.F.2c. Identify easily recognizable star patterns (e.g., the Big Dipper, constellations).

12.F.2c. Identify easily recognizable star patterns (e.g.,

Student Edition: page 153

Teacher's Guide: pages 60, 61

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

A. Know and apply the accepted practices of science.

13.A.2a. Demonstrate ways to avoid injury when conducting science activities (e.g., wearing goggles, fire extinguisher use).

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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A. Know and apply the accepted practices of science.

13.A.2b. Explain why similar investigations may not produce similar results.

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

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

A. Know and apply the accepted practices of science.

13.A.2c. Explain why keeping accurate and detailed records is important.

Student Edition: pages 8, 9, 10, 11, 12, 13, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 42, 43, 44, 45, 46, 47, 174, 175, 176, 177, 178, 179

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Skills Handbook: pages 3, 4, 9, 10, 11, 12, 13, 14, 17, 18, 69, 70

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

B. Know and apply concepts that describe the interaction between science, technology and society.

13.B.2a. Explain how technology is used in science for a variety of purposes (e.g., sample collection, storage and treatment; measurement; data collection, storage and retrieval; communication of information).

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

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

B. Know and apply concepts that describe the interaction between science, technology and society.

13.B.2b. Describe the effects on society of scientific and technological innovations (e.g., antibiotics, steam engine, digital computer).

Student Edition: pages 50, 51, 52, 53, 72, 73, 74, 75, 76, 77, 126, 127, 128, 129, 130, 131, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 162, 163, 164, 165, 194, 195, 196, 197

Teacher's Guide: pages 20, 21, 30, 31, 52, 53, 58, 59, 60, 61, 64, 65, 78, 79

Skills Handbook: pages 19, 20, 29, 30, 51, 52, 57, 58, 59, 60, 63, 64, 77, 78

B. Know and apply concepts that describe the interaction between science, technology and society.

13.B.2c. Identify and explain ways that science and technology influence the lives and careers of people.

Student Edition: pages 38, 39, 40, 41, 50, 51, 52, 53, 114, 115, 116, 117, 118, 119, 126, 127, 128, 129, 130, 131, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 162, 163, 164, 165, 194, 195, 196, 197

Teacher's Guide: pages 16, 17, 20, 21, 48, 49, 52, 53, 58, 59, 60, 61, 64, 65, 78, 79

Skills Handbook: pages 15, 16, 19, 20, 47, 48, 51, 52, 57, 58, 59, 60, 63, 64, 77, 78

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

B. Know and apply concepts that describe the interaction between science, technology and society.

13.B.2d. Compare the relative effectiveness of reducing, reusing and recycling in actual situations.

Student Edition: pages 14, 15, 16, 17, 108, 109, 110, 111, 112, 113, 154, 155, 156, 157, 158, 159, 180, 181, 182, 183

Teacher's Guide: pages 6, 7, 46, 47, 62, 63, 72, 73

Skills Handbook: pages 5, 6, 45, 46, 61, 62, 71, 72

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

B. Know and apply concepts that describe the interaction between science, technology and society.

13.B.2e. Identify and explain ways that technology changes ecosystems (e.g., dams, highways, buildings, communication networks, power plants).

Student Edition: pages 62, 63, 64, 65, 66, 67, 104, 105, 106, 107, 198, 199, 200, 201

Teacher's Guide: pages 26, 27, 44, 45, 80, 81

Skills Handbook: pages 25, 26, 43, 44, 79, 80

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

B. Know and apply concepts that describe the interaction between science, technology and society.

13.B.2f. Analyze how specific personal and societal choices that humans make affect local, regional and global ecosystems (e.g., lawn and garden care, mass transit).

Student Edition: pages 14, 15, 16, 17, 62, 63, 64, 65, 66, 67, 72, 73, 74, 75, 76, 77, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 154, 155, 156, 157, 158, 159, 166, 167, 168, 169, 180, 181, 182, 183, 198, 199, 200, 201

Teacher's Guide: pages 6, 7, 26, 27, 30, 31, 44, 45, 46, 47, 62, 63, 66, 67, 72, 73, 80, 81

Skills Handbook: pages 5, 6, 25, 26, 29, 30, 43, 44, 45, 46, 61, 62, 65, 66, 71, 72, 79, 80

SRA Skills Handbook: Using Science

correlation to

Illinois Learning Standards: Science: Late Elementary Grade 5

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

A. Know and apply the concepts, principles, and processes of scientific inquiry.

11.A.2a. Formulate questions on a specific science topic and choose the steps needed to answer the questions.

Student Edition: pages 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

Teacher's Guide: pages 8, 9, 12, 13, 14, 15, 16, 17, 18, 19

Skills Workbook: pages 7, 8, 11, 12, 13, 14, 15, 16, 17, 18

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

A. Know and apply the concepts, principles, and processes of scientific inquiry.

11.A.2b. Collect data for investigations using scientific process skills, including observing, estimating, and measuring. **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

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Skills Workbook: pages 3, 4, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 33, 34, 39, 40

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

A. Know and apply the concepts, principles, and processes of scientific inquiry.

11.A.2c. Construct charts and visualizations to display data.

Student Edition: pages 4, 5, 6, 7, 8, 9, 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, 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 2, 3, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 34, 35, 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, 13, 14, 15, 16, 17, 18, 19, 20, 21, 33, 34, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

A. Know and apply the concepts, principles, and processes of scientific inquiry.

11.A.2d. Use data to produce reasonable explanations.

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

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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

A. Know and apply the concepts, principles, and processes of scientific inquiry.

11.A.2e. Report and display the results of individual and group investigations.

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

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State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

B. Know and apply the concepts, principles and processes of technological design.

11.B.2a. Identify a design problem and propose possible solutions.

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

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

B. Know and apply the concepts, principles and processes of technological design.

11.B.2b. Develop a plan, design and procedure to address the problem identifying constraints (e.g., time, materials, technology).

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

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

B. Know and apply the concepts, principles and processes of technological design.

11.B.2c. Build a prototype of the design using available tools and materials.

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

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

B. Know and apply the concepts, principles and processes of technological design.

11.B.2d. Test the prototype using suitable instruments, techniques and quantitative measurements to record data.

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

B. Know and apply the concepts, principles and processes of technological design.

11.B,2e. Assess test results and the effectiveness of the design using given criteria and noting possible sources of error.

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

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

B. Know and apply the concepts, principles and processes of technological design.

11.B.2f. Report test design, test process and test results.

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

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

A. Know and apply concepts that explain how living things function, adapt and change.

12.A.2a. Describe simple life cycles of plants and animals and the similarities and differences in their offspring.

Student Edition: pages 18, 19, 20, 21

Teacher's Guide: pages 8, 9

Skills Workbook: pages 7, 8

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

A. Know and apply concepts that explain how living things function, adapt and change.

12.A.2b. Categorize features as either inherited or learned (e.g., flower color or eye color is inherited; language is learned).

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

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

B. Know and apply concepts that describe how living things interact with each other and with their environment.

12.B.2a. Describe relationships among various organisms in their environments (e.g., predator/prey, parasite/host, food chains and food webs).

Student Edition: pages 18, 19, 20, 21, 76, 77, 78, 79, 116, 117, 118, 119, 174, 175, 176, 177, 194, 195, 196, 197, 198, 199, 200, 201

Teacher's Guide: pages 8, 9, 32, 33, 48, 49, 70, 71, 78, 79, 80, 81

Skills Workbook: pages 7, 8, 31, 32, 47, 48, 69, 70, 77, 78, 79, 80

B. Know and apply concepts that describe how living things interact with each other and with their environment.

12.B.2b. Identify physical features of plants and animals that help them live in different environments (e.g., specialized teeth for eating certain foods, thorns for protection, insulation for cold temperature).

Student Edition: pages 38, 39, 40, 41, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 86, 87, 88, 89, 96, 97, 98, 99, 100, 101, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197

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Skills Workbook: pages 15, 16, 29, 30, 31, 32, 35, 36, 39, 40, 45, 46, 47, 48, 75, 76, 77, 78

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

C. Know and apply concepts that describe properties of matter and energy and the interactions between them.

12.C.2a. Describe and compare types of energy including light, heat, sound, electrical and mechanical.

Student Edition: pages 66, 67, 68, 69, 106, 107, 108, 109

Teacher's Guide: pages 28, 29, 44, 45

Skills Workbook: pages 27, 28, 43, 44

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

C. Know and apply concepts that describe properties of matter and energy and the interactions between them.

12.C.2b. Describe and explain the properties of solids, liquids, and gases.

Student Edition: pages 10, 11, 12, 13, 42, 43, 44, 45, 46, 47

Teacher's Guide: pages 4, 5, 18, 19

Skills Workbook: pages 3, 4, 17, 18

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

D. Know and apply concepts that describe force and motion and the principles that explain them.

12.D.2a. Explain constant, variable and periodic motions.

Student Edition: pages 26, 27, 28, 29, 30, 31, 136, 137, 138, 139, 140, 141, 166, 167, 168, 169

Teacher's Guide: pages 12, 13, 56, 57, 66, 67

Skills Workbook: pages 11, 12, 55, 56, 65, 66

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

D. Know and apply concepts that describe force and motion and the principles that explain them.

12.D.2b. Demonstrate and explain ways that forces cause actions and reactions (e.g., magnets attracting and repelling; objects falling, rolling and bouncing).

Student Edition: pages 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 54, 55, 56, 57, 136, 137, 138, 139, 140, 141

Teacher's Guide: pages 10, 11, 12, 13, 22, 23, 56, 57

Skills Workbook: pages 9, 10, 11, 12, 21, 22, 55, 56

E. Know and apply concepts that describe the features and processes of the Earth and its resources.

12.E.2a. Identify and explain natural cycles of the Earth's land, water and atmosphere (e.g., rock cycle, water cycle, weather patterns).

Student Edition: pages 4, 5, 6, 7, 8, 9

Teacher's Guide: pages 2, 3

Skills Workbook: pages 1, 2

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

E. Know and apply concepts that describe the features and processes of the Earth and its resources.

12.E.2b. Describe ad explain short-term and long-term interactions on the Earth's components (e.g., earthquakes, types of erosion).

Student Edition: pages 32, 33, 34, 35, 36, 37, 62, 63, 64, 65, 166, 167, 168, 169

Teacher's Guide: pages 14, 15, 26, 27, 66, 67

Skills Workbook: pages 13, 14, 25, 26, 65, 66

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

E. Know and apply concepts that describe the features and processes of the Earth and its resources.

12.E.2c. Identify and classify recyclable materials.

Student Edition: pages 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 178, 179, 180, 181

Teacher's Guide: pages 50, 51, 52, 53, 72, 73

Skills Workbook: pages 49, 50, 51, 52, 71, 72

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

F. Know and apply concepts that explain the composition and structure of the universe and Earth's place in it.

12.F.2a. Identify and explain natural cycles and patterns in the solar system (e.g., order of the planets; moon phases; seasons as related to Earth's tilt, one's latitude, and where Earth is in its yearly orbit around the sun).

Student Edition: pages 102, 103, 104, 105

Teacher's Guide: pages 42, 43

Skills Workbook: pages 41, 42

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

F. Know and apply concepts that explain the composition and structure of the universe and Earth's place in it.

12.F.2b. Explain the apparent motion of the sun and stars.

Student Edition: pages 102, 103, 104, 105

Teacher's Guide: pages 42, 43

Skills Workbook: pages 41, 42

F. Know and apply concepts that explain the composition and structure of the universe and Earth's place in it.

12.F.2c. Identify easily recognizable star patterns (e.g., the Big Dipper, 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

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

A. Know and apply the accepted practices of science.

13.A.2a. Demonstrate ways to avoid injury when conducting science activities (e.g., wearing goggles, fire extinguisher use).

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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State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

A. Know and apply the accepted practices of science.

13.A.2b. Explain why similar investigations may not produce similar results.

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

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

A. Know and apply the accepted practices of science.

13.A.2c. Explain why keeping accurate and detailed records is important.

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

B. Know and apply concepts that describe the interaction between science, technology and society.

13.B.2a. Explain how technology is used in science for a variety of purposes (e.g., sample collection, storage and treatment; measurement; data collection, storage and retrieval; communication of information).

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

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

B. Know and apply concepts that describe the interaction between science, technology and society.

13.B.2b. Describe the effects on society of scientific and technological innovations (e.g., antibiotics, steam engine, digital computer).

Student Edition: pages 32, 33, 34, 35, 36, 37, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 90, 91, 92, 93, 106, 107, 108, 109, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 182, 183, 184, 185, 186, 187

Teacher's Guide: pages 14, 15, 28, 29, 30, 31, 38, 39, 44, 45, 52, 53, 54, 55, 56, 57, 60, 61, 62, 63, 74, 75

Skills Workbook: pages 13, 14, 27, 28, 29, 30, 37, 38, 43, 44, 51, 52, 53, 54, 55, 56, 59, 60, 61, 62, 73, 74

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

B. Know and apply concepts that describe the interaction between science, technology and society.

13.B.2c. Identify and explain ways that science and technology influence the lives and careers of people.

Student Edition: pages 32, 33, 34, 35, 36, 37, 58, 59, 60, 61, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 90, 91, 92, 93, 106, 107, 108, 109, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 148, 149, 150, 151, 152, 153, 182, 183, 184, 185, 186, 187

Teacher's Guide: pages 14, 15, 24, 25, 28, 29, 30, 31, 38, 39, 44, 45, 52, 53, 54, 55, 56, 57, 60, 61, 74, 75

Skills Workbook: pages 13, 14, 23, 24, 27, 28, 29, 30, 37, 38, 43, 44, 51, 52, 53, 54, 55, 56, 59, 60, 73, 74

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

B. Know and apply concepts that describe the interaction between science, technology and society.

13.B.2d. Compare the relative effectiveness of reducing, reusing and recycling in actual situations.

Student Edition: pages 32, 33, 34, 35, 36, 37, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 178, 179, 180, 181

Teacher's Guide: pages 14, 15, 50, 51, 52, 53, 72, 73

Skills Workbook: pages 13, 14, 49, 50, 51, 52, 71, 72

B. Know and apply concepts that describe the interaction between science, technology and society.

13.B.2e. Identify and explain ways that technology changes ecosystems (e.g., dams, highways, buildings, communication networks, power plants).

Student Edition: pages 32, 33, 34, 35, 36, 37, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 178, 179, 180, 181

Teacher's Guide: pages 14, 15, 30, 31, 32, 33, 34, 35, 50, 51, 52, 53, 72, 73

Skills Workbook: pages 13, 14, 29, 30, 31, 32, 33, 34, 49, 50, 51, 52, 71, 72

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

B. Know and apply concepts that describe the interaction between science, technology and society.

13.B.2f. Analyze how specific personal and societal choices that humans make affect local, regional and global ecosystems (e.g., lawn and garden care, mass transit).

Student Edition: pages 32, 33, 34, 35, 36, 37, 62, 63, 64, 65, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 178, 179, 180, 181, 198, 199, 200, 201

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Skills Workbook: pages 13, 14, 25, 26, 31, 32, 33, 34, 49, 50, 51, 52, 71, 72, 79, 80

SRA Skills Handbook: Using Science

correlation to

Illinois Learning Standards: Science: Late Elementary Grade 6

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

A. Know and apply the concepts, principles, and processes of scientific inquiry.

11.A.2a. Formulate questions on a specific science topic and choose the steps needed to answer the questions.

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

Teacher's Guide: pages 8, 9, 12, 13, 14, 15, 18, 19

Skills Workbook: pages 7, 8, 11, 12, 13, 14, 17, 18

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

A. Know and apply the concepts, principles, and processes of scientific inquiry.

11.A.2b. Collect data for investigations using scientific process skills, including observing, estimating, and measuring. 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, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 50, 51, 52, 53, 78, 79, 80, 81, 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 4, 5, 6, 7, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 34, 35, 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 3, 4, 5, 6, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 33, 34, 35, 36, 37, 38, 59, 60, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

A. Know and apply the concepts, principles, and processes of scientific inquiry.

11.A.2c. Construct charts and visualizations to display data.

Student Edition: pages 2, 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

A. Know and apply the concepts, principles, and processes of scientific inquiry.

11.A.2d. Use data to produce reasonable explanations.

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

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

A. Know and apply the concepts, principles, and processes of scientific inquiry.

11.A.2e. Report and display the results of individual and group investigations.

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

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

B. Know and apply the concepts, principles and processes of technological design.

11.B.2a. Identify a design problem and propose possible solutions.

Student Edition: pages 32, 33, 34, 35, 36, 37, 92, 93, 94, 95, 96, 97

Teacher's Guide: pages 14, 15, 40, 41

Skills Workbook: pages 13, 14, 39, 40

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

B. Know and apply the concepts, principles and processes of technological design.

11.B.2b. Develop a plan, design and procedure to address the problem identifying constraints (e.g., time, materials, technology).

Student Edition: pages 32, 33, 34, 35, 36, 37, 92, 93, 94, 95, 96, 97

Teacher's Guide: pages 14, 15, 40, 41

Skills Workbook: pages 13, 14, 39, 40

B. Know and apply the concepts, principles and processes of technological design.

11.B.2c. Build a prototype of the design using available tools and materials.

Student Edition: pages 32, 33, 34, 35, 36, 37, 92, 93, 94, 95, 96, 97

Teacher's Guide: pages 14, 15, 40, 41

Skills Workbook: pages 13, 14, 39, 40

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

B. Know and apply the concepts, principles and processes of technological design.

11.B.2d. Test the prototype using suitable instruments, techniques and quantitative measurements to record data.

Student Edition: pages 32, 33, 34, 35, 36, 37, 92, 93, 94, 95, 96, 97

Teacher's Guide: pages 14, 15, 40, 41

Skills Workbook: pages 13, 14, 39, 40

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

B. Know and apply the concepts, principles and processes of technological design.

11.B.2e. Assess test results and the effectiveness of the design using given criteria and noting possible sources of error.

Student Edition: pages 32, 33, 34, 35, 36, 37, 92, 93, 94, 95, 96, 97

Teacher's Guide: pages 14, 15, 40, 41

Skills Workbook: pages 13, 14, 39, 40

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

B. Know and apply the concepts, principles and processes of technological design.

11.B.2f. Report test design, test process and test results.

Student Edition: pages 32, 33, 34, 35, 36, 37, 92, 93, 94, 95, 96, 97

Teacher's Guide: pages 14, 15, 40, 41

Skills Workbook: pages 13, 14, 39, 40

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

A. Know and apply concepts that explain how living things function, adapt and change.

12.A.2a. Describe simple life cycles of plants and animals and the similarities and differences in their offspring.

A. Know and apply concepts that explain how living things function, adapt and change.

12.A.2b. Categorize features as either inherited or learned (e.g., flower color or eye color is inherited; language is learned).

Student Edition: pages 22, 23, 24, 25, 38, 39, 40, 41

Teacher's Guide: pages 10, 11, 16, 17

Skills Workbook: pages 9, 10, 15, 16

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

B. Know and apply concepts that describe how living things interact with each other and with their environment.

12.B.2a. Describe relationships among various organisms in their environments (e.g., predator/prey, parasite/host, food chains and food webs).

Student Edition: pages 50, 51, 52, 53, 58, 59, 60, 61, 92, 93, 94, 95, 96, 97, 104, 105, 106, 107, 146, 147, 148, 149, 150, 151, 182, 183, 184, 185, 192, 193, 194, 195

Teacher's Guide: pages 20, 21, 24, 25, 40, 41, 44, 45, 60, 61, 74, 75, 78, 79

Skills Workbook: pages 19, 20, 23, 24, 39, 40, 43, 44, 59, 60, 73, 74, 77, 78

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

B. Know and apply concepts that describe how living things interact with each other and with their environment.

12.B.2b. Identify physical features of plants and animals that help them live in different environments (e.g., specialized teeth for eating certain foods, thorns for protection, insulation for cold temperature).

Student Edition: pages 42, 43, 44, 45, 46, 47, 58, 59, 60, 61, 92, 93, 94, 95, 96, 97

Teacher's Guide: pages 18, 19, 24, 25, 40, 41

Skills Workbook: pages 17, 18, 23, 24, 39, 40

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

C. Know and apply concepts that describe properties of matter and energy and the interactions between them.

12.C.2a. Describe and compare types of energy including light, heat, sound, electrical and mechanical.

Student Edition: pages 32, 33, 34, 35, 36, 37, 62, 63, 64, 65, 178, 179, 180, 181, 186, 187, 188, 189, 190, 191

Teacher's Guide: pages 14, 15, 26, 27, 72, 73, 76, 77

Skills Workbook: pages 13, 14, 25, 26, 71, 72, 75, 76

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

C. Know and apply concepts that describe properties of matter and energy and the interactions between them.

12.C.2b. Describe and explain the properties of solids, liquids, and gases.

Student Edition: pages 14, 15, 16, 17, 18, 19, 20, 21, 54, 55, 56, 57, 166, 167, 168, 169

Teacher's Guide: pages 6, 7, 8, 9, 22, 23, 66, 67

Skills Workbook: pages 5, 6, 7, 8, 21, 22, 65, 66

D. Know and apply concepts that describe force and motion and the principles that explain them.

12.D.2a. Explain constant, variable and periodic motions.

Student Edition: pages 140, 141, 142, 143, 144, 145

Teacher's Guide: pages 58, 59

Skills Workbook: pages 57, 58

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

D. Know and apply concepts that describe force and motion and the principles that explain them.

12.D.2b. Demonstrate and explain ways that forces cause actions and reactions (e.g., magnets attracting and repelling; objects falling, rolling and bouncing).

Student Edition: pages 140, 141, 142, 143, 144, 145

Teacher's Guide: pages 58, 59

Skills Workbook: pages 57, 58

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

E. Know and apply concepts that describe the features and processes of the Earth and its resources.

12.E.2a. Identify and explain natural cycles of the Earth's land, water and atmosphere (e.g., rock cycle, water cycle, weather patterns).

Student Edition: pages 160, 161, 162, 163, 164, 165, 174, 175, 176, 177

Teacher's Guide: pages 64, 65, 70, 71

Skills Workbook: pages 63, 64, 69, 70

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

E. Know and apply concepts that describe the features and processes of the Earth and its resources.

12.E.2b. Describe and explain short-term and long-term interactions on the Earth's components (e.g., earthquakes, types of erosion).

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

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

E. Know and apply concepts that describe the features and processes of the Earth and its resources.

12.E.2c. Identify and classify recyclable materials.

Student Edition: pages 82, 83, 84, 85, 86, 87, 152, 153, 154, 155, 156, 157

Teacher's Guide: pages 36, 37, 62, 63

Skills Workbook: pages 35, 36, 61, 62

F. Know and apply concepts that explain the composition and structure of the universe and Earth's place in it. 12.F.2a. Identify and explain natural cycles and patterns in the solar system (e.g., order of the planets; moon phases; seasons as related to Earth's tilt, one's latitude, and where Earth is in its yearly orbit around the sun).

Student Edition: pages 170, 171, 172, 173

Teacher's Guide: pages 68, 69

Skills Workbook: pages 67, 68

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

F. Know and apply concepts that explain the composition and structure of the universe and Earth's place in it.

12.F.2b. Explain the apparent motion of the sun and stars.

Student Edition: pages 66, 67, 68, 69

Teacher's Guide: pages 28, 29

Skills Workbook: pages 27, 28

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

F. Know and apply concepts that explain the composition and structure of the universe and Earth's place in it. 12.F.2c. Identify easily recognizable star patterns (e.g., the Big Dipper, constellations).

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

A. Know and apply the accepted practices of science.

13.A.2a. Demonstrate ways to avoid injury when conducting science activities (e.g., wearing goggles, fire extinguisher use).

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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A. Know and apply the accepted practices of science.

13.A.2b. Explain why similar investigations may not produce similar results.

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

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

A. Know and apply the accepted practices of science.

13.A.2c. Explain why keeping accurate and detailed records is important.

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

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

B. Know and apply concepts that describe the interaction between science, technology and society.

13.B.2a. Explain how technology is used in science for a variety of purposes (e.g., sample collection, storage and treatment; measurement; data collection, storage and retrieval; communication of information).

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

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Skills Workbook: pages 3, 4, 5, 6, 9, 10, 13, 14, 17, 18, 19, 20, 55, 56, 67, 68

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

B. Know and apply concepts that describe the interaction between science, technology and society.

13.B.2b. Describe the effects on society of scientific and technological innovations (e.g., antibiotics, steam engine, digital computer).

Student Edition: pages 32, 33, 34, 35, 36, 37, 62, 63, 64, 65, 66, 67, 68, 69, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 186, 187, 188, 189, 190, 191

Teacher's Guide: pages 14, 15, 26, 27, 28, 29, 54, 55, 56, 57, 58, 59, 76, 77

Skills Workbook: pages 13, 14, 25, 26, 27, 28, 53, 54, 55, 56, 57, 58, 75, 76

B. Know and apply concepts that describe the interaction between science, technology and society.

13.B.2c. Identify and explain ways that science and technology influence the lives and careers of people.

Student Edition: pages 62, 63, 64, 65, 66, 67, 68, 69, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 186, 187, 188, 189, 190, 191

Teacher's Guide: pages 26, 27, 28, 29, 54, 55, 56, 57, 58, 59, 76, 77

Skills Workbook: pages 25, 26, 27, 28, 53, 54, 55, 56, 57, 58, 75, 76

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

B. Know and apply concepts that describe the interaction between science, technology and society.

13.B.2d. Compare the relative effectiveness of reducing, reusing and recycling in actual situations.

Student Edition: pages 82, 83, 84, 85, 86, 87, 152, 153, 154, 155, 156, 157

Teacher's Guide: pages 36, 37, 62, 63

Skills Workbook: pages 35, 36, 61, 62

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

B. Know and apply concepts that describe the interaction between science, technology and society.

13.B.2e. Identify and explain ways that technology changes ecosystems (e.g., dams, highways, buildings, communication networks, power plants).

Student Edition: pages 26, 27, 28, 29, 30, 31, 82, 83, 84, 85, 86, 87, 108, 109, 110, 111, 112, 113

Teacher's Guide: pages 12, 13, 36, 37, 46, 47

Skills Workbook: pages 11, 12, 35, 36, 45, 46

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

B. Know and apply concepts that describe the interaction between science, technology and society.

13.B.2f. Analyze how specific personal and societal choices that humans make affect local, regional and global ecosystems (e.g., lawn and garden care, mass transit).

Student Edition: pages 26, 27, 28, 29, 30, 31, 58, 59, 60, 61, 82, 83, 84, 85, 86, 87, 92, 93, 94, 95, 96, 97, 108, 109, 110, 111, 112, 113

Teacher's Guide: pages 12, 13, 24, 25, 36, 37, 40, 41, 46, 47

Skills Workbook: pages 11, 12, 23, 24, 35, 36, 39, 40, 45, 46

SRA Skills Handbook: Using Science

correlation to

Illinois Learning Standards: Science: Middle/Junior High School Grade 6

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

A. Know and apply the concepts, principles, and processes of scientific inquiry.

11.A.3a. Formulate hypotheses that can be tested by collecting data.

Student Edition: pages 18, 19, 20, 21, 32, 33, 34, 35, 36, 37, 42, 43, 44, 45, 46, 47

Teacher's Guide: pages 8, 9, 14, 15, 18, 19

Skills Workbook: pages 7, 8, 13, 14, 17, 18

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

A. Know and apply the concepts, principles, and processes of scientific inquiry.

11.A.3b. Conduct scientific experiments that control all but one variable.

Student Edition: pages 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37

Teacher's Guide: pages 12, 13, 14, 15

Skills Workbook: pages 11, 12, 13, 14

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

A. Know and apply the concepts, principles, and processes of scientific inquiry.

11.A.3c. Collect and record data accurately using consistent measuring and recording techniques and media.

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

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

A. Know and apply the concepts, principles, and processes of scientific inquiry.

11.A.3d. Explain the existence of unexpected results in a data set.

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

A. Know and apply the concepts, principles, and processes of scientific inquiry.

11.A.3e. Use data manipulation tools and quantitative (e.g., mean, mode, simple equations) and representational methods (e.g., simulations, image processing) to analyze measurements.

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

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

A. Know and apply the concepts, principles, and processes of scientific inquiry.

11.A.3f. Interpret and represent results of analysis to produce findings.

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

Teacher's Guide: pages 10, 11, 12, 13, 14, 15, 18, 19, 22, 23

Skills Workbook: pages 9, 10, 11, 12, 13, 14, 17, 28, 21, 22

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

A. Know and apply the concepts, principles, and processes of scientific inquiry.

11.A.3g. Report and display the process and results of a scientific investigation.

Student Edition: pages 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

Teacher's Guide: pages 8, 9, 10, 11, 12, 13, 14, 15, 18, 19

Skills Workbook: pages 7, 8, 9, 10, 11, 12, 13, 14, 17, 18

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

B. Know and apply the concepts, principles and processes of technological design.

11.B.3a. Identify an actual design problem and establish criteria for determining the success of a solution.

Student Edition: pages 32, 33, 34, 35, 36, 37, 92, 93, 94, 95, 96, 97

Teacher's Guide: pages 14, 15, 40, 41

Skills Workbook: pages 13, 14, 39, 40

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

B. Know and apply the concepts, principles and processes of technological design.

11.B.3b. Sketch, propose and compare design solutions to the problem considering available materials, tools, cost effectiveness and safety.

Student Edition: pages 32, 33, 34, 35, 36, 37, 92, 93, 94, 95, 96, 97

Teacher's Guide: pages 14, 15, 40, 41

Skills Workbook: pages 13, 14, 39, 40

B. Know and apply the concepts, principles and processes of technological design.

11.B.3c. Select the most appropriate design and build a prototype or simulation.

Student Edition: pages 32, 33, 34, 35, 36, 37, 92, 93, 94, 95, 96, 97

Teacher's Guide: pages 14, 15, 40, 41

Skills Workbook: pages 13, 14, 39, 40

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

B. Know and apply the concepts, principles and processes of technological design.

11.B.3d. Test the prototype using available materials, instruments and technology and record the data.

Student Edition: pages 32, 33, 34, 35, 36, 37, 92, 93, 94, 95, 96, 97

Teacher's Guide: pages 14, 15, 40, 41

Skills Workbook: pages 13, 14, 39, 40

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

B. Know and apply the concepts, principles and processes of technological design.

11.B.3e. Evaluate the test results based on established criteria, note sources of error and recommend improvements.

Student Edition: pages 32, 33, 34, 35, 36, 37, 92, 93, 94, 95, 96, 97

Teacher's Guide: pages 14, 15, 40, 41

Skills Workbook: pages 13, 14, 39, 40

State Goal 11. Understand the process of scientific inquiry and technological design to investigate questions, conduct experiments and solve problems.

B. Know and apply the concepts, principles and processes of technological design.

11.B.3f. Using available technology, report the relative success of the design based on the test results and criteria.

Student Edition: pages 32, 33, 34, 35, 36, 37, 92, 93, 94, 95, 96, 97

Teacher's Guide: pages 14, 15, 40, 41

Skills Workbook: pages 13, 14, 39, 40

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

A. Know and apply concepts that explain how living things function, adapt and change.

12.A.3a. Explain how cells function as "building blocks" of organisms and describe the requirements for cells to live.

A. Know and apply concepts that explain how living things function, adapt and change.

12.A.3b. Compare characteristics of organisms produced from a single parent with those of organisms produced by two parents.

Student Edition: pages 22, 23, 24, 25

Teacher's Guide: pages 10, 11

Skills Workbook: pages 9, 10

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

A. Know and apply concepts that explain how living things function, adapt and change.

12.A.3c. Compare and contrast how different forms and structures reflect different functions (e.g., similarities and differences among animals that fly, walk or swim; structures of plant cells and animal cells).

Student Edition: pages 42, 43, 44, 45, 46, 47, 58, 59, 60, 61, 92, 93, 94, 95, 96, 97

Teacher's Guide: pages 18, 19, 24, 25, 40, 41

Skills Workbook: pages 17, 18, 23, 24, 39, 40

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

B. Know and apply concepts that describe how living things interact with each other and with their environment.

12.B.3a. Identify and classify biotic and abiotic factors in an environment that affect population density, habitat and placement of organisms in an energy pyramid.

Student Edition: pages 42, 43, 44, 45, 46, 47, 58, 59, 60, 61, 70, 71, 72, 73, 92, 93, 94, 95, 96, 97, 104, 105, 106, 107, 160, 161, 162, 163, 164, 165, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201

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Skills Workbook: pages 17, 18, 23, 24, 29, 30, 39, 40, 43, 44, 63, 64, 77, 78, 79, 80

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

B. Know and apply concepts that describe how living things interact with each other and with their environment.

12.B.3b. Compare and assess features of organisms for their adaptive, competitive and survival potential (e.g., appendages, reproductive rates, camouflage, defensive structures).

Student Edition: pages 42, 43, 44, 45, 46, 47, 58, 59, 60, 61, 92, 93, 94, 95, 96, 97

Teacher's Guide: pages 18, 19, 24, 25, 40, 41

Skills Workbook: pages 17, 18, 23, 24, 39, 40

C. Know and apply concepts that describe properties of matter and energy and the interactions between them.

12.C.3a. Explain interactions of energy with matter including changes of state and conservation of mass and energy.

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

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

C. Know and apply concepts that describe properties of matter and energy and the interactions between them.

12.C.3b. Model and describe the chemical and physical characteristics of matter (e.g., atoms, molecules, elements, compounds, mixtures).

Student Edition: pages 18, 19, 20, 21, 54, 55, 56, 57, 166,1 67, 168, 169

Teacher's Guide: pages 8, 9, 22, 23, 66, 67

Skills Workbook: pages 7, 8, 21, 22, 65, 66

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

D. Know and apply concepts that describe force and motion and the principles that explain them.

12.D.3a. Explain and demonstrate how forces affect motion (e.g., action/reaction, equilibrium conditions, free-falling objects).

Student Edition: pages 140, 141, 142, 143, 144, 145

Teacher's Guide: pages 58, 59

Skills Workbook: pages 57, 58

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

D. Know and apply concepts that describe force and motion and the principles that explain them.

12.D.3b. Explain the factors that affect the gravitational forces on objects (e.g., changes in mass, distance).

Student Edition: pages 140, 141, 142, 143, 144, 145

Teacher's Guide: pages 58, 59

Skills Workbook: pages 57, 58

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

E. Know and apply concepts that describe the features and processes of the Earth and its resources.

12.E.3a. Analyze and explain large-scale dynamic forces, events and processes that affect the Earth's land, water and atmospheric systems (e.g., jetstream, hurricanes, plate tectonics).

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

E. Know and apply concepts that describe the features and processes of the Earth and its resources.

12.E.3b. Describe interactions between solid earth, oceans, atmospheres and organisms that have resulted in ongoing change of Earth (e.g., erosion, El Nino).

Student Edition: pages 26, 27, 28, 29, 30, 31, 160, 161, 162, 163, 164, 165

Teacher's Guide: pages 12, 13, 64, 65

Skills Workbook: pages 11, 12, 63, 64

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

E. Know and apply concepts that describe the features and processes of the Earth and its resources.

12.E.3c. Evaluate the biodegradability of renewable and nonrenewable natural resources.

Student Edition: pages 82, 83, 84, 85, 86, 87, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 152, 153, 154, 155, 156, 157

Teacher's Guide: pages 36, 37, 44, 45, 46, 47, 62, 63

Skills Workbook: pages 35, 36, 43, 44, 45, 46, 61, 62

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

F. Know and apply concepts that explain the composition and structure of the universe and Earth's place in it. 12.F.3a. Simulate, analyze and explain the effects of gravitational force in the solar system (e.g., orbital shape and speed, tides, spherical shapes of the planets and moons).

Student Edition: pages 170, 171, 172, 173

Teacher's Guide: pages 68, 69

Skills Workbook: pages 67, 68

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

F. Know and apply concepts that explain the composition and structure of the universe and Earth's place in it.

12.F.3b. Describe the organization and physical characteristics of the solar system (e.g., sun, planets, satellites, asteroids, comets).

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

State Goal 12. Understand the fundamental concepts, principles and interconnections of the life, physical and earth/science sciences.

F. Know and apply concepts that explain the composition and structure of the universe and Earth's place in it.

12.F.3c. Compare and contrast the sun as a star with other objects in the Milky Way Galaxy (e.g., nebulae, dust clouds, stars, black holes).

Student Edition: pages 170, 171, 172, 173

Teacher's Guide: pages 68, 69

Skills Workbook: pages 67, 68

A. Know and apply the accepted practices of science.

13.A.3a. Identify and reduce potential hazards in science activities (e.g., ventilation, handling chemicals).

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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State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

A. Know and apply the accepted practices of science.

13.A.3b. Analyze historical and contemporary cases in which the work of science has been affected by both valid and biased scientific practices.

Student Edition: pages 58, 59, 60, 61

Teacher's Guide: pages 24, 25

Skills Workbook: pages 23, 24

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

A. Know and apply the accepted practices of science.

13.A.3c. Explain what is similar and different about observational and experimental investigations.

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

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Skills Workbook: pages 1, 2, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 33, 34

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

B. Know and apply concepts that describe the interaction between science, technology and society.

13.B.3a. Identify and explain ways that scientific knowledge and economics drive technological development.

Student Edition: pages 32, 33, 34, 35, 36, 37, 62, 63, 64, 65, 66, 67, 68, 69, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 186, 187, 188, 189, 190, 191

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Skills Workbook: pages 13, 14, 25, 26, 27, 28, 53, 54, 55, 56, 57, 58, 75, 76

B. Know and apply concepts that describe the interaction between science, technology and society.

13.B.3b. Identify important contributions to science and technology that have been made by individuals and groups from various cultures.

Student Edition: pages 22, 23, 24, 25, 66, 67, 68, 69, 78, 79, 80, 81, 100, 101, 102, 103, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191

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Skills Workbook: pages 9, 10, 27, 28, 33, 34, 41, 42, 53, 54, 55, 56, 57, 58, 73, 74, 75, 76

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

B. Know and apply concepts that describe the interaction between science, technology and society.

13.B.3c. Describe how occupations use scientific and technological knowledge and skills.

Student Edition: pages 22, 23, 24, 25, 62, 63, 64, 65, 66, 67, 68, 69, 78, 79, 80, 81, 100, 101, 102, 103, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 170, 171, 172, 173, 174, 175, 176, 177, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191

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Skills Workbook: pages 9, 10, 25, 26, 27, 28, 33, 34, 41, 42, 53, 54, 55, 56, 57, 58, 67, 68, 69, 70, 73, 74, 75, 76

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

B. Know and apply concepts that describe the interaction between science, technology and society.

13.B.3d. Analyze the interaction of resource acquisition, technological development and ecosystems (e.g., diamond, coal or gold mining; deforestation).

Student Edition: pages 26, 27, 28, 29, 30, 31, 62, 63, 64, 65, 82, 83, 84, 85, 86, 87, 92, 93, 94, 95, 96, 97, 108, 109, 110, 111, 112, 113, 178, 179, 180, 181

Teacher's Guide: pages 12, 13, 26, 27, 36, 37, 40, 41, 46, 47, 72, 73

Skills Workbook: pages 11, 12, 25, 26, 35, 36, 39, 40, 45, 46, 71, 72

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

B. Know and apply concepts that describe the interaction between science, technology and society.

13.B.3e. Identify advantages and disadvantages of natural resource conservation and management programs.

Student Edition: pages 62, 63, 64, 65, 82, 83, 84, 85, 86, 87, 108, 109, 110, 111, 112, 113, 152, 153, 154, 155, 156, 157, 160, 161, 162, 163, 164, 165, 178, 179, 180, 181

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Skills Workbook: pages 25, 26, 35, 36, 45, 46, 61, 62, 63, 64, 71, 72

State Goal 13: Understand the relationships among science, technology and society in historical and contemporary contexts.

B. Know and apply concepts that describe the interaction between science, technology and society.

13.B.3f. Apply classroom-developed criteria to determine the effects of policies on local science and technology issues (e.g., energy consumption, landfills, water quality).

Student Edition: pages 58, 59, 60, 61, 62, 63, 64, 65, 82, 83, 84, 85, 86, 87, 92, 93, 94, 95, 96, 97, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 152, 153, 154, 155, 156, 157, 160, 161, 162, 163, 164, 165, 178, 179, 180, 181

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