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Building Blocks of Science™ 3D Correlation to McGraw-Hill California Wonders, Grades K–5

Building Blocks OF SCIENCE™ | 3D

California
Next Generation Science Standards
Kindergarten

Each performance expectation is coded in the following manner:

Grade Level	Discipline	Core Idea	Sub-Idea
K	LS	1	C

KINDERGARTEN SCIENCE			
K-LS1	**From Molecules to Organisms: Structure and Process**	**McGraw-Hill *California Wonders***	***Building Blocks of Science 3D***
K-LS1-1	Use observations to describe patterns of what plants and animals (including humans) need to survive.	**READING/WRITING WORKSHOP: Unit 5:** 20-21 **LEVELED READERS: Unit l, Week 3:** *See It Grow* (B); **Unit 5, Week l:** *My Garden* (A) *My Garden Grows* (O, EL) *The Mystery Seeds* (B) **Week 3:** *The Tree* (A) *Many Trees* (O, EL) *Our Apple Tree* (B) **SCIENCE WORKSTATION ACTIVITY CARDS:** 13, 15, 21 **TEACHER'S EDITION: Unit l:** T238; **Unit 5:** TO, T68, T74, T78, T93, T142, T150, T156, T160	***Living Things and Their Needs*** **TG:** L1 pgs. 30–42, SIS 1D; L2 pgs. 50–60, SIS 2B **LA:** 2B **SR:** pgs. 2–5 **Digital:** IWB: Living vs. Nonliving; What Do All Living Things Do? What Do Plants Need to Grow Well? SIM: Factors of Plant Growth Part 1
K-LSI.C	**Organization for Matter and Energy Flow in Organisms** • All animals need food in order to live and grow. They obtain their food from plants or from other animals. Plants need water and light to live and grow. (K-LS1-1)	**READING/WRITING WORKSHOP: Unit 7:** 34-35 **LEVELED READERS: Unit 7, Week l:** *Two Cubs* (A) **LITERATURE BIG BOOKS: Unit 2, Week 3:** *I Love Bugs!*; **Unit 5, Week l:** *My Garden* **Week 2:** *A Grand Old Tree* **Week 3:** *An Orange in January* **Unit 7, Week l:** *Zoo Borns* **Week 3:** *Bear Snores On;* **Unit 10, Week 3:** *Panda Kindergarten* **SCIENCE WORKSTATION ACTIVITY CARDS:** 13, 14, 15, 17, 21 **TEACHER'S EDITION: Unit l:** T134; **Unit 2:** T190, T208, T216; **Unit 5:** T44, T108-T109, T190-T191, T208, T216; **Unit 7:** T12, T26, T52, T60, T68, T75, T208, T248; **Unit 10:** T178, T192-T193	***Living Things and Their Needs*** **TG:** L1 pgs. 30–42, SIS 1D; L2 pgs. 50–60, SIS 2B **LA:** 2B **SR:** pgs. 2–5 **Digital:** IWB: Living vs. Nonliving; What Do All Living Things Do? What Do Plants Need to Grow Well? SIM: Factors of Plant Growth Part 1
K-ESS2	**Earth's Systems**	**McGraw-Hill *California Wonders***	***Building Blocks of Science 3D***
K-ESS2-1	Use and share observations of local weather conditions to describe patterns over time.	**READING/WRITING WORKSHOP: Unit 6:** 6-7 **SCIENCE WORKSTATION ACTIVITY CARDS:** 16, 17 **TEACHER'S EDITION: Unit 6:** T11	***Weather and Sky*** **TG:** L1 pgs. 32–42, SIS 1B, SIS 1D; L2 pgs. 52–68, SIS 2A, SIS 2B SIS 2C, SIS 2D, SIS 2E **SR**: pgs. 2–5, 6–10

			Digital: IWB: Our Ideas About Weather; Daytime Sky; Nighttime Sky; Comparing Daytime and Nighttime Skies; How Can I Describe the Weather? Daily Weather Observations; Weekly Weather Graph SIM: Daytime/Nighttime SIM: Precipitation; Cloud Cover, Wind Conditions
K-ESS2-2	Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.	**READING/WRITING WORKSHOP: Unit 7:** 34-35 **SCIENCE WORKSTATION ACTIVITY CARDS:** 21 **TEACHER'S EDITION: Unit 7:** T175	***Living Things and Their Needs*** **TG:** L3 pgs. 68–77, SIS 3B **LA:** 3B **SR**: pgs. 6–12
K-ESS2.D	**Weather and Climate** • Weather is the combination of sunlight, wind, snow or rain, and temperature in a particular region at a particular time. People measure these conditions to describe and record the weather and to notice patterns over time. (K-ESS2-1)	**READING/WRITING WORKSHOP: Unit 6:** 6-7, 8-15, 20-21 **LEVELED READERS: Unit 6, Week l:** *It Is Hot!* (A*) Little Bear* (O, EL) *Ant and Grasshopper* (B) **LITERATURE BIG BOOKS: Unit 6, Week l:** *Mama, Is It Summer Yet?* **Week 2:** *Rain* **SCIENCE WORKSTATION ACTIVITY CARDS:** 16, 17 **TEACHER'S EDITION: Unit 6:** T11, T12, T26-T27, T30-T31, T6O, T68, T74, T78, T92-T93, T94, TI42, T150, T160, T176	***Weather and Sky*** **TG:** L1 pgs. 32–42, SIS 1B, SIS 1D; L2 pgs. 52–68, SIS 2A, SIS, 2B SIS 2C, SIS 2D, SIS 2E **SR:** pgs. 2–5, 6–10 **Digital:** IWB: Our Ideas About Weather; Daytime Sky; Nighttime Sky, Comparing Daytime and Nighttime Skies; How Can I Describe the Weather? Daily Weather Observations; Weekly Weather Graph SIM: Daytime/Nighttime SIM: Precipitation; Cloud Cover, Wind Conditions

CACCSS40

KINDERGARTEN SCIENCE			
K-ESS2	**Earth's Systems**	**McGraw-Hill *California Wonders***	***Building Blocks of Science 3D***
K-ESS2.E	**Biogeology** • Plants and animals can change their environment. (K-ESS2-2)	**SCIENCE WORKSTATION ACTIVITY CARDS:** 21	***Living Things and Their Needs*** **TG:** L3 pgs. 68–77, SIS 3B; L4 pgs. 84–94 **LA:** 3B **SR:** pgs. 6–12, 13–14 **Digital:** IWB: Bessbugs and Pumpkin Plant Environments; How Do We Change the Environment? What Do All Living Things Do? SIM: Pollution
K-ESS3	**Earth and Human Activity**	**McGraw-Hill *California Wonders***	***Building Blocks of Science 3D***
K-ESS3-1	Use a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live.	**READING/WRITING WORKSHOP: Unit 7:** 34-35 **LEVELED READERS: Unit 5, Week 3:** *The Farmer* (A) **SCIENCE WORKSTATION ACTIVITY CARDS:** 13, 15 **TEACHER'S EDITION: Unit 5:** T224; **Unit 7:** T175	***Living Things and Their Needs*** **TG:** L3 pgs. 68–77, SIS 3B **LA:** 3B **SR:** pgs. 6–12
K-ESS3-2	Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather.	**SCIENCE WORKSTATION ACTIVITY CARDS:** 18	***Weather and Sky*** **TG:** L3 pgs. 86–98, SIS 3C **LA:** 3C **SR:** pgs. 10, 15 **Digital:** IWB: Dangerous Weather; Weather Safety; SIM: Rain Conditions
K-ESS3-3	Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.	**READING/WRITING WORKSHOP: Unit 10:** 34-35 **SCIENCE WORKSTATION ACTIVITY CARDS:** 30 **TEACHER'S EDITION: Unit 10:** T176-T177	***Living Things and Their Needs*** **TG:** L4 pgs. 84–94 **SR:** pgs. 13–14 **Digital:** IWB: Bessbugs and Pumpkin Plant Environments; How Do We Change the Environment?; What Do All Living Things Do? SIM: Pollution
K-ESS3.A	**Natural Resources** • Living things need water, air, and resources from the land, and they live in places that have the things they need. Humans use natural resources for everything they do. (K-ESS3-1)	**READING/WRITING WORKSHOP: Unit 9:** 32-33 **LEVELED READERS: Unit 9, Week 3:** *Look Where It is From* (A) *What's for Breakfast?* ((O,EL) *Nature at the Craft Fair* (B) **SCIENCE WORKSTATION ACTIVITY CARDS:** 13, 14, 15, 17, 21, 30 **TEACHER'S EDITION: Unit 9:** T174-T175, T224, T232, T238, T242	***Living Things and Their Needs*** **TG:** L2 pgs. 50–60, SIS 2B, L3 pgs. 68–77, SIS 3B, L4 pgs. 84–94 **LA:** 2B,3B **SR:** pgs. 2–5, 6–12, 13–14

			Digital: IWB: What Do All Living Things Do?; What Do Plants Need to Grow Well?; Bessbugs and Pumpkin Plant Environments; How Do We Change the Environment?; What Do All Living Things Do? SIM: Factors of Plant Growth Part 1 SIM: Pollution
K-ESS3.B	**Natural Hazards** • Some kinds of severe weather are more likely than others in a given region. Weather scientists forecast severe weather so that the communities can prepare for and respond to these events. (K-ESS3-2)	**LEVELED READERS: Unit 6, Week 2:** *The Rain* (A) *Weather Is Fun* ((O, EL) **Week 3:** *Bad Weather* (A) *Getting Ready* (O, EL) *The Storm* (B) **LITERATURE BIG BOOKS: Unit 6:, Week 3:** *Waiting Out in the Storm* **SCIENCE WORKSTATION ACTIVITY CARDS:** 18 **TEACHER'S EDITION: Unit 6:** T176, T224, T232, T238, T242	***Weather and Sky*** **TG:** L3 pgs. 86–98, SIS 3C **LA:** 3C **SR:** pgs. 10, 15 **Digital:** IWB: Dangerous Weather; Weather Safety SIM: Rain Conditions
K-ESS3.C	**Human Impacts on Earth Systems** • Things that people do to live comfortably can affect the world around them. But they can make choices that reduce their impacts on the land, water, air, and other living things. (secondary to K-ESS2-2), (K-ESS3-3)	**READING/WRITING WORKSHOP: Unit 10:** 34-35 **LEVELED READERS: Unit 10, Week 3:** *Help Clean Up* (A) *Let's Save the Earth* (O, EL) *Babysitters for Seals* (B) **SCIENCE WORKSTATION ACTIVITY CARDS**: 30 **TEACHER'S EDITION: Unit 10**: T176-T177, T178, T226	***Living Things and Their Needs*** **TG:** L4 pgs. 84–94 **SR:** pgs. 13–14 **Digital:** IWB: Bessbugs and Pumpkin Plant Environments; How Do We Change the Environment? What Do All Living Things Do? SIM: Pollution

NGSS/HSS CORELATIONS **CACCSS41**

KINDERGARTEN SCIENCE			
K-ETS1.B	**Developing Possible Solutions** • Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solutions to other people. (secondary to K-ESS3-3)	**SCIENCE WORKSTATION ACTIVITY CARDS:** 2, 6, 13, 14, 15, 19, 21, 30 **TEACHER'S EDITION: Unit l:** T134; **Unit 5:** T52, T134; **Unit 6**: T134; **Unit 10:** T136	***Living Things and Their Needs*** **TG:** L4 pgs. 84–94 **SR:** pgs. 13–14 **Digital:** IWB: Bessbugs and Pumpkin Plant Environments; How Do We Change the Environment? What Do All Living Things Do? SIM: Pollution ***Push, Pull, Go*** **TG:** L2 pgs. 50-56, SIS 2A; L3 pgs. 64–71, SIS 3B; L4 pgs.76– 83, SIS 4B**;** L5 pgs. 90–100, SIS 5A, SIS 5D **LA:** 3A, 4A **SR:** pgs. 4–5, 10, 6, 11–14 **Digital:** IWB: What We Know About Spinning and Twirling, Our Ideas About Force and Motion; Our Problems and How We Fixed Them; What We Know About Force and Motion; SIM: Swing Set SIM: Dominoes SIM: Spinning SIM: Motion Series
K-PS2	**Motion and Stability: Forces and Interactions**	**McGraw-Hill *California Wonders***	***Building Blocks of Science 3D***
K-PS2-1	Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object.	**READING/WRITING WORKSHOP: Unit 8:** 6-7 **SCIENCE WORKSTATION ACTIVITY CARDS:** 8, 19 **TEACHER'S EDITION: Unit 8:** T10-T11	***Push, Pull, Go*** **TG:** L1 pgs. 32–45, SIS 1D.1, SIS 1D.2; L2 pgs. 50-56, SIS 2A; L3 pgs. 64–71, SIS 3B; L4 pgs. 76–83, SIS 4B; L5 pgs. 90–100, SIS 5A, SIS 5D **LA:** 2A, THS 3A **SR**: pgs. 2–3, 8–10, 12–14,4–5, 6 **Digital:** IWB: Our Ideas About Force and Motion; What We Know About Spinning and Twirling; Our Problems and How We Fixed Them; What We Know About Force and Motion SIM: Count, Sort, Build; Rolling Ball SIM: Swing Set SIM: Dominoes SIM: Spinning SIM: Motion Series

K-PS2-2	Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull.	**READING/WRITING WORKSHOP: Unit 8:** 6-7 **SCIENCE WORKSTATION ACTIVITY CARDS:** 8, 27 **TEACHER'S EDITION: Unit 8:** T10-T11	***Push, Pull, Go*** **TG:** L5 pgs. 90–100, SIS 5A, SIS 5D **Digital:** IWB: Our Ideas About Force and Motion; Our Problems and How We Fixed Them; What We Know About Force and Motion; SIM: Motion Series
K-PS2.A	**Forces and Motion** • Pushes and pulls can have different strengths and directions. (K-PS2-l), (K-PS2-2) • Pushing or pulling on an object can change the speed or direction of its motion and can start or stop it. (K-PS2-1), (K-PS2-2)	**READING/WRITING WORKSHOP: Unit 8:** 6-7 **SCIENCE WORKSTATION ACTIVITY CARDS:** 19 **TEACHER'S EDITION: Unit 8:** T10-T11	***Push, Pull, Go*** **TG:** L1 pgs. 32–45, SIS 1D.1, SIS 1D.2**;** L2 pgs. 50-56, SIS 2A; L3 pgs. 64–71, SIS 3B; L4 pgs. 76–83; L5 pgs. 90–100, SIS 5A, SIS 5D **LA:** 2A, THS, LA 3A, LA 4A, SIS 4B **SR**: pgs. 2–3, 8–10, 12–14, 4–5, 6, 11–14, **Digital:** IWB: Our Ideas About Force and Motion; What We Know About Spinning and Twirling; Our Problems and How We Fixed Them; What We Know About Force and Motion; SIM: Count, Sort, Build; Rolling Ball SIM: Swing Set SIM: Dominoes SIM: Spinning SIM: Motion Series
K-PS3.C	**Relationship Between Energy and Forces** • A bigger push or pull makes things go faster. (secondary to K-PS2-1)	**SCIENCE WORKSTATION ACTIVITY CARDS:** 19	***Push, Pull, Go*** **TG:** L1 pgs. 32–45, SIS 1D.1, SIS 1D.2**;** L3 pgs. 64–71, SIS 3B; L4 pgs. 76–8; L5 pgs. 90–100, SIS 5A, SIS 5D **LA:** 3A, LA 4A, SIS 4B, THS **SR:** pgs. 2–3, 8–10, 12–14, 6, 11–14, **Digital:** IWB: Our Ideas About Force and Motion; What We Know About Spinning and Twirling; Our Problems and How We Fixed Them; What We Know About Force and Motion; SIM: Count, Sort, Build, SIM: Rolling Ball, SIM: Dominoes SIM: Spinning SIM: Motion Series
K-ETSI.A	**Defining Engineering Problems** • A situation that people want to change or create can be approached as a problem to be solved through engineering. Such problems may	**LITERATURE BIG BOOKS: Unit l, Week 3:** *Senses of the Seashore;* **Unit 2, Week l:** *The Handiest Things in the World* **Week 2:** *Shapes All Around;* **Unit 3, Week 2:** *Clang! Clang! Beep! Beep! Listen to the City;* **Unit 4, Week 3:** *Roadwork;* **Unit 5, Week 2:** *A Grand Old Tree;* **Unit 9, Week 3:** *Bread Comes to Life;* **Unit 10, Week 2:** *All Kinds of Families*	***Push, Pull, Go*** **TG:** L1 pgs. 32–45, SIS 1D.1, SIS 1D.2 **SR:** pgs. 2–3, 8–10, 12–14

	have many acceptable solutions. (secondary to KPS2-2)	**SCIENCE WORKSTATION ACTIVITY CARDS:** 3, 8, 27 **TEACHER'S EDITION: Unit l:** T176, T190, T208, T216; **Unit 2:** T44, T52, T126, T134, T216; **Unit 3:** T126; **Unit 4:** T190-T191; **Unit 5:** T126, T134; **Unit 7**: T134, T216; **Unit 9:** T208, T216, T248; **Unit 10:** T128, T136	**Digital:** IWB: Our Ideas About Force and Motion; SIM: Count, Sort, Build SIM: The Rolling Ball
K-PS3	**Energy**	**McGraw-Hill *California Wonders***	***Building Blocks of Science 3D***
K-PS3-1	Make observations to determine the effect of sunlight on Earth's surface.	**SCIENCE WORKSTATION ACTIVITY CARDS:** 24	***Weather and Sky*** **TG:** L4 pgs. 106–115, SIS 4B, SIS 4C **LA**: 4C **Digital:** IWB: Temperature, SIM: Thermometer, SIM: The Sun's Warming Effect

CACCSS42

KINDERGARTEN SCIENCE			
K-2-ETS1	**Engineering Design**	**McGraw-Hill *California Wonders***	***Building Blocks of Science 3D***
K-2-ETS1-1	Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.	**LEVELED READERS: Unit 2, Week 1:** *We Need Tools* (A) *What Can You See?* (B) **SCIENCE WORKSTATION ACTIVITY CARDS:** 4, 10 **TEACHER'S EDITION: Unit 2**: T60, T74	***Push, Pull, Go*** **TG:** L1 pgs. 32–45, SIS 1D.1, SIS 1D.2 **SR:** pgs. 2–3, 8–10, 12–14 **Digital:** IWB: Our Ideas About Force and Motion; SIM: Count, Sort, Build, SIM: Rolling Ball ***Weather and Sky*** **TG:** L5 pgs. 124–133, SIS 5A, SIS 5B, SIS 5C **SR:** pg. 8 **Digital:** IWB: Our Ideas About Weather; Our Problems and How We Fixed Them; The Sun's Effects on Objects; What We Know About Weather; SIM: Shadows, SIM: The Sun's Warming Effect
K-2-ETS1-2	Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.	**SCIENCE WORKSTATION ACTIVITY CARDS:** 3, 4, 5, 10	***Living Things and Their Needs*** **TG:** L3 pgs. 68–77, SIS 3B, L4 pgs. 84–94, **LA:** 3B **SR:** pgs. 6–12, 13–14 **Digital:** IWB: Bessbugs and Pumpkin Plant Environments; How Do We Change the Environment?; What Do All Living Things Do? SIM: Pollution ***Push, Pull, Go*** **TG:** L2 pgs. 50-56, SIS 2A, L3 pgs. 64–71, SIS 3B, L4 pgs.76–83, SIS 4B, L5 pgs. 90–100, SIS 5A SIS 5D, **LA:** 2A, THS; LA 3A, LA 4A **SR:** pgs. 4–5, 10, 6, 11–14 **Digital:** What We Know About Spinning and Twirling, Our Ideas About Force and Motion; Our Problems and How We Fixed Them; What We Know About Force and Motion SIM: Swing Set SIM: Dominoes

			SIM: Spinning SIM: Motion Series ***Weather and Sky*** **TG:** L5 pgs. 124–133, SIS 5A, SIS 5B, SIS 5C **SR:** pg. 8 **Digital:** IWB: Our Ideas About Weather; Our Problems and How We Fixed Them; The Sun's Effects on Objects; What We Know About Weather; SIM: Shadows; The Sun's Warming Effect
K-2-ETS1-3	Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.	**SCIENCE WORKSTATION ACTIVITY CARDS:** 4	
K-2 ETSI.A	**Defining Engineering Problems** • A situation that people want to change or create can be approached as a problem to be solved through engineering. Such problems may have many acceptable solutions. (K-2-ETS1-1) • Asking questions, making observations, and gathering information are helpful in thinking about problems. (K-2-ETS1-1) • Before beginning to design a solution, it is important to clearly understand the problem. (K-2-ETS1-1)	**LEVELED READERS: Unit 10, Week 2:** *Let's Make a Band* (O, EL) **SCIENCE WORKSTATION ACTIVITY CARDS: 3, 4,** 16, 17, 24, 27 **TEACHER'S EDITION: Unit 10:** T162	***Push, Pull, Go*** **TG:** L1 pgs. 32–45, SIS 1D.1, SIS 1D.2 **SR:** pgs. 2–3, 8–10, 12–14 **Digital:** IWB: Our Ideas About Force and Motion; SIM: Count, Sort, Build, SIM: Rolling Ball ***Weather and Sky*** **TG:** L5 pgs. 124–133, SIS 5A, SIS 5B, SIS 5C **SR**: pg. 8 **Digital:** IWB: Our Ideas About Weather; Our Problems and How We Fixed Them; The Sun's Effects on Objects; What We Know About Weather; SIM: Shadows; The Sun's Warming Effect
K-2-ETS1.B	**Developing Possible Solutions** • Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solutions to other people. (K-2-ETS1-2)	**SCIENCE WORKSTATION ACTIVITY CARDS:** 4, 10, 19, 24, 27, 29	***Living Things and Their Needs*** **TG:** L4 pgs. 84–94 **SR:** pgs. 13–14 **Digital:** IWB: Bessbug and Pumpkin Plant Environments; How Do We Change the Environment?; What Do All Living Things Do? SIM: Pollution ***Push, Pull, Go*** **TG:** L2 pgs. 50-56, SIS 2A

			LA: 2A **SR:** pgs. 4–5, 10 **Digital:** SIM: Swing Set ***Weather and Sky*** **TG:** L5 pgs. 124–133 SIS 5A, SIS 5B, SIS 5C **SR**: pg. 8 **Digital:** IWB: Our Ideas About Weather; Our Problems and How We Fixed Them; The Sun's Effects on Objects; What We Know About Weather; SIM: Shadows; The Sun's Warming Effect
K-2-ETS1.C	**Optimizing the Design Solution** • Because there is always more than one possible solution to a problem, it is useful to compare and test designs. (K-2-ETS1-3)	**SCIENCE WORKSTATION ACTIVITY CARDS:** 27	

NGSS/HSS CORELATIONS **CACCSS43**

California
Next Generation Science Standards
Grade 1

Each performance expectation is coded in the following manner:

Grade Level	Discipline	Core Idea	Sub-Idea
1	LS	2	A

Grade 1 Science			
1-LS1	**From Molecules to Organisms: Structure and Process**	**McGraw-Hill *California Wonders***	***Building Blocks of Science 3D***
1-LS1-1	Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.	**SCIENCE WORKSTATION ACTIVITY CARDS:** 3, 5, 8, 12, 16, 18	**Exploring Organisms** **TG: L5 pgs. 114-125, SIS 5A, SIS 5B** **SR pgs. 11-13** **TG: L2 pgs. 52-65, SIS 2A, SIS 2C, LA 2C** **SR pgs. 11-13** **TG: L1 pgs. 32-45, SIS 1B, SIS 1D** **SR pgs. 2, 6** **Digital Resources: IWB: Animal and Plant Needs, IWB: Living vs. Nonliving**
1-LS1-2	Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive.	**SCIENCE WORKSTATION ACTIVITY CARDS:** 8, 16, 17, 18	**Exploring Organisms** **TG: L3 pgs. 74-80, SIS 3A, LA 3A** **SR pgs. 3-5, 7** **Digital Resources: IWB: Ways Parents Care for Babies**
1- LS1.A	**Structure and Function** • All organisms have external parts. Different animals use their body parts in different ways to see, hear, grasp objects, protect themselves, move from place to place, and seek, find, and take in food, water and air. Plants also have different parts (roots, stems, leaves, flowers, fruits) that help them survive and grow. (1-LS1-1)	**READING/WRITING WORKSHOP: Unit 1:** 88-89, 94-103; **Unit 2:** 48-49 **Unit 3:** 28-29, 34-43 **LITERATURE ANTHOLOGY: Unit 1:** 66-67, 86-89, 94-95; **Unit 2:** 48-51; **Unit 3:** 46-49 **LEVELED READERS: UNIT 1, WEEK 3:** *Mouse's Moon Party* (A) *Pet Show* (O, EL) *Polly the Circus Star* (B) **Week 5:** *We Can Move* (A, O, EL, B); **Unit 3, Week 2:** *Corn Fun* (A) *Yum, Strawberries* (O, EL) *A Tree's Life* (B) **SCIENCE WORKSTATION ACTIVITY CARDS:** 5, 12, 16, 17, 18 **TEACHER'S EDITION: Unit 1:** T191, T194, T195B, T200, T208, T218, T222, T228, T321, T322, T329, T342, T347B, T351, T356, T362, T364, T374, T378, T384; **Unit 2:** T164, T166, T172, T176, T182, T186, T191B, T200, T208, T218, T222, T228; **Unit 3:** T86-T87, T94, T117A-T117B, T122, T130, T140, T144, T150	**Exploring Organisms** **TG: L5 pgs. 114-125, SIS 5A, SIS 5B** **SR pgs. 11-13** **TG: L1 pgs. 32-45, SIS 1B, SIS 1D** **SR pgs. 2, 6** **Digital Resources: IWB: Animal and Plant Needs, IWB: Living vs. Nonliving** **TG: L2 pgs. 52-65, SIS 2A, SIS 2C, LA 2C** **SR pgs. 11-13**

Grade 1 Science			
1-LS1	**From Molecules to Organisms: Structure and Process**	**McGraw-Hill *California Wonders***	***Building Blocks of Science 3D***
1-LS1.B	**Growth and Development of Organisms** • Adult plants and animals can have young. In many kinds of animals, parents and the offspring themselves engage in behaviors that help the offspring to survive. (1-LS1-2)	**SCIENCE WORKSTATION ACTIVITY CARDS:** 8, 12, 16, 17, 18	**Exploring Organisms** **TG: L4 pgs. 92-103, SIS 4A, SIS 4B, THS, LA 4C** **SR pgs. 8-10** **Digital Resources: SIM: Factors of Plant Growth, Part 1, SIM: Organism Growth** **TG: L1 pgs. 32-45, SIS 1B, SIS 1D** **SR pgs. 2, 6** **Digital Resources: IWB: Animal and Plant Needs, IWB: Living vs. Nonliving** **TG: L3 pgs. 74-80, SIS 3A, LA 3A** **SR pgs. 3-5, 7** **Digital Resources: IWB: Ways Parents Care for Babies** **TG: L5 pgs. 114-125, SIS 5A, SIS 5B** **SR pgs. 11-13**
			CCSS CORRELATIONS **CACCSS35**
1- LS1.D	**Information Processing** • Animals have body parts that capture and convey different kinds of information needed for growth and survival. Animals respond to these inputs with behaviors that help them survive. Plants also respond to some external inputs. (1-LS1-1)	**READING/WRITING WORKSHOP: Unit 4:** 38-47, 52-53 **LITERATURE ANTHOLOGY: Unit 4:** 30-39, 58-59, 60-63, 126-127 **LEVELED READERS: Unit 4, Week 2:** *Penguins All Around* (A, O, El, B) **Week 3:** *Go, Gator!* (A, O, EL, B) **Week 4:** *Where Is My Home?* (A) *The Hat* (O, EL) *Come One, Come All* (B) **SCIENCE WORKSTATION ACTIVITY CARDS:** 3, 5, 8, 12, 16, 17, 18 **TEACHER'S EDITION: Unit 4:** T88, T95, T98, T113A-T113B, T113L, T117B, T122, T130, T140, T144, T150, T164, T166, T176, T191A-T191B, T191P, T208, T218, T222, T226, T228, T254, T273A-T273B, T286, T296, T300, T306	**Exploring Organisms** **TG: L3 pgs. 74-80, SIS 3A, LA 3A** **SR pgs. 3-5, 7** **Digital Resources: IWB: Ways Parents Care for Babies** **TG: L2 pgs. 52-65, SIS 2A, SIS 2C, LA 2C** **SR pgs. 11-13**
1-LS3	**Heredity: Inheritance and Variation of Traits**	**McGraw-Hill *California Wonders***	***Building Blocks of Science 3D***
1-LS3-1	Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.	**SCIENCE WORKSTATION ACTIVITY CARDS:** 19	**Exploring Organisms** **TG: L4 pgs. 92-103, SIS 4A, SIS 4B, THS, LA 4C** **SR pgs. 8-10** **Digital Resources: SIM: Factors of Plant Growth, Part 1, SIM: Organism Growth**
1-LS3.A	**Inheritance of Traits** • Young animals are very much, but not exactly like, their parents. Plants also are very much, but	**SCIENCE WORKSTATION ACTIVITY CARDS:** 19	**Exploring Organisms** **TG: L4 pgs. 92-103, SIS 4A, SIS 4B, THS, LA 4C** **SR pgs. 8-10**

	not exactly, like their parents. (1-LS3-1)		**Digital Resources: SIM: Factors of Plant Growth, Part 1, SIM: Organism Growth**
Grade 1 Science			
1-LS3	**Heredity: Inheritance and Variation of Traits**	**McGraw-Hill *California Wonders***	***Building Blocks of Science 3D***
1-LS3.B	**Variation of Traits** • Individuals of the same kind of plant or animal are recognizable as similar but can also vary in many ways. (1-LS3-1)	**SCIENCE WORKSTATION ACTIVITY CARDS:** 19	**Exploring Organisms** **TG: L4 pgs. 92-103, SIS 4A, SIS 4B, THS, LA 4C** **SR pgs. 8-10** **Digital Resources: SIM: Factors of Plant Growth, Part 1, SIM: Organism Growth**
1-ESS1	**Earth's Place in the Universe**	**McGraw-Hill *California Wonders***	***Building Blocks of Science 3D***
1-ESS1-1	Use observations of the sun, moon, and stars to describe patterns that can be predicted.	**SCIENCE WORKSTATION ACTIVITY CARDS:** 22	**Sky Watchers** **TG: L1 pgs. 32-45, SIS 1B, SIS 1C, THS** **SR pgs. 2-7** **Digital Resources: IWB: Our Ideas About objects in the Sky, IWB: Where Can the Sun Be Seen?, IWB: Comparing Daytime and Nighttime Sky Patterns, SIM: Daytime/Nighttime, SIM: Shadows** **TG: L2 pgs. 60-70, SIS 2B, LA 2A** **SR pgs. 8-9** **Digital Resources: IWB: Why We Have Day and Night, SIM: Earth's Rotation** **TG: L4 pgs. 100-111, SIS 4A, SIS 4B, LA 4A** **SR pgs. 3, 8-9, 15** **Digital Resources: IWB: Phases of the Moon, SIM: Phases of the Moon, SIM: Sun, Earth, Moon** **TG: L5 pgs. 124-131, SIS 5A** **SR pgs. 2-14** **Digital Resources: IWB: Our Ideas About Objects in the Sky, IWB: Where Can the Sun Be Seen? IWB: Comparing Daytime and Nighttime Sky Patterns, IWB: What We Know About Objects in the Sky**
1-ESS1-2	Make observations at different times of year to relate the amount of daylight to the time of year.	**SCIENCE WORKSTATION ACTIVITY CARDS:** 28	**Sky Watchers** **TG: L3 pgs. 81-90, SIS 3A, SIS 3B, LA 3B** **SR pgs. 10-13** **Digital Resources: IWB: Seasons, IWB: Our Plan to Investigate Daylight Patterns, IWB: Sunrise and Sunset Data, SIM: Earth's Revolution**

			TG: L5 pgs. 124-131, SIS 5A **SR pgs. 2-14** **Digital Resources: IWB: Our Ideas About Objects in the Sky, IWB: Where Can the Sun Be Seen? IWB: Comparing Daytime and Nighttime Sky Patterns, IWB: What We Know About Objects in the Sky**
Grade 1 Science			
1-ESS1	**Earth's Place in the Universe**	**McGraw-Hill *California Wonders***	***Building Blocks of Science 3D***
1-ESS1.A	**The Universe and its Stars** Patterns of the motion of the sun, moon, and stars in the sky can be observed, described, and predicted. (1-ESS1-1)	**READING/WRITING WORKSHOP: Unit 5:** 134-135 **LITERATURE ANTHOLOGY: Unit 5:** 162-165, 198-200 **LEVELED READERS: Unit 5, Week 2:** *Little Blue's Dream* (A) **TEACHER'S EDITION: Unit 5:** T86, T113B, T113R, T117B, T122, T128, T130	**Sky Watchers** **TG: L1 pgs. 32-45, SIS 1B, SIS 1C, THS** **SR pgs. 2-7** **Digital Resources: IWB: Our Ideas About objects in the Sky, IWB: Where Can the Sun Be Seen?, IWB: Comparing Daytime and Nighttime Sky Patterns, SIM: Daytime/Nighttime, SIM: Shadows** **TG: L4 pgs. 100-111, SIS 4A, SIS 4B, LA 4A** **SR pgs. 3, 8-9, 15** **Digital Resources: IWB: Phases of the Moon, SIM: Phases of the Moon, SIM: Sun, Earth, Moon** **TG: L3 pgs. 81-90, SIS 3A, SIS 3B, LA 3B** **SR pgs. 10-13** **Digital Resources: IWB: Seasons, IWB: Our Plan to Investigate Daylight Patterns, IWB: Sunrise and Sunset Data**
1-ESS1.B	**Earth and the Solar System** Seasonal patterns of sunrise and sunset can be observed, described, and predicted. (1-ESS1-2)	**LEVELED READERS: Unit 5, Week 2:** *Hide and Seek* (O, EL, B) **SCIENCE WORKSTATION ACTIVITY CARDS:** 28 **TEACHER'S EDITION: Unit 5:** T140, T144, T150	**Sky Watchers** **TG: L3 pgs. 81-90, SIS 3A, SIS 3B, LA 3B** **SR pgs. 10-13** **Digital Resources: IWB: Seasons, IWB: Our Plan to Investigate Daylight Patterns, IWB: Sunrise and Sunset Data** **TG: L5 pgs. 124-131, SIS 5A** **SR pgs. 2-14** **Digital Resources: IWB: Our Ideas About Objects in the Sky, IWB: Where Can the Sun Be Seen? IWB: Comparing Daytime and Nighttime Sky Patterns, IWB: What We Know About Objects in the Sky**

Grade 1 Science			
1-PS4	**Waves and Their Applications in Technologies for Information Transfer**	**McGraw-Hill *California Wonders***	***Building Blocks of Science 3D***
1-PS4-1	Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate.	**SCIENCE WORKSTATION ACTIVITY CARDS:** 24	**Light and Sound Waves** **TG: L2 pgs. 48-50, SIS 2A, SIS 2C, LA 2B** **SR pgs. 10-14** **Digital Resources: IWB: Vibrations on a Drum** **TG: L3 pgs. 72-88, SIS 3A, LA 3B** **SR pgs. 10-11** **Digital Resources: IWB: Our Plan to Study Vibrations** **TG: L6 pgs. 124-126, SIS 6B** **Digital Resources: IWB: How Do We Communicate with Sound and Light?**

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Grade 1 Science			
1-PS4	**Waves and Their Applications in Technologies for Information Transfer**	**McGraw-Hill *California Wonders***	***Building Blocks of Science 3D***
1-PS4.A	**Wave Properties** • Sound can make matter vibrate, and vibrating matter can make sound. (1-PS4-1)	**SCIENCE WORKSTATION ACTIVITY CARDS:** 24	**Light and Sound Waves** **TG: L1 pgs. 34-44** **SR pgs. 2-3, 10-12** **Digital Resources: IWB: Our Ideas About Light and Sound, SIM: Vibrations** **TG: L2 pgs. 48-50, SIS 2A, SIS 2C, LA 2B** **SR pgs. 10-14** **Digital Resources: IWB: Vibrations on a Drum** **TG: L3 pgs. 72-88, SIS 3A, LA 3B** **SR pgs. 10-11** **Digital Resources: IWB: Our Plan to Study Vibrations** **TG: L6 pgs. 124-126, SIS 6B** **Digital Resources: IWB: How Do We Communicate with Sound and Light?**
K-2	**Engineering Design**	**McGraw-Hill *California Wonders***	***Building Blocks of Science 3D***
K-2-ETS1-2	Develop a simple sketch, drawing, or physical	**SCIENCE WORKSTATION ACTIVITY CARDS:** 25	**Exploring Organisms**

	model to illustrate how the shape of an object helps it function as needed to solve a given problem.		**TG: L5 pgs. 114-125, SIS 5A, SIS 5B** **SR pgs. 11-13** **Light and Sound Waves** **TG: L6 pgs. 124-126, SIS 6B** **Digital Resources: IWB: How Do We Communicate with Sound and Light?**
Grade 1 Science			
K-2	**Engineering Design**	**McGraw-Hill *California Wonders***	***Building Blocks of Science 3D***
K-2-ETS1-3.	Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.	**LITERATURE ANTHOLOGY: Unit 1:** 94-95 **TEACHER'S EDITION: Unit 1:** T351, T356, T362	**Light and Sound Waves** **TG: L6 pgs. 124-126, SIS 6B** **Digital Resources: IWB: How Do We Communicate with Sound and Light?**
K-2-ETS1.A	**Defining and Delimiting Engineering Problems** • A situation that people want to change or create can be approached as a problem to be solved through engineering. (K-2-ETS1-1) • Asking questions, making observations, and gathering information are helpful in thinking about problems. (K-2-ETS1-1) • Before beginning to design a solution, it is important to clearly understand the problem. (K-2-ETS1-1)	**READING/WRITING WORKSHOP: Unit 5:** 114-115, 194-195 **LITERATURE ANTHOLOGY: Unit 5:** 140-143, 160-161, 268-269 **LEVELED READERS: Unit 5, Week 1:** *Nuts for Winter* (A) *Dog Bones* (O,EL) *Spark's Toys* (B) **Week 5:** *What Is a Yurt?* (A, O, EL, B) **TEACHER'S EDITION: Unit 1:** T351, T356, T362; **Unit 4:** T200; **Unit 5:** T8, T10, T16, T20, T35A- T35B, T39B, T44, T52, T62, T66, T72, T320, T350, T362, T364, T374, T378, T384	**Exploring Organisms** **TG: L5 pgs. 114-125, SIS 5A, SIS 5B** **SR pgs. 11-13** **Light and Sound Waves** **TG: L6 pgs. 124-126, SIS 6B** **Digital Resources: IWB: How Do We Communicate with Sound and Light?**
K-2-ETS1.B	**Developing Possible Solutions** • Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solutions to other people. (K-2-ETS1-2)	**LITERATURE ANTHOLOGY: Unit 1:** 94-95 **TEACHER'S EDITION: Unit 1:** T351, T356, T362; **Unit 4:** T278; **Unit 5:** T278, T284, T356; **Unit 6:** T200	**Light and Sound Waves** **TG: L6 pgs. 124-126, SIS 6B** **Digital Resources: IWB: How Do We Communicate with Sound and Light?** **Exploring Organisms** **TG: L5 pgs. 114-125, SIS 5A, SIS 5B** **SR pgs. 11-13**
K-2-ETS1.C	**Optimizing the Design Solution** Because there is always more than one possible solution to a problem, it is useful to compare and test designs. (K-2-ETS1-3)	**READING/WRITING WORKSHOP: Unit 5:** 194-195 **LITERATURE ANTHOLOGY: Unit 5:** 268-269 **LEVELED READERS: Unit 5, Week 5:** *What Is a Yurt?* (A, O, EL, B) **TEACHER'S EDITION: Unit 5:** T320, T350, T362, T364, T374, T378, T384	**Light and Sound Waves** **TG: L6 pgs. 124-126, SIS 6B** **Digital Resources: IWB: How Do We Communicate with Sound and Light?** **Exploring Organisms** **TG: L5 pgs. 114-125, SIS 5A, SIS 5B** **SR pgs. 11-13**

California
Next Generation Science Standards
Grade 2

Each performance expectation is coded in the following manner:

Grade Level	Discipline	Core Idea	Sub-Idea
2	LS	2	A

Grade 2 Science			
2-LS2	**Ecosystems: Interactions, Energy, and Dynamics**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
2-LS2-1.	**Plan and conduct an investigation to determine if plants need sunlight and water to grow.**	**Science Workstation Activity Cards:** 20, 26	**Ecosystem Diversity** **L1 pgs. 32-44, LS 1B, SIS 1C** **SR pgs. 2-13** **Digital Resources: IWB: Living Things Matrix, IWB: Basic Needs of Living Things Map**
2-LS2.A	**Interdependent Relationships in Ecosystems** • Plants depend on water and light to grow. (2-LS2-1)	**Reading/Writing Workshop: Unit 6:** 408–409 **Literature Anthology: Unit 6:** 486–505, 508–511 **Science Workstation Activity Cards:** 20, 26 **Teacher's Edition: Unit 6:** T19, T28, T45B–T45J, T51A–T51B, T54	**Ecosystem Diversity** **L4 pgs. 82-100, SIS 4A, THS, LA 4A** **Digital Resources: IWB: Pill Bug Preferences** **L2 pgs. 54-60, SIS 2B.1, SIS 2B.2, LA 2B** **Digital Resources: SIM: Factors of Plant Growth, Part 1, SIM: Plant Growth, Part 1** **L3 pgs. 75-82, LS 3A** **Digital Resources: SIM: Bee Pollination** **L5 pgs. 112-119, LS 5A, SIS 5A** **Digital Resources: SIM: Pollution** **L1 pgs. 32-44, LS 1B, SIS 1C** **SR pgs. 2-13** **Digital Resources: IWB: Living Things Matrix, IWB: Basic Needs of Living Things Map**

Grade 2 Science			
2-LS2	**Ecosystems: Interactions, Energy, and Dynamics**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
2-ETS1.B	**Developing Possible Solutions** • Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solutions to other people. *(secondary to 2-LS2-2)*	**Science Workstation Activity Cards:** 19, 20, 26, 28	**Ecosystem Diversity** **L5 pgs. 112-119, LS 5A, SIS 5A** **Digital Resources: SIM: Pollution** **L3 pgs. 75-82, LS 3A** **Digital Resources: SIM: Bee Pollination**
2-LS4	**Biological Evolution: Unity and Diversity**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
2-LS4-1	Make observations of plants and animals to compare the diversity of life in different habitats.	**Science Workstation Activity Cards:** 3, 4, 6, 8 10, 19	**Ecosystem Diversity** **L2 pgs. 54-60, SIS 2B.1, SIS 2B.2, LA 2B** **Digital Resources: SIM: Factors of Plant Growth, Part 1, SIM: Plant Growth, Part 1** **L1 pgs. 32-44, LS 1B, SIS 1C** **SR pgs. 2-13** **Digital Resources: IWB: Living Things Matrix, IWB: Basic Needs of Living Things Map** **L4 pgs. 82-100, SIS 4A, THS, LA 4A** **Digital Resources: IWB: Pill Bug Preferences**
2-LS4.D	**Biodiversity and Humans** There are many different kinds of living things in any area, and they exist in different places on land and in water. (2-LS4-1)	**Reading/Writing Workshop: Unit 1:** 66–67, 74–75; **Unit 2:** 98–99, 106–107, 134–135, 146–147, 154–155 **Literature Anthology: Unit 1:** 84–85; **Unit 2:** 112–113, 132–135, 164–167, 184–185 **Leveled Readers: Unit 1: Week 1:** *People Helping Whales* (A, O, EL, B); **Unit 2: Week 1:** *Hippos at the Zoo* (A), *Where Are They Going?* (O, EL) *An Arctic Life for Us* (B) **Week 3:** *A Tree Full of Life* (A, O, EL, B) **Week 4:** *Animal Families* (A, O, EL, B) **Science Workstation Activity Cards:** 4, 6, 8, 10, 19 **Teacher's Edition: Unit 1:** T284, T286, T294, T297, T300,T306, T308, T318, T323B, T326 T329A, T332, T338, T340,T350, T354, T360; **Unit 2:** T9, T10, T18, T21, T24, T42, T47B,T53A–T53B, T56, T62, T64, T74, T8, T84, T192, T194, T203, T208, T226, T231A–T231B, T234, T237A, T240, T246, T248, T258, T262, T268, T284, T286, T294, T297, T300, T306, T318, T332, T338, T340, T350, T354, T360, T46	**Ecosystem Diversity** **L5 pgs. 112-119, LS 5A, SIS 5A** **Digital Resources: SIM: Pollution** **L3 pgs. 75-82, LS 3A** **Digital Resources: SIM: Bee Pollination** **L1 pgs. 32-44, LS 1B, SIS 1C** **SR pgs. 2-13** **Digital Resources: IWB: Living Things Matrix, IWB: Basic Needs of Living Things Map**

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Grade 2 Science			
2-ESS1	**Earth's Place in the Universe**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
2-ESS1-1.	Make observations from media to construct an evidence-based account that Earth events can occur quickly or slowly.	**Science Workstation Activity Cards:** 28	**Earth Materials** **L5 pgs. 158-174, SIS 5A, SIS 5B, LA 5B** **SR pgs. 5, 10-13** **Digital Resources: IWB: Changes to the Land, IWB: Landforms and Bodies of Water, SIM: Canyon Formation, SIM: Glacier Formation** **L3 pgs. 96-111, LS 3A, SIS 3C, SIS 3C.1, SIS 3C.2, SIS 3D, LA 3B** **SR pgs. 12-13** **Digital Resources: IWB: Our Ideas About Sand, IWB: Properties of Dry and Wet Sand, SIM: Erosion, SIM: Weathering** **L2 pgs. 64-76, SIS 2A, SIS 2B, THS, LA 2A** **SR pgs. 6-7, 10-14** **Digital Resources: IWB: What We Can Observe About Rocks, IWB: What We Can Observe About Landforms, SIM: Formation of Rock Types** **L4 pgs. 132-143, SIS 4B, LS 4C, LA 4A** **SR pgs. 7, 12-13** **Digital Resources: IWB: Our Ideas about Soil, IWB: Comparing Sand and Soil, SIM: Soil Erosion**
2-ESS1.C:	**The History of Planet Earth** Some events happen very quickly; others occur very slowly, over a time period much longer than one can observe. (2-ESS1-1)	**Reading/Writing Workshop: Unit 3:** 198–199; **Unit 4:** 272–273, 276–279 **Literature Anthology: Unit 4:** 324–329, 334–335 **Leveled Readers: Unit 4: Week 2:** *Earthquakes* (A, O, EL, B) **Science Workstation Activity Cards:** 28 **Teacher's Edition: Unit 3:** T103, T110, T116; **Unit 4:** T98, T100, T109, T112, T130, T135B, T135D, T141A, T142, T144, T145, T150, T152, T162, T166, T170, T172, T278, T280, T284, T292, T293, T298, T300, T310, T321A, T324, T330, T332, T342, T346, T352, T360	**Earth Materials** **L2 pgs. 64-76, SIS 2A, SIS 2B, THS, LA 2A** **SR pgs. 6-7, 10-14** **Digital Resources: IWB: What We Can Observe About Rocks, IWB: What We Can Observe About Landforms, SIM: Formation of Rock Types** **L6 pgs. 192-198, SIS 6A, SIS 6B** **SR pgs. 2-4, 8-9, 13,15** **Digital Resources: IWB: Our Ideas About Earth's Materials, IWB: What We Know About Earth's**

			Materials **L3 pgs. 96-111, LS 3A, SIS 3C, SIS 3C.1, SIS 3C.2, SIS 3D, LA 3B** **SR pgs. 12-13** **Digital Resources: IWB: Our Ideas About Sand, IWB: Properties of Dry and Wet Sand, SIM: Erosion, SIM: Weathering**
Grade 2 Science			
2-ESS2	**Earth's Systems**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
2-ESS2-1.	Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land.	**Science Workstation Activity Cards:** 17	**Earth Materials** **L6 pgs. 192-198, SIS 6A, SIS 6B** **SR pgs. 2-4, 8-9, 13,15** **Digital Resources: IWB: Our Ideas About Earth's Materials, IWB: What We Know About Earth's Materials** **L3 pgs. 96-111, LS 3A, SIS 3C, SIS 3C.1, SIS 3C.2, SIS 3D, LA 3B** **SR pgs. 12-13** **Digital Resources: IWB: Our Ideas About Sand, IWB: Properties of Dry and Wet Sand, SIM: Erosion, SIM: Weathering** **L4 pgs. 132-143, SIS 4B, LS 4C, LA 4A** **SR pgs. 7, 12-13** **Digital Resources: IWB: Our Ideas about Soil, IWB: Comparing Sand and Soil, SIM: Soil Erosion**
2-ESS2-2.	Develop a model to represent the shapes and kinds of land and bodies of water in an area.	**Science Workstation Activity Cards:** 17	**Earth Materials** **L1 pgs. 34-49, SIS 1B, SIS 1C.1, SIS 1C.2, SIS 1D.1, SIS 1D.2** **SR pgs. 2-5, 13** **Digital Resources: IWB: Our Ideas About Earth's Materials, IWB: What We Know About Water, SIM: Water Cycle** **L6 pgs. 192-198, SIS 6A, SIS 6B** **SR pgs. 2-4, 8-9, 13,15** **Digital Resources: IWB: Our Ideas About Earth's**

			Materials, IWB: What We Know About Earth's Materials
Grade 2 Science			
2-ESS2	**Earth's Systems**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
2-ESS2-3.	Obtain information to identify where water is found on Earth and that it can be solid or liquid.	**Literature Anthology: Unit 6:** 516–519 **Science Workstation Activity Cards:** 17, 24 **Teacher's Edition: Unit 6**: T135C–T135D	**Earth Materials** **L5 pgs. 158-174, SIS 5A, SIS 5B, LA 5B** **SR pgs. 5, 10-13** **Digital Resources: IWB: Changes to the Land, IWB: Landforms and Bodies of Water, SIM: Canyon Formation, SIM: Glacier Formation** **L6 pgs. 192-198, SIS 6A, SIS 6B** **SR pgs. 2-4, 8-9, 13,15** **Digital Resources: IWB: Our Ideas About Earth's Materials, IWB: What We Know About Earth's Materials** **L1 pgs. 34-49, SIS 1B, SIS 1C.1, SIS 1C.2, SIS 1D.1, SIS 1D.2** **SR pgs. 2-5, 13** **Digital Resources: IWB: Our Ideas About Earth's Materials, IWB: What We Know About Water, SIM: Water Cycle**
2-ESS2.A	**Earth Materials and Systems** • Wind and water can change the shape of the land. (2-ESS2-1)	**Leveled Readers: Unit 6: Week 2:** *Wind Power* (A, O, EL, B) **Science Workstation Activity Cards:** 17 **Teacher's Edition: Unit 6:** T152, T162, T166, T172	**Earth Materials** **L1 pgs. 34-49, SIS 1B, SIS 1C.1, SIS 1C.2, SIS 1D.1, SIS 1D.2** **SR pgs. 2-5, 13** **Digital Resources: IWB: Our Ideas About Earth's Materials, IWB: What We Know About Water, SIM: Water Cycle** **L3 pgs. 96-111, LS 3A, SIS 3C, SIS 3C.1, SIS 3C.2, SIS 3D, LA 3B** **SR pgs. 12-13** **Digital Resources: IWB: Our Ideas About Sand, IWB: Properties of Dry and Wet Sand, SIM: Erosion, SIM: Weathering** **L5 pgs. 158-174, SIS 5A, SIS 5B, LA 5B** **SR pgs. 5, 10-13** **Digital Resources: IWB: Changes to the Land, IWB:**

			Landforms and Bodies of Water, SIM: Canyon Formation, SIM: Glacier Formation
Grade 2 Science			
2-ESS2	**Earth's Systems**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
2-ESS2.B	**Plate Tectonics and Large-Scale System Interactions** • Maps show where things are located. One can map the shapes and kinds of land and water in any area. (2-ESS2-2)	**Science Workstation Activity Cards:** 17	<u>Earth Materials</u> **L1 pgs. 34-49, SIS 1B, SIS 1C.1, SIS 1C.2, SIS 1D.1, SIS 1D.2** **SR pgs. 2-5, 13** **Digital Resources: IWB: Our Ideas About Earth's Materials, IWB: What We Know About Water, SIM: Water Cycle** **L6 pgs. 192-198, SIS 6A, SIS 6B** **SR pgs. 2-4, 8-9, 13,15** **Digital Resources: IWB: Our Ideas About Earth's Materials, IWB: What We Know About Earth's Materials**
2-ESS2.C	**The Roles of Water in Earth's Surface Processes** • Water is found in the ocean, rivers, lakes, and ponds. Water exists as solid ice and in liquid form. (2-ESS2-3)	**Science Workstation Activity Cards:** 17, 24 **Teacher's Edition: Unit 6:** T138, T150	<u>Earth Materials</u> **L5 pgs. 158-174, SIS 5A, SIS 5B, LA 5B** **SR pgs. 5, 10-13** **Digital Resources: IWB: Changes to the Land, IWB: Landforms and Bodies of Water, SIM: Canyon Formation, SIM: Glacier** **L6 pgs. 192-198, SIS 6A, SIS 6B** **SR pgs. 2-4, 8-9, 13,15** **Digital Resources: IWB: Our Ideas About Earth's Materials, IWB: What We Know About Earth's Materials** **L1 pgs. 34-49, SIS 1B, SIS 1C.1, SIS 1C.2, SIS 1D.1, SIS 1D.2** **SR pgs. 2-5, 13** **Digital Resources: IWB: Our Ideas About Earth's Materials, IWB: What We Know About Water, SIM: Water Cycle**
2-ETS1.C	**Optimizing the Design Solution** Because there is always more than one possible solution to a problem, it is useful to compare and test designs. *(secondary to 2-ESS2-1)*	**Science Workstation Activity Cards:** 17, 27	<u>Earth Materials</u> **L3 pgs. 96-111, LS 3A, SIS 3C, SIS 3C.1, SIS 3C.2, SIS 3D, LA 3B** **SR pgs. 12-13** **Digital Resources: IWB: Our Ideas About Sand, IWB: Properties of Dry and Wet Sand, SIM: Erosion, SIM: Weathering**

			L4 pgs. 132-143, SIS 4B, LS 4C, LA 4A **SR pgs. 7, 12-13** **Digital Resources: IWB: Our Ideas about Soil, IWB: Comparing Sand and Soil, SIM: Soil Erosion**
Grade 2 Science			
2-PS1	**Matter and its Interactions**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
2-PS1-1.	Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.	**Science Workstation Activity Cards:** 15	**Matter** **L2 pgs. 50-66, SIS 2A, LA 2C** **SR pgs. 2-6, 8-11** **Digital Resources: IWB: Water's Three States of Matter, SIM: Water Conservation, SIM: Matter Particles** **L3 pgs. 72-82, SIS 2A, SIS 3C, LA 3C** **SR pg. 13** **Digital Resources: IWB: Describing Properties, SIM: Create a Mixture**
2-PS1-2.	Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose.	**Reading/Writing Workshop: Unit 3:** 182–187 **Teacher's Edition: Unit 3:** T18–T21	**Matter** **L4 pgs. 90-99, SIS 4A, SIS 4B, LA 4B** **SR pg. 6** **Digital Resources: IWB: Materials and HOW We Use Them, SIM: Sink or Float** **L5 pgs. 116-130, SIS 5A, SIS 5B, SIS 5C** **SR pg. 12** **Digital Resources: SIM: Identify Change, SIM: Physical Change**
			CCSS CORRELATIONS **CACCSS39**
2-PS1-4	Construct an argument with evidence that some changes caused by heating or cooling can be reversed and some cannot.	**Science Workstation Activity Cards:** 27	**Matter** **L5 pgs. 116-130, SIS 5A, SIS 5B, SIS 5C** **SR pg. 12** **Digital Resources: SIM: Identify Change, SIM: Physical Change** **L2 pgs. 50-66, SIS 2A, LA 2C** **SR pgs. 2-6, 8-11** **Digital Resources: IWB: Water's Three States of**

			Matter, SIM: Water Conservation, SIM: Matter Particles
2-PS1	**Matter and its Interactions**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
2-PS1.B	**Chemical Reactions** • Heating or cooling a substance may cause changes that can be observed. Sometimes these changes are reversible, and sometimes they are not. (2-PS1-4)	**Literature Anthology: Unit 6:** 524–525 **Science Workstation Activity Cards:** 27 **Teacher's Edition: Unit 6:** T112, T130, T135B, T138, T148	**Matter** **L5 pgs. 116-130, SIS 5A, SIS 5B, SIS 5C** **SR pg. 12** **Digital Resources: SIM: Identify Change, SIM: Physical Change**
Grade 2 Science			
K-2	**Engineering Design**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
K-2-ETS1-3.	Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.	**Literature Anthology: Unit 3:** 212–215, 220–223, 224–225, 230–231 **Teacher's Edition: Unit 3:** T47A–T47B	**Ecosystem Diversity** **L4 pgs. 82-100, SIS 4A, THS, LA 4A** **Digital Resources: IWB: Pill Bug Preferences**
K-2-ETS1.A	**Defining and Delimiting Engineering Problems** • A situation that people want to change or create can be approached as a problem to be solved through engineering. (K-2-ETS1-1)	**Reading/Writing Workshop: Unit 3:** 182–187; **Unit 4:** 272–273, 278–279 **Literature Anthology: Unit 3:** 214–215; **Unit 4:** 322–329, 334–335 **Leveled Readers: Unit 4: Week 2:** *Earthquakes* (A, O. EL, B) **Teacher's Edition: Unit 2**: T56; **Unit 3:** T18–T21, T21, T24, T30, T42, T47A–T47B, T47E–T47F, T47G, T50, T53B, T56, T57; **Unit 4:** T98, T100, T109, T112, T130, T135A–T135D, T141B, T144, T145, T150, T152, T162, T166, T172, T324, T330, T411B	**Matter** **L5 pgs. 116-130, SIS 5A, SIS 5B, SIS 5C** **SR pg. 12** **Digital Resources: SIM: Identify Change, SIM: Physical Change**
	• Asking questions, making observations, and gathering information are helpful in thinking about problems. (K-2-ETS1-1)	**Reading/Writing Workshop: Unit 6:** 416–417, 422–423 **Literature Anthology: Unit 6:** 514–515 **Teacher's Edition: Unit 6:** T99, T109, T135B	**Earth Materials** **L4 pgs. 132-143, SIS 4B, LS 4C, LA 4A** **SR pgs. 7, 12-13** **Digital Resources: IWB: Our Ideas about Soil, IWB: Comparing Sand and Soil, SIM: Soil Erosion** **L3 pgs. 96-111, LS 3A, SIS 3C, SIS 3C.1, SIS 3C.2, SIS 3D, LA 3B** **SR pgs. 12-13** **Digital Resources: IWB: Our Ideas About Sand, IWB: Properties of Dry and Wet Sand, SIM: Erosion, SIM: Weathering**

CACCSS40

California
Next Generation Science Standards
Grade 3

Each performance expectation is coded in the following manner:

Grade Level	Discipline	Core Idea	Sub-Idea
3	LS	1	A

Grade 3 Science			
3-LS1	**From Molecules to Organisms: Structures and Processes**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
3-LS1-1.	Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.	**LITERATURE ANTHOLOGY: Unit 4:** 298–299, 340–341 **SCIENCE WORKSTATION ACTIVITY CARDS:** 30 **TEACHER'S EDITION: Unit 4:** T25U, T153O	**Life in Ecosystems** **TG: L1 pgs. 32-51, SIS 1A, SIS 1B.1, SIS 1B.2, SIS 1B.3, SIS 1C** **SR: pgs. 2-3, 15** **Digital Resources: IWB: Our School as a Model of an Ecosystem: IWB: Predictions About Our Plants and Butterflies**
3- LS1.B	**Growth and Development of Organisms** • Reproduction is essential to the continued existence of every kind of organism. Plants and animals have unique and diverse life cycles. (3-LS1-1)	**LITERATURE ANTHOLOGY: Unit 4:** 298–299; **Unit 6:** 520–541 **TEACHER'S EDITION: Unit 4:** T25U; **Unit 6:** T217T	**Life in Ecosystems** **TG: L1 pgs. 32-51, SIS 1A, SIS 1B.1, SIS 1B.2, SIS 1B.3, SIS 1C** **SR: pgs. 2-3, 15** **Digital Resources: IWB: Predictions About Our Plants and Butterflies**

Grade 3 Science			
3-LS2	**Ecosystems: Interactions, Energy, and Dynamics**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
3-LS2-1.	Construct an argument that some animals form groups that help members survive.	**SCIENCE WORKSTATION ACTIVITY CARDS:** 9	**Life in Ecosystems** **TG: L1 pgs. 47-51, SIS 1C, SR: pgs. 4-5** **SR: pgs. 2-3, 15** **Digital Resources: IWB: Life Cycles of Plant and Butterfly**
3-LS2.C	**Ecosystem Dynamics, Functioning, and Resilience** When the environment changes in ways that affect a place's physical characteristics, temperature, or availability of resources, some organisms survive and reproduce, others move to new locations, yet others move into the transformed environment, and some die.	**TEACHER'S EDITION: Unit 4:** T38, T39, T102, T103, T166, T167, T230, T231, T294, T295, T330, T331, T332 www.connected.mcgraw-hill.com: **RESOURCES Inquiry Space:** Unit 4	**Life in Ecosystems** **TG: L3 pgs. 90-98, SIS 3A, SIS 3B, SIS 3C, LA 3C** **SR: pgs. 4-7** **Digital Resources: IWB: Adaptations, IWB: Predator-Prey, IWB: Environmental Factors and Growth, SIM: Beak Simulation**
3- LS2.D	**Social Interactions and Group Behavior** Being part of a group helps animals obtain food, defend themselves, and cope with changes. Groups may serve different functions and vary dramatically in size *(Note: Moved from K–2)*. (3-LS2-1)	**SCIENCE WORKSTATION ACTIVITY CARDS:** 1, 9 **TEACHER'S EDITION: Unit 4:** T140	**Life in Ecosystems** **TG: L3 pgs. 90-98, SIS 3A, SIS 3B, SIS 3C, LA 3C** **SR: pgs. 4-7** **Digital Resources: IWB: Adaptations, IWB: Predator-Prey, IWB: Environmental Factors and Plant Growth, SIM: Beak Simulation**

Grade 3 Science			
3-LS3	**Heredity: Inheritance and Variation of Traits**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
3- LS3.A	**Inheritance of Traits** • Many characteristics of organisms are inherited from their parents. (3-LS3-1) • Other characteristics result from individuals' interactions with the environment, which can range from diet to learning. Many characteristics involve both inheritance and environment. (3-LS3-2)	**READING/WRITING WORKSHOP: Unit 6:** 448–451 **LITERATURE ANTHOLOGY: Unit 6:** 520–541 **TEACHER'S EDITION: Unit 6**: T209, T210, T217A, T217T	**Life in Ecosystems** **TG: L2 pgs. 68-80, LA 2A, SIS 2A, SIS 2B** **SR: pgs. 10-11** **Digital Resources: IWB: Class Inherited Traits; SIM: Trait Variation**

NGSS/HSS CORRELATIONS **CACCSS37**

3-LS3.B	**Variation of Traits** • Different organisms vary in how they look and function because they have different inherited information. (3-LS3-1) • The environment also affects the traits that an organism develops. (3-LS3-2)	**READING/WRITING WORKSHOP: Unit 3:** 178–179 **LITERATURE ANTHOLOGY: Unit 3:** 216–219 **TEACHER'S EDITION: Unit 3:** T10, T27W, T30	**Life in Ecosystems** **TG: L2 pgs. 68-80, LA 2A, SIS 2A, SIS 2B; L4 pgs. 130-145** **SR: pgs. 10-11, 12-13, 15** **Digital Resources: IWB: Class Inherited Traits; SIM: Trait Variation; IWB: Environmental Factors and Plant Growth; IWB: Organisms' Needs; Sim: Phototropism; SIM: Fossil Formation**
3-LS4	**Biological Evolution: Unity and Diversity**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
3-LS4-1.	Analyze and interpret data from fossils to provide evidence of the organisms and the environments in which they lived long ago.	**SCIENCE WORKSTATION ACTIVITY CARDS:** 17	**Life in Ecosystems** **TG: L4 pgs. 130-145, LA 4A, SIS 4A, SIS 4B.1, SIS 4B.2, SIS 4B.3** **SR: pgs. 12-13, 15** **Digital Resources: SIM: Phototropism, SIM: Fossil Formation**

Grade 3 Science			
3-LS4	**Biological Evolution: Unity and Diversity**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
3-LS4-2.	Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing.	**SCIENCE WORKSTATION ACTIVITY CARDS:** 1, 18	**Life in Ecosystems** **TG: L3 pgs. 90-108, SIS 3A, SIS 3B, THS, LA 3C, SIS 3C; L5 pgs. 168-178, SIS 5B, SA** **SR: pgs. 2-15** **Digital Resources: IWB: Adaptations, SIM: Beak Simulation; SIM: Coral Reef**
3-LS4-3.	Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.	**SCIENCE WORKSTATION ACTIVITY CARDS:** 1, 18, 29	**Life in Ecosystems** **TG; L4 pgs. 130-145, LA 4A, SIS 4A, SIS 4B.1, SIS 4B.2, SIS 4B.3** **SR: pgs. 12-13, 15** **Digital Resources: SIM: Fossil Formation; SIM: Phototropism; IWB: Environmental Factors and Plant Growth**
3-LS4-4.	Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.	**SCIENCE WORKSTATION ACTIVITY CARDS:** 1, 18, 29	**Life in Ecosystems** **TG: L5 pgs. 168-178, SIS 5B, SA,** **SR: pgs. 2-5, 15** **Digital Resources: IWB: Ecosystem Chart: IWB: Ecosystem Interactions; Sim: Coral Reef**
3- LS4.B	**Natural Selection** • Sometimes the differences in characteristics between individuals of the same species provide advantages in surviving, finding mates, and reproducing. (3-LS4-2)	**SCIENCE WORKSTATION ACTIVITY CARDS:** 18	**Life in Ecosystems** **TG: L3 pgs. 90-108, SIS 3A, SIS 3B, THS, LA 3C, SIS 3C; L5 pgs. 168-178, SIS 5B, SA** **SR: pgs. 2-15** **Digital Resources: IWB: Adaptations, SIM: Beak Simulation; SIM: Coral Reef**
3- LS4.C	**Adaptation** • For any particular environment, some	**READING/WRITING WORKSHOP: Unit 2:** 146–147; **Unit 4:** 286–287, **LITERATURE ANTHOLOGY: Unit 4:** 326–337; **Unit 6:** 520–	**Life in Ecosystems** **TG; L4 pgs. 130-145, LA 4A, SIS 4A, SIS 4B.1, SIS 4B.2, SIS 4B.3**

	kinds of organisms survive well, some survive less well, and some cannot survive at all. (3-LS4-3)	541 **LEVELED READERS: Unit 6, Week, 4:** *African Cats* (A,O,EL, B) **SCIENCE WORKSTATION ACTIVITY CARDS:** 1, 18, 29 **TEACHER'S EDITION: Unit 2:** T209, T336**; Unit 4:** T138, T146, T153A, T153F, T168, T176, T180, T186; **Unit 6:** T232, T 240, T244, T250	**SR: pgs. 12-13, 15** **Digital Resources: SIM: Fossil Formation; SIM: Phototropism; IWB: Environmental Factors and Plant Growth**

Grade 3 Science			
3-LS4	**Biological Evolution: Unity and Diversity**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
3- LS4.D	**Biodiversity and Humans** • Populations live in a variety of habitats, and change in those habitats affects the organisms living there. (3-LS4-4)	**READING/WRITING WORKSHOP: Unit 6:** 448–451 **LITERATURE ANTHOLOGY: Unit 2:** 172–183, 186–187**; Unit 5:** 416–421**; Unit 6:** 520–541 **LEVELED READERS: Unit 2, Week 4:** *Protecting the Islands* (A, O, EL, B) **SCIENCE WORKSTATION ACTIVITY CARDS:** 1, 18 **TEACHER'S EDITION: Unit 2**: T208, T210, T225A, T225F, T225O, T228, T240, T248, T252, T258**; Unit 5:** T89Y–T89Z, T104, T112, T116, T122, T153A**; Unit 6:** T209, T210, T217A	**Life in Ecosystems** **TG: L5 pgs. 168-178, SIS 5B, SA** **SR: pgs. 2-5, 15** **Digital Resources: IWB: Ecosystem Chart: IWB: Ecosystem Interactions; Sim: Coral Reef**

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Grade 3 Science			
3-ESS2	**Earth's Systems**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
3-ESS2-1.	Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season.	**SCIENCE WORKSTATION ACTIVITY CARDS:** 10, 27, 30 **TEACHER'S EDITION: Unit 2:** T40, T41, T106, T107, T172, T173, T238, T239, T302, T303, T338, T339, T340 www.connected.mcgraw-hill.com: **RESOURCES: Inquiry Space:** Unit 2	**Weather and Climate Patterns** **TG: L1 pgs. 32-46, SIS 1A; SIS 1B, SIS 1C, THS; L2 pgs. 66-76, L&S 2A, SIS 2A, LA 2B, SIS 2B** **SR: pgs. 2-9, 14-15** **Digital Resources: IWB: Our Ideas About Weather; IWB: Seasons; SIM: Air Pressure; SIM: Rain Gauge; SIM: Precipitation; SIM: Water Vapor**

Grade 3 Science			
3-ESS2	**Earth's Systems**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
3-ESS2-2.	Obtain and combine information to describe climates in different regions of the world.	**SCIENCE WORKSTATION ACTIVITY CARDS:** 10	**Weather and Climate Patterns** **TG: L3 pgs. 102-116, LA 3A, SIS 3A, SIS 3B, SIS 3C; L4 pgs. 144-154, LA 4A, SIS 4A, SIS 4B.1, SIS 4B.2** **SR: Pgs. 10-13** **Digital Resources: IWB: Our Ideas About Climate; IWB: Weather Hazards; SIM: Earth's Rotation**
3-ESS2.D	**Weather and Climate** • Scientists record patterns of the weather across different times and areas so that they can make predictions about what kind of weather might happen next. (3-ESS2-1) • Climate describes a range of an area's typical weather conditions and the extent to which those conditions vary over years. (3-ESS2-2)	**READING/WRITING WORKSHOP: Unit 6:** 416–417 **SCIENCE WORKSTATION ACTIVITY CARDS:** 10, 27, 30 **TEACHER'S EDITION: Unit 6:** T74, T92	**Weather and Climate Patterns** **TG: L1 pgs. 32-46, SIS 1A; SIS 1B, SIS 1C, THS; L2 pgs. 66-76, L&S 2A, SIS 2A, LA 2B, SIS 2B; L3 pgs. 102-116, LA 3A, SIS 3A, SIS 3B, SIS 3C; L4 pgs. 144-154, LA 4A, SIS 4A, SIS 4B.1, SIS 4B.2** **SR: Pgs. 2-15** **Digital Resources: IWB: Our Ideas about Weather; IWB: Seasons; SIM: Air Pressure; SIM: Rain Gauge: SIM: Precipitation; SIM: Water Vapor; IWB: Our Ideas About Climate; IWB: Weather Hazards; SIM: Earth's Rotation**
3-ESS3	**Earth and Human Activity**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
3-ESS3-1.	Make a claim about the merit of a design solution that reduces the impacts of a weather-related hazard.	**SCIENCE WORKSTATION ACTIVITY CARDS:** 10, 14	**Weather and Climate Patterns** **TG: L5 pgs. 172-183, SIS 5A, SIS 5B.1, SIS 5B.2**
3-ESS3.B	**Natural Hazards** • A variety of natural hazards result from natural processes. Humans cannot eliminate natural hazards but can take steps to reduce their impacts. (3-ESS3-	**LITERATURE ANTHOLOGY: Unit 5:** 416–427; **Unit 6:** 482–501 **SCIENCE WORKSTATION ACTIVITY CARDS:** 10, 14 **TEACHER'S EDITION: Unit 2:** T40, T41, T106, T107, T172, T173, T238, T239, T302, T303, T338, T339, T340; **Unit 5:** T153A, T153J, T328; **Unit 6:** T89A	**Weather and Climate Patterns** **TG: L4 pgs. 144-154, LA 4, SIS 4A, SIS 4B.1, SIS 4B.2; L5 pgs. 172-183; SIS 5A, SIS 5B.1, SIS 5B.2** **Digital Resources: IWB: Our Ideas About Weather; IWB: Our Ideas About Climate; SIM: Air Circulation; SIM: Air Pressure; SIM: Coriolis Effect**

	1) (Note: This Disciplinary Core Idea is also addressed by 4-ESS3-2.)	www.connected.mcgraw-hill.com: RESOURCES: **Inquiry Space:** Unit 2	
Grade 3 Science			
3-PS2	**Motion and Stability: Forces and Interactions**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
3-PS2-1.	Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object.	**SCIENCE WORKSTATION ACTIVITY CARDS:** 4, 17, 19, 23, 30	**Forces and Interactions** **TG: L1 pgs. 32-48, SIS 1A, SIS 1C; L2 pgs. 54-70, SIS 2A, SIS 2B, LA 2C, SIS 2C** **SR: Pgs. 4-5, 7-8** **Digital Resources: SIM: Balance an Unknown; SIM: Tug-of-War; SIM: Friction; SIM: Rolling Car; SIM Spring Scale**
3-PS2-2.	Make observations and/or measurements of an object's motion to provide evidence that a pattern can be used to predict future motion.	**SCIENCE WORKSTATION ACTIVITY CARDS:** 4, 17, 23, 30	**Forces and Interactions** **TG: L2 pgs. 54-70, SIS 2A, SIS 2B, LA 2C; L3 pgs. 86-98, SIS 3A, SIS 3B, LA 3B, SIS 3C** **SR: Pgs. 2-3, 5-7, 10-11** **Digital Resources: SIM: Friction; SIM: Rolling Car; SIM Spring Scale; SIM: Force, Motion, Speed**
3-PS2-3.	Ask questions to determine cause and effect relationships of electric or magnetic interactions between two objects not in contact with each other.	**SCIENCE WORKSTATION ACTIVITY CARDS:** 23	**Forces and Interactions** **TG: L4 pgs. 112-129, SIS 4B, SIS 4C.1, SIS 4C.2, SIS 4D.1, SIS 4D.2, THS** **SR: Pg. 9** **Digital Resources: IWB: Which Objects Are Magnetic? SIM: Magnetic Attraction and Repulsion; SIM: Iron Filings**

NGSS/HSS CORRELATIONS **CACCSS39**

Grade 3 Science			
3-PS2	**Motion and Stability: Forces and Interactions**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
3- PS2.A	**Forces and Motion** • Each force acts on one particular object and has both strength and a direction. An object at rest typically has multiple forces acting on it, but they add to give zero net force on the object. Forces that do not sum to zero can cause changes in the object's speed or direction of motion. (Boundary: Qualitative and conceptual, but not quantitative addition of forces are used at this level.) (3-PS2-1) • The patterns of an object's motion in various situations can be observed and measured; when that past motion exhibits a regular pattern, future motion can be predicted from it. (Boundary: Technical terms, such as magnitude, velocity, momentum, and vector quantity, are not introduced at this level, but the concept that some quantities need both size and direction to be described is developed.) (3-PS2-2)	**READING/WRITING WORKSHOP: Unit 4:** 300–301, 304–307 **LITERATURE ANTHOLOGY: Unit 4:** 342–355, 358–359, 430–431 **SCIENCE WORKSTATION ACTIVITY CARDS:** 4, 19, 23 **TEACHER'S EDITION: Unit 4:** T202, T204, T208, T217A, T217H, T217Q, T248 **Unit 5:** T153O, T266, T328	**Forces and Interactions** **TG: L1 pgs. 32-48, SIS 1A, SIS 1C; L2 pgs. 54-70, SIS 2A, SIS 2B, LA 2C, SIS 2C** **SR: Pgs. 4-5, 7-8** **Digital Resources: SIM: Balance an Unknown; SIM: Tug-of-War; SIM: Friction; Sim: Rolling Car; SIM Spring Scale** **Forces and Interactions** **TG: L2 pgs. 54-70, SIS 2A, SIS 2B, LA 2C; L3 pgs. 86-98, SIS 3A, SIS 3B, LA 3B, SIS 3C** **SR: Pgs. 2-3,5-7, 10-11** **Digital Resources: SIM: Friction; Sim: Rolling Car; SIM Spring Scale; SIM: Force, Motion, Speed**

Grade 3 Science			
3-PS2	**Motion and Stability: Forces and Interactions**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
3- PS2.B	**Types of Interactions** • Objects in contact exert forces on each other. (3-PS2-1) • Electric, and magnetic forces between a pair of objects do not require that the objects be in contact. The sizes of the forces in each situation depend on the properties of the objects and their distances apart and, for forces between two magnets, on their orientation relative to each other. (3-PS2-3), (3-PS2-4)	**SCIENCE WORKSTATION ACTIVITY CARDS:** 4, 19, 23 **TEACHER'S EDITION: Unit 5:** T268	**Forces and Interactions** **TG: L1 pgs. 32-48, SIS 1A, SIS 1C; L2 pgs. 54-70, SIS 2A, SIS 2B, LA 2C, SIS 2C** **SR: Pgs. 4-5, 7-8** **Digital Resources: SIM: Balance an Unknown; SIM: Tug-of-War; SIM: Friction; Sim: Rolling Car; SIM Spring Scale** **Forces and Interactions** **TG: L4 pgs. 112-129, SIS 4B, SIS 4C.1, SIS 4C.2, SIS 4D.1, SIS 4D.2, THS** **SR: Pgs.9** **Digital Resources: IWB: Which Objects Are Magnetic? SIM: Magnetic Attraction and Repulsion; SIM: Iron Filings**
3-5-ETS1	**Engineering Design**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
3-5-ETS1-3.	Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.	**SCIENCE WORKSTATION ACTIVITY CARDS:** 19, 25	**Forces and Interactions** **TG: L5 pgs.152-159, SIS 5B, SA**

Grade 3 Science			
3-5-ETS1	**Engineering Design**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
3-5-ETS1.A	**Defining and Delimiting Engineering Problems** • Possible solutions to a problem are limited by available materials and resources (constraints). The success of a designed solution is determined by considering the desired features of a solution (criteria). Different proposals for solutions can be compared on the basis of how well each one meets the specified criteria for success or how well each takes the constraints into account. (3-5-ETS1-1)	**READING/WRITING WORKSHOP: Unit 1:** 70 -75; **Unit 3:** 210, 226–227, 230–231 **LITERATURE ANTHOLOGY: Unit 1:** 92–93; **Unit 3:** 258–267 **LEVELED READERS: Unit 3, Week 4:** *Inspired by Nature* (A, O, EL, B) **SCIENCE WORKSTATION ACTIVITY CARDS:** 19, 25 **TEACHER'S EDITION: Unit 1:** T255S; **Unit 3:** T142, T208, T210, T215, T225A, T240, T248, T252, T258	**Forces and Interactions** **TG: L5 pgs.152-159, SIS 5B, SA** **Digital Res0urces: SIM: Newton's First Law; SIM: Newton's Third Law**

CACCSS40

Grade 3 Science

3-5-ETS1	Engineering Design	*McGraw-Hill California Wonders*	*Building Blocks of Science 3D*
3- ETS1.B	**Developing Possible Solutions** • Research on a problem should be carried out before beginning to design a solution. Testing a solution involves investigating how well it performs under a range of likely conditions. (3-5-ETS1-2) • At whatever stage, communicating with peers about proposed solutions is an important part of the design process, and shared ideas can lead to improved designs.	**READING/WRITING WORKSHOP: Unit 1:** 70–75; **Unit 6:** 434–435 **LITERATURE ANTHOLOGY: Unit 1:** 74–75, 86–87; **Unit 6:** 506–515 **LEVELED READERS: Unit 1, Week 4:** *The Amazing Ben Franklin* (A, O, EL, B); **Unit 6, Week 3:** *Reach for the Stars* (A, O, EL, B) **SCIENCE WORKSTATION ACTIVITY CARDS:** 4, 19, 25, 28 **TEACHER'S EDITION: Unit 1:** T208, T225A, T225N, T240, T248, T252, T258; **Unit 6:** T145, T153A, T153D, T168, T176, T180, T186	**Forces and Interactions** **TG: L4 pgs.112-129, SIS 4B, LA 4C, SIS 4C.1, SIS 4C.2, SIS 4C.2, SIS 4D.1, SIS 4D.2, SA** **SR: pg. 9** **Digital Resources: IWB: Which Objects Are Magnetic? SIM: Magnetic Attraction and Repulsion; SIM: Iron Filings**
3-5 ETS1.C	**Optimizing the Design Solution** Different solutions need to be tested in order to determine which of them best solves the problem, given the criteria and the constraints. (3-5-ETS1-3)	**READING/WRITING WORKSHOP: Unit 2:** 96–97, 150–151 **LITERATURE ANTHOLOGY: Unit 2:** 172–183; **Unit 3:** 258–267 **LEVELED READERS: Unit 2, Week 4:** *Protecting the Islands* (A, O, EL, B) **SCIENCE WORKSTATION ACTIVITY CARDS:** 28 **TEACHER'S EDITION: Unit 2:** T214, T225A, T225O, T240, T248, T252, T258; **Unit 3:** T225D, T336	**Forces and Interactions** **TG: L5 pgs.152-159, SIS 5B, SA** **Digital Resources: SIM: Newton's First Law; SIM: Newton's Third Law**

NGSS/HSS CORRELATIONS **CACCSS41**

California
Next Generation Science Standards
Grade 4

Each performance expectation is coded in the following manner:

Grade Level	Discipline	Core Idea	Sub-Idea
4	LS	1	A

Grade 4 Science

4-LS1	From Molecules to Organisms: Structures and Processes	*McGraw-Hill California Wonders*	*Building Blocks of Science 3D*
4-LS1-1.	Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.	**READING/WRITING WORKSHOP: Unit 2:** 132–133, 136–139 **LITERATURE ANTHOLOGY: Unit 2:** 152–167 **LEVELED READERS: Unit 2, Week 4:** *Extreme Animals* (A, O, EL, B) **SCIENCE WORKSTATION ACTIVITY CARDS:** 7, 8, 9, 15 **TEACHER'S EDITION: Unit 2:** T202–203, T208–209, T217A–217P	Plant and Animal Structures **TG: L1 pgs. 34-43, SIS 1A, SIS 1B** **Digital Resources: IWB: Plant and Animal Structures; SIM: Factors of Plant Growth, Part 2; SIM: Plant Life Cycle**
4-LS1-2.	Use a model to describe that animals receive different types of information through their senses, process the information in their brain, and respond to the information in different ways.	**LITERATURE ANTHOLOGY: Unit 2:** 152–167 **SCIENCE WORKSTATION ACTIVITY CARDS:** 6 **TEACHER'S EDITION: Unit 2:** T38, T39, T102, T103, T166, T167, T217G–217P, T230, T231, T294, T295, T330, T331, T332 **www.connected.mcgraw-hill.com: RESOURCES: InquirySpace:** Unit 2	Plant and Animal Structures **TG: L4 pgs. 118-131, SIS 4A.1, SIS 4A.2, SIS 4B, SIS 4B, SIS 4C, LA 4B** **SR pgs. 6-7** **Digital Resources: IWB: Information Processing, SIM: Information Processing, SIM: Reaction Time**
4-LS1.A	**Structure and Function** Plants and animals have both internal and external structures that serve various functions in growth, survival, behavior, and reproduction. (4-LS1-1)	**READING/WRITING WORKSHOP: Unit 2:** 132–133, 136–139, **Unit 3:** 223–225 **LITERATURE ANTHOLOGY: Unit 2:** 152–167, **Unit 3:** 268–269 **LEVELED READERS: Unit 2, Week 4:** *Extreme Animals* (A, O, EL, B), **Unit 3, Week 5:** *The Battle Against Pests* (A, O, EL, B) **SCIENCE WORKSTATION ACTIVITY CARDS:** 8, 15 **TEACHER'S EDITION: Unit 2:** T38, T39, T102, T103, T153F, T153S, T166, T167, T202, T204, T209, T217A–T217P, T220, T230, T231, T232, T240, T244, T250, T284, T294, T295, T328, T330, T331, T332 **Unit 3:** T296, T304, T308, T314 **www.connected.mcgraw-hill.com: RESOURCES: InquirySpace:** Unit 2	Plant and Animal Structures **TG: L2 pgs. 48-64, LS 2A, SIS 2A, SIS 2B.1, SIS 2B.2, LA 2B** **SR pgs. 2-5, 8-9** **Digital Resources: IWB: Thinking About Structures, IWB: Vertebrates and Invertebrates** **TG: L3 pgs. 84-99, SIS 3A, SIS 3C, SIS 3D, THS, LA 3B** **SR pgs. 10-13** **Digital Resources: SIM: Bee Pollination**

Grade 4 Science			
4-LS1	**From Molecules to Organisms: Structures and Processes**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
4-LS1.D	**Information Processing** Different sense receptors are specialized for particular kinds of information, which may be then processed by the animal's brain. Animals are able to use their perceptions and memories to guide their actions. (4-LS1-2)	**LITERATURE ANTHOLOGY: Unit 2:** 152–167 **SCIENCE WORKSTATION ACTIVITY CARDS:** 6 **TEACHER'S EDITION: Unit 2:** T209,T217G–T217P, T232, T240, T244, T250	Plant and Animal Structures **TG: L4 pgs. 118-131, SIS 4A.1, SIS 4A.2, SIS 4B, SIS 4B, SIS 4C, LA 4B** **SR pgs. 6-7** **Digital Resources: IWB: Information Processing, SIM: Information Processing, SIM: Reaction Time** **TG: L5 pgs. 152-156, SIS 5A, LA 5A** **Digital Resources: IWB: What Eye Know, SIM: Pupil Size**

CACCSS36

Grade 4 Science			
4-ESS1	**Earth's Place in the Universe**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
4-ESS1-1.	Identify evidence from patterns in rock formations and fossils in rock layers to support an explanation for changes in a landscape over time.	**LEVELED READERS: Unit 2, Week 3:** *Saving San Francisco Bay* (A, O, EL, B) **SCIENCE WORKSTATION ACTIVITY CARDS:** 3 **TEACHER'S EDITION: Unit 2:** T244–T245, **Unit 4:** T204, T209, T217A, T217H, T220, T232, T240,T250	Changing Earth **TG: L2 pgs. 48-59, SIS 2A, SIS 2B, SIS 2C, LA 2A** **SR pgs. 16-21** **Digital Resources: SIM: Formation of Rock Types, SIM: Rock Cycle**
4-ESS1.C	**The History of Planet Earth** Local, regional, and global patterns of rock formations reveal changes over time due to earth forces, such as earthquakes. The presence and location of certain fossil types indicate the order in which rock layers were formed. (4-ESS1-1)		Changing Earth **TG: L5 pgs. 98-108, LA 5A**
4-ESS2	**Earth's Systems**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
4-ESS2-1.	Make observations and/or measurements to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind, or vegetation.	**READING/WRITING WORKSHOP: Unit 1:** 50–53, **Unit 5:** 352–355 **LITERATURE ANTHOLOGY: Unit 5:** 428–445 **LEVELED READERS: Unit 1, Week 3:** *Changing Landscapes* (A, O, EL, B), **Unit 5, Week 4:** *Secrets of the Ice* (A, O, EL, B) **TEACHER'S EDITION: Unit 1:** T144–145, **Unit 5:** T208–209, T217A–217R	Changing Earth **TG: L6 pgs. 112-121, SIS 6A, SIS 6B** **Digital Resources: IWB: Our Earth, SIM: Soil Erosion**

Grade 4 Science			
4-ESS2	**Earth's Systems**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
4-ESS2.A	**Earth Materials and Systems** Rainfall helps to shape the land and affects the types of living things found in a region. Water, ice, wind, living organisms, and gravity break rocks, soils, and sediments into smaller particles and move them around. (4-ESS2-1)	**READING/WRITING WORKSHOP: Unit 1:** 50–53, **Unit 5:** 352–355 **LITERATURE ANTHOLOGY: Unit 1:** 48–57, **Unit 5:** 428–445 **LEVELED READERS: Unit 1, Week 3:** *Changing Landscapes* (A, O, EL, B), **Unit 5: Week 4:** *Secrets of the Ice* (A, O, EL, B) **SCIENCE WORKSTATION ACTIVITY CARDS:** 24 **TEACHER'S EDITION: Unit 1:** T144, T145, T153E, T153G, T153H, T168, T176, T180, T184, T186, **Unit 5:** T202, T208–T209, T217A–T217R, T220, T232, T240, T244, T250	Changing Earth **TG: L3 pgs. 66-75, SIS 3A, THS: Rocksicle, LA 3A** **SR pgs. 12-15** **Digital Resources: IWB: Weather and Erosion, SIM: Canyon Formation**
4-ESS2.B	**Plate Tectonics and Large-Scale System Interactions** The locations of mountain ranges, deep ocean trenches, ocean floor structures, earthquakes, and volcanoes occur in patterns. Most earthquakes and volcanoes occur in bands that are often along the boundaries between continents and oceans. Major mountain chains form inside continents or near their edges. Maps can help locate the different land and water features areas of Earth. (4-ESS2-2)	**LITERATURE ANTHOLOGY: Unit 1:** 48–57 **TEACHER'S EDITION: Unit 1:** T153C–T153E	Changing Earth **TG: L1 pgs. 34-44, SIS 1B** **SR pgs. 2-9** **Digital Components: IWB: Our Earth, SIM: Earth's Layers, SIM: Magma Convection** **TG: L4 pgs. 86-93, SIS 4A, SIS 4B, LA 4A** **SR pgs. 10-11**
4-ESS2.E	**Biogeology** Living things affect the physical characteristics of their regions. (4-ESS2-1)	**READING/WRITING WORKSHOP: Unit 2:** 118–119, 122–125 **LITERATURE ANTHOLOGY: Unit 2:** 130–145 **LEVELED READERS: Unit 2, Week 3:** *Saving San Francisco Bay* (A, O, EL, B) **TEACHER'S EDITION: Unit 2:** T138, T140, T144–T145, T153A, T153C, T153D, T153N, T168, T176, T180, T186	Changing Earth **TG: L6 pgs. 112-121, SIS 6A, SIS 6B** **Digital Resources: IWB: Our Earth, SIM: Soil Erosion**

NGSS-HSS CORRELATIONS **CACCSS37**

Grade 4 Science			
4-ESS3	**Earth and Human Activity**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
4-ESS3.A	**Natural Resources** Energy and fuels that humans use are derived from natural sources, and their use affects the environment in multiple ways. Some resources are renewable over time, and others are not. (4-ESS3-1)	**READING/WRITING WORKSHOP: Unit 6:** 406–407, 410–413 **LEVELED READERS: Unit 6, Week 3:** *Planet Power* (A, O, EL, B) **TEACHER'S EDITION: Unit 5:** T217R, **Unit 6:** T138–T139, T140, T144–T145, T153A, T153D, T153E, T153F, T156, T168-169, T176-T177, T180-T181, T184, T186-T187, T328	Changing Earth TG: L6 pgs. 112-121, SIS 6A, SIS 6B Digital Resources: IWB: Our Earth, SIM: Soil Erosion

Grade 4 Science			
4-ESS3	**Earth and Human Activity**	***McGraw-Hill California Wonders***	*Building Blocks of Science 3D*
4-ESS3.B	**Natural Hazards** A variety of hazards result from natural processes (e.g., earthquakes, tsunamis, volcanic eruptions). Humans cannot eliminate the hazards but can take steps to reduce their impacts. (4-ESS3-2)	**READING/WRITING WORKSHOP: Unit 1:** 46–47, 50–53 **SCIENCE WORKSTATION ACTIVITY CARDS:** 3, 24 **TEACHER'S EDITION: Unit 1:** T138, T140, T145	Changing Earth TG: L1 pgs. 34-44, SIS 1B SR pgs. 2-9 Digital Resources: IWB: Our Earth, SIM: Earth's Layers, SIM: Magma Convection
4-ESS3.C	**Human Impacts on Earth Systems** Human activities in agriculture, industry, and everyday life have had major effects on the land, vegetation, streams, ocean, air, and even outer space. But individuals and communities are doing things to help protect Earth's resources and environments.	**TEACHER'S EDITION: Unit 3:** T38, T39, T102, T103, T166, T167, T230, T231, T294, T295, T330, T331, T332 **www.connected.mcgraw-hill.com: RESOURCES: InquirySpace:** Unit 3	**Changing Earth** **TG: L6 pgs. 112-121, SIS 6A, SIS 6B** **Digital Resources: IWB: Our Earth, SIM: Soil Erosion**
ETS1.B	**Designing Solutions to Engineering Problems** Testing a solution involves investigating how well it performs under a range of likely conditions. (secondary to 4-ESS3-2)	**SCIENCE WORKSTATION ACTIVITY CARDS:** 24, 28 **TEACHER'S EDITION: Unit 6:** T156	**Changing Earth** **TG: L6 pgs. 112-121, SIS 6A, SIS 6B** **Digital Resources: IWB: Our Earth, SIM: Soil Erosion**
4-PS3	**Energy**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
4-PS3-1.	Use evidence to construct an explanation relating the speed of an object to the energy of that object.	**READING/WRITING WORKSHOP: Unit 1:** 64–67 **LEVELED READERS: Unit 1, Week 4:** *George's Giant Wheel* (A, O, EL, B) **SCIENCE WORKSTATION ACTIVITY CARDS:** 4, 23 **TEACHER'S EDITION: Unit 1:** T208-T209	**Energy Works** **TG: L2 pgs. 48-60, SIS 2A, SIS 2B, SIS 2C, LA 2A** **SR pgs. 6-9** **Digital Resources: IWB: Exploring Stored and Motion Energy, SIM: Stored and Motion Energy, SIM: Ping-Pong Ball Energy, SIM: Energy Transfer**
4-PS3-2.	Make observations to provide evidence that energy can be transferred from place to place by sound, light, heat, and electric currents.	**LITERATURE ANTHOLOGY: Unit 5:** 424–427 **SCIENCE WORKSTATION ACTIVITY CARDS:** 4, 23 **TEACHER'S EDITION: Unit 5:** T153S–T153V	**Energy Works** **TG: L5 pgs. 168-181, SIS 5B, SIS 5C, THS, LA 5A** **SR pgs. 10-14** **Digital Resources: IWB: Alternative Energy, SIM: Wind Turbine, SIM: Waterwheel**
4-PS3-3.	Ask questions and predict outcomes about the changes in energy that occur when objects collide.	**READING/WRITING WORKSHOP: Unit 1:** 64–67 **LEVELED READERS: Unit 1, Week 4:** *George's Giant Wheel* (A, O, EL, B) **SCIENCE WORKSTATION ACTIVITY CARDS:** 4, 23 **TEACHER'S EDITION: Unit 1:** T208–T209	**Energy Works** **TG: L4 pgs. 128-141, SIS 4A, SIS 4B.1, SIS 4B.2, SIS 4C, SIS 4D, LA 4C** **Digital Resources: IWB: Let's Find Out About Water Waves, SIM: Wind Waves, SIM: Marble Waves, SIM: Morse Code Demo**

Grade 4 Science			
4-PS3	**Energy**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
4-PS3-4.	Apply scientific ideas to design, test, and refine a device that converts energy from one form to another.	**SCIENCE WORKSTATION ACTIVITY CARDS:** 23	**Energy Works** **TG: L6 pgs. 208-216, SIS 6A, SIS 1B, SIS 1B** **Digital Resources: IWB: My Energy Experiment**
4-PS3.A	**Definitions of Energy** The faster a given object is moving, the more energy it possesses. (4-PS3-1) Energy can be moved from place to place by moving objects or through sound, light, or electric currents. (4-PS3-2)	**READING/WRITING WORKSHOP: Unit 1:** 64–67 **LITERATURE ANTHOLOGY: Unit 1:** 62–77 **LEVELED READERS: Unit 1, Week 4:** *George's Giant Wheel* (A, O, EL, B) **SCIENCE WORKSTATION ACTIVITY CARDS:** 4, 23 **TEACHER'S EDITION: Unit 1:** T202, T204, T209, T217A, T217F, T217H, T220, T232, T240, T244, T248, T250,	**Energy Works** **TG: L1 pgs. 34-43, SIS 1B** **SR pgs. 2-5** **Digital Resources: IWB: Where Do You Get Your Energy?**

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Grade 4 Science			
4-PS3	**Energy**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
4-PS3.B	**Conservation of Energy and Energy Transfer** Energy is present whenever there are moving objects, sound, light, or heat. When objects collide, energy can be transferred from one object to another, thereby changing their motion. In such collisions, some energy is typically also transferred to the surrounding air; as a result, the air gets heated and sound is produced. (4-PS3-3) Light also transfers energy from place to place. (4-PS3-2) Energy can also be transferred from place to place by electric currents, which can then be used locally to produce motion, sound, heat, or light. The currents may have been produced to begin with by transforming the energy of motion into electrical energy. (4-PS3-4)	**READING/WRITING WORKSHOP: Unit 1:** 64–67 **LITERATURE ANTHOLOGY: Unit 1:** 62–77, **Unit 5:** 424–427 **LEVELED READERS: Unit 1, Week 4:** *George's Giant Wheel* (A, O, EL, B) **SCIENCE WORKSTATION ACTIVITY CARDS:** 4, 23 **TEACHER'S EDITION: Unit 1:** T209, T217F, T217H, T220, T248, **Unit 5:** T153A, T153S–T153V	**Energy Works** **TG: L3 pgs. 88-101, SIS 3A, SIS 3C.1, SIS 3C.2, SIS 3C.3, LA 3A** **SR pgs. 8-9** **Digital Resources: IWB: Energy Transfers and Transformations, IWB: Bulbs and Batteries Mystery Box, and Solar Cells, SIM: Building a Circuit, SIM: Solar Cells**
4-PS3.C	**Relationship Between Energy and Forces** When objects collide, the contact forces transfer energy so as to change the objects' motions. (4-PS3-3)	**READING/WRITING WORKSHOP: Unit 1:** 64–67 **LITERATURE ANTHOLOGY: Unit 1:** 66–77 **LEVELED READERS: Unit 1, Week 4:** *George's Giant Wheel* (A, O, EL, B) **SCIENCE WORKSTATION ACTIVITY CARDS:** 23 **TEACHER'S EDITION: Unit 1:** T202, T204, T209, T217F, T217H, 220, T248, **Unit 5:** T153A	**Energy Works** **TG: L4 pgs. 128-141, SIS 4A, SIS 4B.1, SIS 4B.2, SIS 4C, SIS 4D, LA 4C** **Digital Resources: IWB: Let's Find Out About Water Waves, SIM: Wind Waves, SIM: Marble Waves, SIM: Morse Code Demo**

Grade 4 Science			
4-PS3	**Energy**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
4-PS3.D	**Energy in Chemical Processes and Everyday Life** The expression "produce energy" typically refers to the conversion of stored, energy into a desired form for practical use. (4-PS3-4)	**TEACHER'S EDITION: Unit 2:** T145, T149, T153E, T156	**Energy Works** **TG: L5 pgs. 168-181, SIS 5B, SIS 5C, THS, LA 5A** **SR pgs. 10-14** **Digital Resources: IWB: Alternative Energy, SIM: Wind Turbine, SIM: Waterwheel**
3-5 ETS1.A	**Defining and Delimiting Engineering Problems** Possible solutions to a problem are limited by available materials and resources (constraints). The success of a designed solution is determined by considering the desired features of a solution (criteria). Different proposals for solutions can be compared on the basis of how well each one meets the specified criteria for success or how well each takes the constraints into account. (secondary to 4-PS3-4)	**TEACHER'S EDITION: Unit 4:** T138, T153L, T156	**Energy Works** **TG: L5 pgs. 168-181, SIS 5B, SIS 5C, THS, LA 5A** **SR pgs. 10-14** **Digital Resources: IWB: Alternative Energy, SIM: Wind Turbine, SIM: Waterwheel**
3-5.ETS1.B	**Developing Possible Solutions** Research on a problem should be carried out before beginning to design a solution. Testing a solution involves investigating how well it performs under a range of likely conditions. (3-5-ETS1-2) • At whatever stage, communicating with peers about proposed solutions is an important part of the design process, and shared ideas can lead to improved designs. (3-5-ETS1-2) • Tests are often designed to identify failure points or difficulties, which suggest the elements of the design that need to be improved. (3-5-ETS1-3)	**Reading/Writing Workshop: Unit 5:** 334–335 **TEACHER'S EDITION: Unit 3:** T266, T268, T272, T281A, T284, T312, **Unit 5:** T138, T140, T145, T153K, T168, T176, T180, T186	**Energy Works** **TG: L6 pgs. 208-216, SIS 6A, SIS 1B** **Digital Resources: IWB: My Energy Experiment**

Grade 4 Science			
4-PS4	**Waves and their Applications in Technologies for Information Transfer**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
4-PS4-1.	Develop a model of waves to describe patterns in terms of amplitude and wavelength and that waves can cause objects to move.	**SCIENCE WORKSTATION ACTIVITY CARDS:** 18	**Energy Works** **TG: L4 pgs. 128-141, SIS 4A, SIS 4B.1, SIS 4B.2, SIS 4C, SIS 4D, LA 4C** **Digital Resources: IWB: Let's Find Out About Water Waves, SIM: Wind Waves, SIM: Marble Waves, SIM: Morse Code Demo**
4-PS4-2.	Develop a model to describe that light reflecting from objects and entering the eye allows objects to be seen.	**SCIENCE WORKSTATION ACTIVITY CARDS:** 18	**Energy Works** **TG: L4 pgs. 128-141, SIS 4A, SIS 4B.1, SIS 4B.2, SIS 4C, SIS 4D, LA 4C** **Digital Resources: IWB: Let's Find Out About Water Waves, SIM: Wind Waves**
4-PS4.A	**Wave Properties** Waves, which are regular patterns of motion, can be made in water by disturbing the surface. When waves move across the surface of deep water, the water goes up and down in place; there is no net motion in the direction of the wave except when the water meets a beach. (Note: This grade band endpoint was moved from K–2.) (4-PS4-1) Waves of the same type can differ in amplitude (height of the wave) and wavelength (spacing between wave peaks). (4-PS4-1)	**READING/WRITING WORKSHOP: Unit 5:** 352–355 **LITERATURE ANTHOLOGY: Unit 5:** 428–445 **LEVELED READERS: Unit 5, Week 4:** *Secrets of the Ice* (A, O, EL, B) **TEACHER'S EDITION: Unit 5:** T153V, T208–T209, T217A–T217R	**Energy Works** **TG: L4 pgs. 128-141, SIS 4A, SIS 4B.1, SIS 4B.2, SIS 4C, SIS 4D, LA 4C** **Digital Resources: IWB: Let's Find Out About Water Waves, SIM: Wind Waves**
4-PS4.C	**Information Technologies and Instrumentation** Digitized information can be transmitted over long distances without significant degradation. High-tech devices, such as computers or cell phones, can receive and decode information—convert it from digitized form to voice—and vice versa. (4-PS4-3)	**SCIENCE WORKSTATION ACTIVITY CARDS:** 18	**Energy Works** **TG: L4 pgs. 128-141, SIS 4A, SIS 4B.1, SIS 4B.2, SIS 4C, SIS 4D, LA 4C** **Digital Resources: IWB: Let's Find Out About Water Waves, SIM: Wind Waves**

Grade 4 Science			
3-5-ETS1	**Engineering Design**	***McGraw-Hill California Wonders***	
3-5-ETS1.A	**Defining and Delimiting Engineering Problems** Possible solutions to a problem are limited by available materials and resources (constraints). The success of a designed solution is determined by considering the desired features of a solution (criteria). Different proposals for solutions can be compared on the basis of how well each one meets the specified criteria for success or how well each takes the constraints into account. (3-5-ETS1-1)	**READING/WRITING WORKSHOP: Unit 4:** 234–235 **TEACHER'S EDITION: Unit 4:** T138–T139, T153L, T156	**Energy Works** **TG: L6 pgs. 208-216, SIS 6A, SIS 1B** **Digital Resources: IWB: My Energy Experiment**

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Grade 4 Science			
3-5-ETS1	**Engineering Design**	***McGraw-Hill California Wonders***	
3-5-ETS1.B:	**Developing Possible Solutions** Research on a problem should be carried out before beginning to design a solution. Testing a solution involves investigating how well it performs under a range of likely conditions. (3-5-ETS1-2) At whatever stage, communicating with peers about proposed solutions is an important part of the design process, and shared ideas can lead to improved designs. (3-5-ETS1-2) Tests are often designed to identify failure points or difficulties, which suggest the elements of the design that need to be improved. (3-5-ETS1-3)	**READING/WRITING WORKSHOP: Unit 3:** 218–219, **Unit 6:** 406–407, 410–413 **LITERATURE ANTHOLOGY: Unit 3:** 264–269, **Unit 6:** 496–513 **LEVELED READERS: Unit 6, Week 3:** *Planet Power* (A, O, EL, B) **TEACHER'S EDITION: Unit 3:** T266, T268 T272, T281A–281F, T284, T312, **Unit 6:** T138–139, T144–T145, T153A–T153J	**Energy Works** **TG: L6 pgs. 208-216, SIS 6A, SIS 1B** **Digital Resources: IWB: My Energy Experiment**

California
Next Generation Science Standards
Grade 5

Each performance expectation is coded in the following manner:

Grade Level	Discipline	Core Idea	Sub-Idea
5	LS	1	A

Grade 5 Science			
5-LS1	**From Molecules to Organisms: Structures and Processes**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
5-LS1-1.	Support an argument that plants get the materials they need for growth chiefly from air and water.	**SCIENCE WORKSTATION ACTIVITY CARDS:** 20	**Matter and Energy in Ecosystems** **TG: L1 pgs. 34-46, SIS 1B, SIS 1C** **SR pgs. 6-9** **Digital Resources: IWB: Biotic and Abiotic Factors, SIM: Photosynthesis, SIM: Factors of Plant Growth, Part 2**
5-LS1.C	**Organization for Matter and Energy Flow in Organisms** Plants acquire their material for growth chiefly from air and water. (5-LS1-1)	**SCIENCE WORKSTATION ACTIVITY CARDS:** 10, 20	**Matter and Energy in Ecosystems** **TG: L2 pgs. 58-69, SIS 2A, SIS 2B, LA 2B** **SR pgs. 12-13** **Digital Resources: IWB: Food Chain** **TG: L1 pgs. 34-46, SIS 1B, SIS 1C** **SR pgs. 6-9** **Digital Resources: IWB: Biotic and Abiotic Factors, SIM: Photosynthesis, SIM: Factors of Plant Growth, Part 2** **TG: L4 pgs. 104-115, SIS 4A, SIS 4C, LA 4A** **SR pgs. 2-5** **Digital Resources: IWB: The Four Spheres of Earth, SIM: Water Cycle**

Grade 5 Science			
5-LS2	**Ecosystems: Interactions, Energy, and Dynamics**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
5-LS2-1	Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.	**SCIENCE WORKSTATION ACTIVITY CARDS:** 21, 23	<u>Matter and Energy in Ecosystems</u> **TG: L5 pgs. 132-144, SIS 5A, SIS 5B, SIS 5C, LA 5A** **SR pgs. 18-21** **Digital Resources: IWB: Pollution** **TG: L6 pgs. 168-170, SIS 6A** **TG: L1 pgs. 34-46, SIS 1B, SIS 1C** **SR pgs. 6-9** **Digital Resources: IWB: Biotic and Abiotic Factors, SIM: Photosynthesis, SIM: Factors of Plant Growth, Part 2** **TG: L2 pgs. 58-69, SIS 2A, SIS 2B, LA 2B** **SR pgs. 12-13** **Digital Resources: IWB: Food Chain** **TG: L3, pgs. 78-87, SIS 3A, SIS 3B, THS, LA 3B** **SR pgs. 12-17** **Digital Resources: SIM: Competition, SIM: Energy Cycles** **TG: L4 pgs. 104-115, SIS 4A, SIS 4C, LA 4A** **SR pgs. 2-5** **Digital Resources: IWB: The Four Spheres of Earth, SIM: Water Cycle**
5-LS2.A	**Interdependent Relationships in Ecosystems** The food of almost any kind of animal can be traced back to plants. Organisms are related in food webs in which some animals eat plants for food and other animals eat the animals that eat plants. Some organisms, such as fungi and bacteria, break down dead organisms (both plants or plants parts and animals) and therefore operate as "decomposers." Decomposition eventually restores (recycles) some materials back to the soil. Organisms can survive only in environments in which their particular needs are	**READING/WRITING WORKSHOP: Unit 5:** 362–363, 366–369; **Unit 6:** 406–407, 410–413 **LITERATURE ANTHOLOGY: Unit 3:** 214–215; **Unit 4:** 338-339; **Unit 5:** 424–427, 428–429; **Unit 6:** 468–483, 486–489 **LEVELED READERS: Unit 3, Week 2:** *Over the Top* (A), In *Drama Valley* (O, EL), *Welcome to the Wild* (B); **Unit 5, Week 5:** *The Great Plains* (A, O, EL, B); **Unit 6, Week 3:** *Cave Creatures* (A, O, EL, B) **SCIENCE WORKSTATION ACTIVITY CARDS:** 20, 21, 23 **TEACHER'S EDITION: Unit 3:** T89R, T104, T112, T116, T122; **Unit 4:** T217S-T217T; **Unit 5:** T266, T268, T273, T281A, T281B, T296, T304, T308, T312, T314; **Unit 6:** T138, T145, T153A, T153J, T153S, T156, T168, T176, T180, T184, T186	<u>Matter and Energy in Ecosystems</u> **TG: L3, pgs. 78-87, SIS 3A, SIS 3B, THS, LA 3B** **SR pgs. 12-17** **Digital Resources: SIM: Competition, SIM: Energy Cycles** **TG: L5 pgs. 132-144, SIS 5A, SIS 5B, SIS 5C, LA 5A** **SR pgs. 18-21** **Digital Resources: IWB: Pollution**

	met. A healthy ecosystem is one in which multiple species of different types are each able to meet their needs in a relatively stable web of life. Newly introduced species can damage the balance of an ecosystem. (5-LS2-1)		**TG: L4 pgs. 104-115, SIS 4A, SIS 4C, LA 4A** **SR pgs. 2-5** **Digital Resources: IWB: The Four Spheres of Earth, SIM: Water Cycle** **TG: L2 pgs. 58-69, SIS 2A, SIS 2B, LA 2B** **SR pgs. 12-13** **Digital Resources: IWB: Food Chain** **TG: L1 pgs. 34-46, SIS 1B, SIS 1C** **SR pgs. 6-9** **Digital Resources: IWB: Biotic and Abiotic Factors, SIM: Photosynthesis, SIM: Factors of Plant Growth, Part 2**

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Grade 5 Science			
5-LS2	**Ecosystems: Interactions, Energy, and Dynamics**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
5-LS2.B	**Cycles of Matter and Energy Transfer in Ecosystems** Matter cycles between the air and soil and among plants, animals, and microbes as these organisms live and die. Organisms obtain gases, and water, from the environment, and release waste matter (gas, liquid, or solid) back into the environment. (5-LS2-1)	**READING/WRITING WORKSHOP: Unit 5:** 334–335, 338–341; **Unit 6:** 424–427 **LITERATURE ANTHOLOGY: Unit 4:** 320-335; **Unit 5:** 384–397; **Unit 6:** 490–501 **LEVELED READERS: Unit 5, Week 3:** *Ocean Threats* (A, O, EL, B); **Unit 6, Week 4:** *Marjory Stoneman Douglas: Guardian of the Everglades* (A, O, EL, B) **SCIENCE WORKSTATION ACTIVITY CARDS:** 10, 13, 19, 20, 21, 23 **TEACHER'S EDITION: Unit 4:** T217E–T217J, T217O–T217P; **Unit 5:** T138, T140, T144, T153A, T153L, T156, T168, T176, T180, T186; **Unit 6:** T209, T217A, T217L, T220, T232, T240, T244, T250	<u>Matter and Energy in Ecosystems</u> **TG: L4 pgs. 104-115, SIS 4A, SIS 4C, LA 4A** **SR pgs. 2-5** **Digital Resources: IWB: The Four Spheres of Earth, SIM: Water Cycle** **TG: L5 pgs. 132-144, SIS 5A, SIS 5B, SIS 5C, LA 5A** **SR pgs. 18-21** **Digital Resources: IWB: Pollution** **TG: L6 pgs. 168-170, SIS 6A** **TG: L3, pgs. 78-87, SIS 3A, SIS 3B, THS, LA 3B** **SR pgs. 12-17** **Digital Resources: SIM: Competition, SIM: Energy Cycles** **TG: L2 pgs. 58-69, SIS 2A, SIS 2B, LA 2B** **SR pgs. 12-13** **Digital Resources: IWB: Food Chain**

Grade 5 Science			
5-ESS1	**Earth's Place in the Universe**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
5-ESS1-2.	Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky.	**SCIENCE WORKSTATION ACTIVITY CARDS:** 24	**Earth and Space Systems** **TG: L2 pgs. 58-69, SIS 2A, SIS 2B, SIS 2C, LA 2A** **SR pgs. 4-5** **Digital Resources: SIM: Earth's Rotation, SIM: Shadows** **TG: L3 pgs. 90-103, SIS 3A.1, SIS 3A.2, SIS 3B, SIS 3C, THS, LA 3A** **SR pgs. 4-9** **Digital Resources: SIM: Earth's Revolution, Earth and Moon, Phases of the Moon**
5-ESS1.A	**The Universe and its Stars** The sun is a star that appears larger and brighter than other stars because it is closer. Stars range greatly in their distance from Earth. (5-ESS1-1)	**LITERATURE ANTHOLOGY: Unit 5:** 419 **SCIENCE WORKSTATION ACTIVITY CARDS:** 24 **TEACHER'S EDITION: Unit 5:** T217P, T328	**Earth and Space Systems** **TG: L5 pgs. 176-185, SIS 5A** **Digital Resources: IWB: Human Impacts on Earth's Systems, IWB: Knowledge and Questions About Earth and Space Systems, IWB: What We Learned About Earth and Space Systems** **TG: L2 pgs. 58-69, SIS 2A, SIS 2B, SIS 2C, LA 2A** **SR pgs. 4-5** **Digital Resources: SIM: Earth's Rotation, SIM: Shadows**
5-ESS1.B	**Earth and the Solar System** The orbits of Earth around the sun and of the moon around Earth, together with the rotation of Earth about an axis between its North and South poles, cause observable patterns. These include day and night; daily changes in the length and direction of shadows; and different positions of the sun, moon, and stars at different times of the day, month, and year. (5-ESS1-2)	**SCIENCE WORKSTATION ACTIVITY CARDS:** 24	**Earth and Space Systems** **TG: L3 pgs. 90-103, SIS 3A.1, SIS 3A.2, SIS 3B, SIS 3C, THS, LA 3A** **SR pgs. 4-9** **Digital Resources: SIM: Earth's Revolution, Earth and Moon, Phases of the Moon** **TG: L5 pgs. 176-185, SIS 5A** **Digital Resources: IWB: Human Impacts on Earth's Systems, IWB: Knowledge and Questions About Earth and Space Systems, IWB: What We Learned About Earth and Space Systems** **TG: L2 pgs. 58-69, SIS 2A, SIS 2B, SIS 2C, LA 2A** **SR pgs. 4-5**

			Digital Resources: SIM: Earth's Rotation, SIM: Shadows **TG: L1 pgs. 32-44, SIS 1B.1, SIS 1B.2, SIS 1C** **SR pgs. 2-3, 8-9** **Digital Resources: IWB: Knowledge and Questions About Earth and Space Systems, SIM: Sun, Earth, Moon**
Grade 5 Science			
5-ESS2	**Earth's Systems**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
5-ESS2-1.	Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.	**LITERATURE ANTHOLOGY: Unit 3:** 216–229 **SCIENCE WORKSTATION ACTIVITY CARDS:** 13, 19, 23 **TEACHER'S EDITION: Unit 3:** T153C–T153D, T153L	**Earth and Space Systems** **TG: L4 pgs. 140-150, SIS 4A, SIS 4B, LA 4B** **SR pgs. 10-21, 23** **Digital Resources: IWB: Water Cycle, SIM: Water Cycle**
5-ESS2-2.	Describe and graph the amounts and percentages of water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth.	**SCIENCE WORKSTATION ACTIVITY CARDS:** 13, 19	**Earth and Space Systems** **TG: L4 pgs. 140-150, SIS 4A, SIS 4B, LA 4B** **SR pgs. 10-21, 23** **Digital Resources: IWB: Water Cycle, SIM: Water Cycle**
5-ESS2.A	**Earth Materials and Systems** Earth's major systems are the geosphere (solid and molten rock, soil, and sediments), the hydrosphere (water and ice), the atmosphere (air), and the biosphere (living things, including humans). These systems interact in multiple ways to affect Earth's surface materials and processes. The ocean supports a variety of ecosystems and organisms, shapes landforms, and influences climate. Winds and clouds in the atmosphere interact with the landforms to determine patterns of weather. (5-ESS2-1)	**READING/WRITING WORKSHOP: Unit 3:** 194–197 **LITERATURE ANTHOLOGY: Unit 3:** 216–229; **Unit 5:** 384-397 **LEVELED READERS: Unit 3, Week 3:** *Weather Patterns* (A, O, EL, B) **SCIENCE WORKSTATION ACTIVITY CARDS:** 13, 19, 23 **TEACHER'S EDITION: Unit 3:** T144–T145, T1534A, T153H, T168, T176, T180, T186; **Unit 5:** T153A–T153N	**Earth and Space Systems** **TG: L5 pgs. 176-185, SIS 5A** **Digital Resources: IWB: Human Impacts on Earth's Systems, IWB: Knowledge and Questions About Earth and Space Systems, IWB: What We Learned About Earth and Space Systems** **TG: L4 pgs. 140-150, SIS 4A, SIS 4B, LA 4B** **SR pgs. 10-21, 23** **Digital Resources: IWB: Water Cycle, SIM: Water Cycle**

Grade 5 Science			
5-ESS2	**Earth's Systems**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
5-ESS2.C	**The Roles of Water in Earth's Surface Processes** Nearly all of Earth's available water is in the ocean. Most fresh water is in glaciers or underground; only a tiny fraction is in streams, lakes, wetlands, and the atmosphere. (5-ESS2-2)	**LITERATURE ANTHOLOGY: Unit 3:** 216–229; **Unit 4:** 320–335 **SCIENCE WORKSTATION ACTIVITY CARDS:** 13, 19 **TEACHER'S EDITION: Unit 3:** T38, T39, T102, T103, T153C–T153D, T153L, T166, T167, T230, T231, T294, T295, T330, T331, T332; **Unit 4:** T217A, T217F, T217O–T217P **www.connected.mcgraw-hill.com: RESOURCES: InquirySpace:** Unit 3	**Earth and Space Systems** **TG: L4 pgs. 140-150, SIS 4A, SIS 4B, LA 4B** **SR pgs. 10-21, 23** **Digital Resources: IWB: Water Cycle, SIM: Water Cycle** **TG: L5 pgs. 176-185, SIS 5A** **Digital Resources: IWB: Human Impacts on Earth's Systems, IWB: Knowledge and Questions About Earth and Space Systems, IWB: What We Learned About Earth and Space Systems**
5-ESS3	**Earth and Human Activity**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
5-ESS3-1.	Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.	**READING/WRITING WORKSHOP: Unit 3:** 208–211; **Unit 4:** 280–283 **LITERATURE ANTHOLOGY: Unit 1:** 90–93 **LEVELED READERS: Unit 4, Week 4:** *The Delta* (A, O, El, B) **SCIENCE WORKSTATION ACTIVITY CARDS:** 12, 14, 25, 29 **TEACHER'S EDITION: Unit 1:** T281A–T281D, T328; **Unit 2:** T38, T39, T102, T103, T166, T167, T230, T231, T294, T295, T328, T330, T331, T332; **Unit 3:** T208, T248, T328; **Unit 4:** T208–T209, T220, T232, T240, T244, T250, T328; **Unit 6:** T328 **www.connected.mcgraw-hill.com: RESOURCES: InquirySpace:** Unit 2	**Earth and Space Systems** **TG: L5 pgs. 176-185, SIS 5A** **Digital Resources: IWB: Human Impacts on Earth's Systems, IWB: Knowledge and Questions About Earth and Space Systems, IWB: What We Learned About Earth and Space Systems**
5-PS1	**Matter and Its Interactions**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
5-PS1-1.	Develop a model to describe that matter is made of particles too small to be seen.	**SCIENCE WORKSTATION ACTIVITY CARDS:** 7	**Structure and Properties of Matter** **TG: L2 pgs. 62-75, SIS 2A, SIS 2B, SIS 2C, LA 2B** **SR pgs. 6-7** **Digital Resources: SIM: Particle Attraction, SIM: States of Water** **TG: L6 pgs. 170-179, SIS 6A** **SR pg. 21**
5-PS1-2.	Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved.	**SCIENCE WORKSTATION ACTIVITY CARDS:** 7, 9, 12	**Structure and Properties of Matter** **TG: L6 pgs. 170-179, SIS 6A** **SR pg. 21** **TG: L2 pgs. 62-75, SIS 2A, SIS 2B, SIS 2C, LA 2B** **SR pgs. 6-7** **Digital Resources: SIM: Particle Attraction, SIM: States of Water**

Grade 5 Science			
5-PS1	**Matter and Its Interactions**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
5-PS1-3.	Make observations and measurements to identify materials based on their properties.	**SCIENCE WORKSTATION ACTIVITY CARDS:** 7, 9, 12	**Structure and Properties of Matter** **TG: L3 pgs. 92-101, SIS 3A, SIS 3B.1, SIS 3B.2, LA 3A** **SR pgs. 8-13** **Digital Resources: SIM: Hardness, Buoyancy, Magnetism, SIM: Layering by Density, SIM: Viscosity Racetrack** **TG: L2 pgs. 62-75, SIS 2A, SIS 2B, SIS 2C, LA 2B** **SR pgs. 6-7** **Digital Resources: SIM: Particle Attraction, SIM: States of Water** **TG: L1 pgs. 34-48, SIS 1B, SIS 1C, THS** **SR pgs. 2-5** **Digital Resources: IWB: Our Ideas and Questions about Matter, SIM: Balloon Properties, SIM: Displacement, SIM: Volume and Mass** **TG: L6 pgs. 170-179, SIS 6A** **SR pg. 21**
5-PS1-4.	Conduct an investigation to determine whether the mixing of two or more substances results in new substances.	**SCIENCE WORKSTATION ACTIVITY CARDS:** 8, 9, 12	**Structure and Properties of Matter** **TG: L4 pgs. 116-128, SIS 4A, SIS 4B, SIS 4C, LA 4B** **SR pgs. 14-17** **Digital Resources: SIM: Create a Mixture**

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Grade 5 Science			
5-PS1	**Matter and Its Interactions**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
5-PS1.A	**Structure and Properties of Matter** Matter of any type can be subdivided into particles that are too small to see, but even then the matter still exists and can be detected by other means. A model shows that gases are made from matter particles that are too small to see and are moving freely around in space can explain many observations, including the inflation and shape of a balloon; the effects of air on larger particles or objects. (5-PS1-1) • The amount (weight) of matter is conserved when it changes form, even in transitions in which it seems to vanish. (5-PS1-2) • Measurements of a variety of properties can be used to identify materials. (Boundary: At this grade level, mass and weight are not distinguished, and no attempt is made to define the unseen particles or explain the atomic-scale mechanism of evaporation and condensation.) (5-PS13)	**SCIENCE WORKSTATION ACTIVITY CARDS:** 7, 9	<u>Structure and Properties of Matter</u> **TG: L5 pgs. 148-159, SIS 5A, SIS 5B, LA 5B** **SR pgs. 18-20** **Digital Resources: IWB: Physical and Chemical Changes, SIM: Chemical Reactions** **TG: L6 pgs. 170-179, SIS 6A** **SR pg. 21** **TG: L4 pgs. 116-128, SIS 4A, SIS 4B, SIS 4C, LA 4B** **SR pgs. 14-17** **Digital Resources: SIM: Create a Mixture** **TG: L3 pgs. 92-101, SIS 3A, SIS 3B.1, SIS 3B.2, LA 3A** **SR pgs. 8-13** **Digital Resources: SIM: Hardness, Buoyancy, Magnetism, SIM: Layering by Density, SIM: Viscosity Racetrack** **TG: L2 pgs. 62-75, SIS 2A, SIS 2B, SIS 2C, LA 2B** **SR pgs. 6-7** **Digital Resources: SIM: Particle Attraction, SIM: States of Water** **TG: L1 pgs. 34-48, SIS 1B, SIS 1C, THS** **SR pgs. 2-5** **Digital Resources: IWB: Our Ideas and Questions about Matter, SIM: Balloon Properties, SIM: Displacement, SIM: Volume and Mass**
5-PS1.B	**Chemical Reactions** • When two or more different substances are mixed, a new substance with different properties may be formed. (5-PS1-4) • No matter what reaction or change in properties occurs, the total weight of the substances does	**LITERATURE ANTHOLOGY: Unit 2:** 172–175 **SCIENCE WORKSTATION ACTIVITY CARDS:** 8, 9 **TEACHER'S EDITION: Unit 2:** T217Q, T217T	<u>Structure and Properties of Matter</u> **TG: L4 pgs. 116-128, SIS 4A, SIS 4B, SIS 4C, LA 4B** **SR pgs. 14-17** **Digital Resources: SIM: Create a Mixture** **TG: L5 pgs. 148-159, SIS 5A, SIS 5B, LA 5B**

	not change. (Boundary: Mass and weight are not distinguished at this grade level.) (5-PS1-2)		**SR pgs. 18-20** **Digital Resources: IWB: Physical and Chemical Changes, SIM: Chemical Reactions** **TG: L6 pgs. 170-179, SIS 6A** **SR pg. 21**
Grade 5 Science			
5-PS3	**Energy**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
5-PS3-1.	Use models to describe that energy in animals' food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the sun.	**SCIENCE WORKSTATION ACTIVITY CARDS:** 10, 20	**Matter and Energy in Ecosystems** **TG: L2 pgs. 58-69, SIS 2A, SIS 2B, LA 2B** **SR pgs. 12-13** **Digital Resources: IWB: Food Chain**
5-5-PS3.D	**Energy in Chemical Processes and Everyday Life** The energy released [from] food was once energy from the sun that was captured by plants in the chemical process that forms plant matter (from air and water). (5-PS3-1)	**SCIENCE WORKSTATION ACTIVITY CARDS:** 10, 20	**Matter and Energy in Ecosystems** **TG: L4 pgs. 104-115, SIS 4A, SIS 4C, LA 4A** **SR pgs. 2-5** **Digital Resources: IWB: The Four Spheres of Earth, SIM: Water Cycle** **TG: L3, pgs. 78-87, SIS 3A, SIS 3B, THS, LA 3B** **SR pgs. 12-17** **Digital Resources: SIM: Competition, SIM: Energy Cycles** **TG: L5 pgs. 132-144, SIS 5A, SIS 5B, SIS 5C, LA 5A** **SR pgs. 18-21** **Digital Resources: IWB: Pollution** **TG: L6 pgs. 168-170, SIS 6A** **TG: L2 pgs. 58-69, SIS 2A, SIS 2B, LA 2B** **SR pgs. 12-13** **Digital Resources: IWB: Food Chain** **TG: L1 pgs. 34-46, SIS 1B, SIS 1C** **SR pgs. 6-9** **Digital Resources: IWB: Biotic and Abiotic Factors, SIM: Photosynthesis, SIM: Factors of Plant Growth, Part 2**

Grade 5 Science			
3-5-ETS1	**Engineering Design**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
3-5-ETS1-1.	Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.	**SCIENCE WORKSTATION ACTIVITY CARDS:** 4, 5, 12, 14	**Matter and Energy in Ecosystems** **TG: L5 pgs. 132-144, SIS 5A, SIS 5B, SIS 5C, LA 5A** **Earth and Space Systems** **TG: L5 pgs. 176-185, SIS 5A** **TG: L4 pgs. 140-150, SIS 4A, SIS 4B** **Structure and Properties of Matter** **TG: L6 pgs. 170-179, SIS 6A** **TG: L2 pgs. 62-75, SIS 2A, SIS 2B, SIS 2C**
3-5-ETS1-2.	Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.	**SCIENCE WORKSTATION ACTIVITY CARDS:** 4, 5, 12, 14	**Structure and Properties of Matter** **TG: L6 pgs. 170-179, SIS 6A** **TG: L2 pgs. 62-75, SIS 2A, SIS 2B, SIS 2C** **Earth and Space Systems** **TG: L5 pgs. 176-185, SIS 5A** **TG: L4 pgs. 140-150, SIS 4A, SIS 4B** **Matter and Energy in Ecosystems** **TG: L6 pgs. 168-174, SIS 6A**
3-5-ETS1-3.	Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.	**SCIENCE WORKSTATION ACTIVITY CARDS:** 4, 5, 12, 14	**Matter and Energy in Ecosystems** **TG: L6 pgs. 168-174, SIS 6A** **Structure and Properties of Matter** **TG: L6 pgs. 170-179, SIS 6A**
3-5 ETS1.A	**Defining and Delimiting Engineering Problems** Possible solutions to a problem are limited by available materials and resources (constraints). The success of a designed solution is determined by considering the desired features of a solution (criteria). Different proposals for solutions can be compared on the basis of how well each one meets the specified criteria for success or how well each takes the constraints into account. (3-5-ETS1-1)	**READING/WRITING WORKSHOP: Unit 2:** 118–119 **LEVELED READERS: Unit 1, Week 4:** *Snapshot! The Story of George Eastman* (A, O, EL, B) **SCIENCE WORKSTATION ACTIVITY CARDS:** 12, 14 **TEACHER'S EDITION: Unit 1:** T232, T240, T244, T250; **Unit 2:** T138	**Structure and Properties of Matter** **TG: L6 pgs. 170-179, SIS 6A** **Matter and Energy in Ecosystems** **TG: L6 pgs. 168-174, SIS 6A** **Earth and Space Systems** **TG: L5 pg. 176-185, SIS 5A** **TG: L4 pg. 140-150, SIS 4A, SIS 4B**

Grade 5 Science			
3-5-ETS1	**Engineering Design**	***McGraw-Hill California Wonders***	***Building Blocks of Science 3D***
3-5 ETS1.B	**Developing Possible Solutions** Research on a problem should be carried out before beginning to design a solution. • Testing a solution involves investigating how well it performs under a range of likely conditions. (3-5-ETS1-2) • At whatever stage, communicating with peers about proposed solutions is an important part of the design process, and shared ideas can lead to improved designs. (3-5-ETS1-2) • Tests are often designed to identify failure points or difficulties, which suggest the elements of the design that need to be improved. (3-5-ETS1-3)	**READING/WRITING WORKSHOP: Unit 1:** 78–81 **LITERATURE ANTHOLOGY: Unit 1:** 68–83, 90–93; **Unit 2:** 138–149 **LEVELED READERS: Unit 1, Week 5:** *What About Robots?* (A, O, EL, B) **SCIENCE WORKSTATION ACTIVITY CARDS:** 12, 14 **TEACHER'S EDITION: Unit 1:** T217J, T220, T273, T281A, T296, T304, T308, T314; **Unit 2:** T153A, T153L; **Unit 4:** T92; **Unit 5:** T220	**Structure and Properties of Matter** **TG: L6 pgs. 170-179, SIS 6A** **TG: L2 pgs. 62-75, SIS 2A, SIS 2B, SIS 2C** **Earth and Space Systems** **TG: L5 pg. 176-185, SIS 5A** **TG: L4 pg. 140-150, SIS 4A, SIS 4B** **Matter and Energy in Ecosystems** **TG: L6 pgs. 168-174, SIS 6A**
3-5 ETS1.C	**Optimizing the Design Solution** Different solutions need to be tested in order to determine which of them best solves the problem, given the criteria and the constraints. (3-5-ETS1-3)	**LITERATURE ANTHOLOGY: Unit 1:** 68–83; **Unit 3:** 236–249, 252–255; **Unit 5:** 424–427 **LEVELED READERS: Unit 3, Week 4:** *The Power of a Team* (A,O,EL,B) **TEACHER'S EDITION: Unit 1:** T92, T217A, T281B; **Unit 3:** T217L, T217Q, T232, T240, T244, T250; **Unit 5:** T281C, T281D	**Structure and Properties of Matter** **TG: L6 pgs. 170-179, SIS 6A** **Matter and Energy in Ecosystems** **TG: L6 pgs. 168-174, SIS 6A**

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