



Upgrading to FOSS® Next Generation

Table of Contents Comparison to Second Edition ©2005/2009

Materials and Motion Next Generation Grade K Physical Science	Wood and Paper Second Edition Grade K Physical Science
Investigation 1: Getting to Know Wood	Investigation 1: Getting to Know Wood
Part 1: Observing Wood	Investigation 1, Part 1 "Introduction to Wood Samples" combined with Part 2 "Wood Hunt"
Part 2: Wood and Water	Investigation 1, Part 3
Part 3: Testing a Raft	Investigation 1, Part 4 "Sink the Pine and Plywood"
Part 4: Sanding Wood	Investigation 2, Part 1
Part 5: Sawdust and Shavings	Investigation 2, Part 2
Part 6: Making Particleboard	Investigation 2, Part 3 "Making Sawdust Wood"
Part 7: Making Plywood	Investigation 2, Part 2 "Making Sandwich"
Investigation 2: Getting to Know Paper	Investigation 3: Getting to Know Paper
Part 1: Paper Hunt	Investigation 3, Part 1
Part 2: Using Paper	Investigation 3, Part 2 "Writing and Drawing on Paper" and Part 3 "Folding Paper"
Part 3: Paper and Water	Investigation 3, Part 4
Part 4: Paper Recycling	Investigation 4, Part 1
Part 5: Papier-Mâché	Investigation 4, Part 1
Investigation 3: Getting to Know Fabric	Investigation 1: Fabric All Around Investigation 2: Fabric Interactions
Part 1: Feely Boxes and Fabric Hunt	Fabric, 2nd Ed. Investigation 1, Parts 1 "Exploration and Feely Boxes" and Part 2 "Fabric Hunt"
Part 2: Taking Fabric Apart	Fabric, 2nd Ed. Investigation 1, Part 4 "Taking Fabric Away"
Part 3: Water and Fabric	Fabric, 2nd Ed. Investigation 2, Part 1
Part 4: Graphing Fabric Uses	Fabric, 2nd Ed. Investigation 2, Part 4
Part 5: Reuse and Recycling Resources (NEW!)	N/A
Part 6: Building Structures	Investigation 5, Part 3 "Wood and Paper Sculptures"
Investigation 4: Motion (NEW!)	New for Next Generation
Part 1: Pushes and Pulls (NEW!)	N/A
Part 2: Colliding Objects (NEW!)	N/A
Part 3: Rolling Outdoors (NEW!)	N/A
Part 4: Balloon Rockets (NEW!)	N/A

Engineering Investigations

Investigations of the same name are similar—but not identical—to the previous edition.



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Animals Two by Two Next Generation Grade K Life Science	Animals Two by Two Second Edition Grade K Life Science
Investigation 1: Goldfish and Guppies	Investigation 1: Goldfish and Guppies
Part 1: The Structure of Goldfish	Same
Part 2: Caring for Goldfish	Same
Part 3: Goldfish Behavior	Same
Part 4: Comparing Guppies to Goldfish	Same
Part 5: Comparing Schoolyard Birds (NEW!)	N/A
Investigation 2: Water and Land Snails	Investigation 2: Land and Water Snails
Part 1: Observing Water Snails	Investigation 2, Part 3
Part 2: Shells	Investigation 2, Part 4
Part 3: Land Snails	Investigation 2, Part 1
Investigation 3: Big and Little Worms	Investigation 3: Big and Little Worms
Part 1: The Structure of Redworms	Same
Part 2: Redworm Behavior	Same
Part 3: Comparing Redworms to Night Crawlers	Same
Investigation 4: Pill Bugs and Sow Bugs	Investigation 4: Pill Bugs and Sow Bugs
Part 1: Isopod Observations	Same
Part 2: Identifying Isopods	Same
Part 3: Isopod Movement	Investigation 3, Part 3 "Isopod Races"
Part 4: Animals Living Together	Same

Investigations of the same name are similar—but not identical—to the previous edition.



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Table of Contents Comparison to Second Edition ©2005/2009

Trees and Weather Next Generation Grade K Earth Science	Trees Second Edition Grade K Earth Science
Investigation 1: Observing Trees	Investigation 1: Fall Trees
Part 1: Observing Schoolyard Trees	Investigation 1, Part 1 "Looking at Schoolyard Trees"
Part 2: Tree Parts	Investigation 1, Part 5 "Tree-Part Cards"
Part 3: Tree Puzzles	Same
Part 4: Tree-Silhouette Cards	Same
Part 5: Adopt Schoolyard Trees	Same
Part 6: A Tree Comes to Class	Investigation 1, Part 8 "Plant the Class Tree"
Investigation 2: Observing Leaves	Investigation 2: Leaves
Part 1: Leaf Walk	Same
Part 2: Leaf Shapes	Same
Part 3: Comparing Leaves	Same
Part 4: Matching Leaf Silhouettes	Investigation 2, Part 4 "Outlines" and Part 5 "Games"
Part 5: Leaf Books	Investigation 2, Part 6 "Leaf Books"
Investigation 3: Observing Weather	Investigation 3: Wind Explorations
Part 1: Weather Calendar	Air and Weather, 2nd Ed. Investigation 3, Part 1 "Weather Calendar"
Part 2: Recording Temperature	Air and Weather, 2nd Ed. Investigation 3, Part 2
Part 3: Wind Direction (NEW!) ⚙️	N/A
Investigation 4: Trees through the Seasons	Investigation 3: Trees through the Seasons
Part 1: Fall: What Comes from Trees?	Investigation 3, Part 1 "What Comes from a Fall Tree?"
Part 2: Fall: Food from Trees	Investigation 3, Part 2 "Food from Trees"
Part 3: Fall: Visiting Adopted Trees	Investigation 3, Part 3 "Visiting Adopted Trees in the Fall"
Part 4: Winter: Evergreen Hut	Investigation 3, Part 4
Part 5: Winter: Twigs	Investigation 3, Part 5
Part 6: Winter: Visiting Adopted Trees	Investigation 3, Part 6 "Visiting Adopted Trees in Winter"
Part 7: Spring: Forcing Twigs	Investigation 3, Part 7 "Forcing Spring Twigs"
Part 8: Spring: Bark Hut	Investigation 3, Part 8
Part 9: Spring: Visiting Adopted Trees	Investigation 3, Part 9 "Visiting Adopted Trees in Spring"

⚙️ Engineering Investigations

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Table of Contents Comparison to Second Edition ©2005/2009

Air and Weather Next Generation Grade 1 Earth Science	Air and Weather Second Edition Grades 1-2 Earth Science
Investigation 1: Exploring Air	Investigation 1: Exploring Air
Part 1: Air Is There	Same
Part 2: Parachutes	Investigation 1, Part 3
Part 3: Pushing on Air	Investigation 1, Part 4
Part 4: Air and Water	Investigation 1, Part 2 "Air Under Water"
Part 5: Balloon Rockets	Investigation 1, Part 6
Investigation 2: Observing the Sky	Investigation 2: Observing Weather
Part 1: Weather Calendars	Same
Part 2: Measuring Temperature and Daylight	Same
Part 3: Watching Clouds	Same
Part 4: Observing the Moon	Investigation 4, Part 3 "The Night Sky"
Investigation 3: Wind Explorations	Investigation 3: Wind Explorations
Part 1: Bubbles in the Wind	Same
Part 2: Wind Speed	Same
Part 3: Pinwheels	Same
Part 4: Wind Vanes	Same
Part 5: Kites	Same
Investigation 4: Looking for Change	Investigation 4: Looking for Change
Part 1: Changes over a Month	Investigation 4, Part 1 "Weather Graphs"
Part 2: Daylight throughout the Year (NEW!)	N/A
Part 3: Comparing the Seasons	Investigation 4, Part 2



Engineering Investigations

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Table of Contents Comparison to Second Edition ©2005/2009

Plants and Animals Next Generation Grade 1 Life Science	Plants and Animals Second Edition Grades 1-2 Life Science
Investigation 1: Grass and Grain Seeds	Investigation 1: Grass and Grain Seeds
Part 1: Lawns	Same
Part 2: Mowing the Lawn	Same
Part 3: Wheat	Same
Part 4: Variation in Plants and Animals (NEW!)	N/A
Investigation 2: Stems	Investigation 2: Stems
Part 1: Rooting Stem Cuttings	Same
Part 2: Spuds	Same
Part 3: New Plants from Cuttings	Same
Investigation 3: Terrariums	Investigation 3: Terrariums
Part 1: Setting Up Terrariums 	Same
Part 2: Animals in the Terrarium 	Investigation 2, Part 2 "Recording Changes"
Part 3: Habitat Match	Same
Part 4: Squirrel Behavior (NEW!)	N/A
Investigation 4: Growth and Change	Investigation 4: Bulbs and Roots
Part 1: Planting Bulbs	Part 1 "Bulbs"
Part 2: Planting Roots	Part 2 "Planting and Eating Roots"
Part 3: Plant and Animal Growth (NEW!)	N/A

 Engineering Investigations

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Table of Contents Comparison to Second Edition ©2005/2009

Sound and Light Next Generation Grade 1 Physical Science	NEW MODULE for NEXT GENERATION! No conversion kit available
Investigation 1: Sound and Vibrations	New for Next Generation
Part 1: Making Sounds	Modified from Physics of Sound, 2nd Ed. Investigation 1, Part 3 “Sound and Vibrations”
Part 2: Hearing Sounds (NEW!)	N/A
Part 3: Outdoor Sounds (NEW!)	N/A
Investigation 2: Changing Sound	
Part 1: Changing Volume	Modified from Physics of Sound, 2nd Ed. Investigation 2 “Good Vibrations,” Part 1 “Vibrations and Pitch”
Part 2: Changing Pitch	Modified from Physics of Sound, 2nd Ed. Investigation 2 “Good Vibrations,” Part 1 “Vibrations and Pitch”
Part 3: Spoon-Gong Systems	Modified from Physics of Sound, 2nd Ed. Investigation 3 “How Sound Travels,” Parts 1 and 2
Part 4: Sound Challenges ⚙️	Modified from Physics of Sound, 2nd Ed. Investigation 4 “Sound Challenges,” Part 1
Investigation 3: Light and Shadows	New for Next Generation
Part 1: Making Shadows (NEW!)	N/A
Part 2: Sun and Shadows (NEW!)	N/A
Part 3: Light and Materials (NEW!)	N/A
Investigation 4: Light and Mirrors	
Part 1: Mirrors and Light Beams	Modified from Ideas and Inventions, 2nd Ed. Investigation 4 “Reflecting,” Part 1 “Mirror Images”
Part 2: Reflections	Modified from Ideas and Inventions, 2nd Ed. Investigation 4 “Reflecting,” Part 1 “Mirror Images”
Part 3: Eyes and Seeing (NEW!) ⚙️	N/A
Part 4: Designing with Light (NEW!) ⚙️	N/A






⚙️ Engineering Investigations

Investigations of the same name are similar—but not identical—to the previous edition.



Upgrading to FOSS® Next Generation

Table of Contents Comparison to Second Edition ©2005/2009

Pebbles, Sand, and Silt Next Generation Grade 2 Earth Science	Pebbles, Sand, and Silt Second Edition Grades 1-2 Earth Science
Investigation 1: First Rocks	Investigation 1: First Rocks
Part 1: Three Rocks	Same
Part 2: Washing Three Rocks	Same
Part 3: First Sorting	Same
Part 4: Starting a Rock Collection	Investigation 1, Part 5 "Rock Collection"
Part 5: Sorting Activities	Investigation 1, Part 4 "Sorting Games"
Investigation 2: River Rocks	Investigation 2: River Rocks
Part 1: Screening River Rocks	Same
Part 2: River Rocks by Size	Same
Part 3: Sand and Silt	Same
Part 4: Exploring Clay and Landforms	Modified from Part 4 "Exploring Clay"
Investigation 3: Using Rocks	Investigation 3: Using Rocks
Part 1: Rocks in Use	Same
Part 2: Observing Sandpaper 	Same
Part 3: Sand Sculptures 	Same
Part 4: Clay Beads 	Same
Part 5: Making Bricks 	Same
Investigation 4: Soil and Water	Investigation 4: Soil Explorations
Part 1: Homemade Soil	Same
Part 2: Local Soil 	Investigation 4, Part 3 "Studying Local Soil"
Part 3: Natural Sources of Water (NEW!)	N/A
Part 4: Land and Water (NEW!)	N/A

 Engineering Investigations

Investigations of the same name are similar—but not identical—to the previous edition.



Upgrading to FOSS® Next Generation

Table of Contents Comparison to Second Edition ©2005/2009

Insects and Plants Next Generation Grade 2 Life Science	Insects and Plants Second Edition Grades 1-2 Life Science
Investigation 1: Mealworms	Investigation 1: Mealworms
Part 1: Mealworms	Same
Part 2: Larva, Pupa, Adult	Same
Part 3: Life Cycle	Same
Investigation 2: Brassica Seeds	Investigation 2: Brassica Seeds
Part 1: Planting Brassica	Investigation 2, Part 2
Part 2: Observing Brassica Growth <i>Focus on developing a simple model</i>	Investigation 2, Part 3
Part 3: Plant Life Cycle (NEW!)	N/A
Part 4: Planting Outdoors (NEW!)	N/A
Investigation 3: Milkweed Bugs	Investigation 3: Milkweed Bugs
Part 1: Eggs	Same
Part 2: Habitats	Same
Part 3: Growing Milkweed Bugs	Same
Part 4: Insect Search (NEW!) ⚙️	N/A
Investigation 4: Silkworms	Investigation 4: Silkworms
Part 1: Eggs and Larva	Investigation 4, Part 1 "Eggs" and Part 2 "Larvae"
Part 2: Silkworm Structures	Investigation 4, Part 4
Part 3: Pupae and Adults	Investigation 4, Part 5
Part 4: Plant Eaters (NEW!)	N/A
Investigation 5: Butterflies	Investigation 5: Butterflies
Part 1: Caterpillars	Same
Part 2: Chrysalises ⚙️	Same
Part 3: Adult Butterflies	Same
Part 4: Flower Powder (NEW!)	N/A


⚙️ Engineering Investigations

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Upgrading to FOSS® Next Generation

Table of Contents Comparison to Second Edition ©2005/2009

Solids and Liquids Next Generation Grade 2 Physical Science	Solids and Liquids Second Edition Grades 1-2 Physical Science
Investigation 1: Solids	Investigation 1: Solids
Part 1: Solid Objects	Investigation 1, Part 1 "Introduce Solids"
Part 2: Solid Materials (NEW!)	N/A
Part 3: Group Solid Objects	Investigation 1, Part 2 "Sort Solid Objects"
Part 4: Construct with Solids 	Part 3
Part 5: Outdoor Solids (NEW!)	N/A
Investigation 2: Liquids	Investigation 2: Liquids
Part 1: Liquids in Bottles	Same
Part 2: Properties of Liquids	Same
Part 3: Liquid Level	Same
Part 4: Puddles (NEW!)	N/A
Investigation 3: Bits and Pieces	Investigation 3: Bits and Pieces
Part 1: Solids in Containers	Same
Part 2: Separating Soup Mix	Same
Part 3: Solids in Bottles	Same
Part 4: Beads and Screens	Investigation 1, Part 4 "Separating Beads with a Screen"
Part 5: Spills (NEW!)	N/A
Investigation 4: Solids, Liquids, and Water	Investigation 4: Solids and Liquids with Water
Part 1: Solids and Water	Same
Part 2: Liquids and Water	Same
Part 3: Toothpaste Investigation	Same
Part 4: Changing Properties (NEW!)	N/A
Part 5: Tea Time (NEW!)	N/A

 Engineering Investigations

Investigations of the same name are similar—but not identical—to the previous edition.



Upgrading to FOSS® Next Generation

Table of Contents Comparison to Second Edition ©2005/2009

Motion and Matter Next Generation Grade 3 Physical Science	NEW MODULE for NEXT GENERATION! No conversion kit available
Investigation 1: Forces (NEW!)	New for Next Generation
Part 1: Two Forces (NEW!)	N/A
Part 2: Magnetic-Force Investigation (NEW!)	N/A
Part 3: More about Forces (NEW!)	N/A
Investigation 2: Patterns of Motion	Investigation 2: Spinners Investigation 3: Rollers
Part 1: Wheel-and-Axle Systems	Balance and Motion, 2nd Ed. Investigation 3 "Rollers," Part 1 "Rolling Wheels"
Part 2: Predicting Motion of New Systems	Balance and Motion, 2nd Ed. Investigation 3 "Rollers," Part 2 "Rolling Cups"
Part 3: Twirly Birds	Balance and Motion, 2nd Ed. Investigation 2 "Spinners," Part 3 "Twirlers"
Part 4: Tops	Balance and Motion, 2nd Ed. Investigation 2 "Spinners," Part 1 "Tops"
Investigation 3: Engineering (NEW!)	New for Next Generation
Part 1: From Here to There (NEW!) ⚙️	Modified from Models and Designs, 2nd Ed. Investigation 3 "Go-Carts," Part 1 "Free-Rolling Go-Carts"
Part 2: Distance Challenge (NEW!) ⚙️	N/A
Part 3: Investigating Start Position (NEW!) ⚙️	N/A
Part 4: Cart Tricks (NEW!) ⚙️	Modified from Models and Designs, 2nd Ed. Investigation 4 "Cart Tricks," Parts 1 and 2
Investigation 4: Mixtures	Investigation 4: Changing Matter
Part 1: Mixing Solids and Liquids (NEW!)	N/A
Part 2: Reactions	Matter and Energy, 2nd Ed. Investigation 4 "Changing Matter," Part 3
Part 3: Metric Field Day	Matter and Energy, 2nd Ed. Investigation 4 "Changing Matter," Part 3


⚙️ *Engineering Investigations*


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Table of Contents Comparison to Second Edition ©2005/2009

Structures of Life Next Generation Grade 3 Life Science	Structures of Life Second Edition Grade 3-4 Life Science
Investigation 1: Origin of Seeds	Investigation 1: Origin of Seeds
Part 1: Seed Search	Same
Part 2: The Sprouting Seed	Same
Part 3: Seed Soak	Same
Part 4: Seed Dispersal (NEW!) 	N/A
Investigation 2: Growing Further	Investigation 2: Growing Further
Part 1: Germination and Growth	Same
Part 2: Life Cycle of the Bean	Part 3
Part 3: Roots and Shoots (NEW!)	N/A
Investigation 3: Meet the Crayfish	Investigation 3: Meet the Crayfish
Part 1: Crayfish Structures (NEW!)	N/A
Part 2: Adaptation (NEW!)	N/A
Part 3: Crayfish Territory	Part 4
Part 4: Compare Crayfish to Other Animals (NEW!)	N/A
Part 5: Food Chains (NEW!)	N/A
Investigation 4: Human Body	Investigation 1: Bones Investigation 2: Joints Investigation 3: Muscles
Part 1: Counting Bones	Human Body, 2nd Ed. Investigation 1, Part 1
Part 2: Owl Pellets	Human Body, 2nd Ed. Investigation 1, Part 3
Part 3: Joints and Muscles	Human Body, 2nd Ed. Investigations 2 and 3
Part 4: Fingerprints	Ideas and Inventions, 2nd Ed. Investigation 2, Part 1 "Intro to Carbon Printing"

 Engineering Investigations

Investigations of the same name are similar—but not identical—to the previous edition.



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Table of Contents Comparison to Second Edition ©2005/2009

Water and Climate Next Generation Grade 3 Earth Science	Water Second Edition Grade 3-4 Earth Science
Investigation 1: Water Observations	Investigation 1: Water Observations
Part 1: Drops of Water	Same
Part 2: Water on a Slope	Same
Part 3: Soaking Sponges	Measurement, 2nd Ed. Investigation 2, Part 3
Part 4: Water in Nature	Same
Investigation 2: Hot Water, Cold Water	Investigation 2: Hot Water, Cold Water
Part 1: Measuring Temperature	Measurement, 2nd Ed. Investigation 4, Part 1 and Matter and Energy, 2nd Ed. Investigation 4, Part 1
Part 2: Build a Thermometer	Investigation 2, Part 1
Part 3: Sinking and Floating Water	Investigation 2, Part 2
Part 4: Water as Ice	Investigation 2, Part 3
Part 5: Ice Outdoors (NEW!)	N/A
Investigation 3: Weather and Water	Investigation 3: Water Vapor
Part 1: Measuring Water (NEW!)	N/A
Part 2: Evaporation	Same
Part 3: Surface Area	Same
Part 4: Evaporation Locations	Same
Part 5: Condensation	Same
Investigation 4: Seasons and Climate (NEW!)	New for Next Generation
Part 1: Seasonal Weather (NEW!)	N/A
Part 2: Describing Climate (NEW!)	N/A
Part 3: Weather-Related Natural Hazards (NEW!)	N/A
Investigation 5: Waterworks	Investigation 4: Waterworks
Part 1: Water in Earth Materials	Investigation 4, Part 1
Part 2: Water in Soil (NEW!)	N/A
Part 3: Waterwheels	Investigation 4, Part 2

Engineering Investigations

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Table of Contents Comparison to Second Edition ©2005/2009

Energy Next Generation Grade 4 Physical Science	Magnetism and Electricity Second Edition Grades 3-4 Physical Science
Investigation 1: Energy and Circuits	Investigation 2: Making Connections Investigation 3: Advanced Connections
Part 1: Lighting a Bulb	Investigation 2, Part 2
Part 2: Conductors and Circuits	Investigation 2, Part 4 "Conductors and Insulators"
Part 3: Series and Parallel Circuits	Investigation 3, Parts 1 and 2
Part 4: Solving the String-of-Lights Problem ⚙️	Investigation 3, Part 3 "String-of-Lights Problem"
Investigation 2: The Force of Magnetism	Investigation 1: The Force
Part 1: Magnets and Materials	Investigation 1, Part 1
Part 2: Magnetic Fields	Investigation 1, Part 4 "Detecting Magnetic Fields"
Part 3: Magnetic Force	Investigation 1, Part 3 "Breaking the Force"
Investigation 3: Electromagnets	Investigation 4: Current Attractions Investigation 5: Click It
Part 1: Building an Electromagnet ⚙️	Investigation 4, Part 1
Part 2: Changing the Strength	Investigation 4, Part 2 "Number of Winds"
Part 3: Reinventing the Telegraph ⚙️	Investigation 5, Part 1
Investigation 4: Energy Transfer (NEW!)	New for Next Generation
Part 1: Presence of Energy	Matter and Energy, 2nd Edition Investigation 1 "Energy," Part 4
Part 2: Rolling Balls Down Slopes (NEW!)	N/A
Part 3: Collisions (NEW!)	N/A
Investigation 5: Waves (NEW!)	New for Next Generation
Part 1: Forms of Waves (NEW!)	N/A
Part 2: Light Travels	Matter and Energy, 2nd Ed. Investigation 2 "Light," Part 1 "Reflected Light"
Part 3: Engineering with Solar Cells (NEW!) ⚙️	N/A

⚙️ *Engineering Investigations*

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Environments Next Generation Grade 4 Life Science	Environments Second Edition Grades 5-6 Life Science
Investigation 1: Environmental Factors	Investigation 2: Bugs and Beetles
Part 1: Observing Mealworms (NEW!)	N/A
Part 2: Designing an Isopod Environment	Investigation 2, Part 2 "Org and Nonliving Env"
Part 3: Leaf-Litter Critters (NEW!)	N/A
Investigation 2: Ecosystems	Investigation 3: Water Tolerance Investigation 4: Aquatic Environments
Part 1: Designing an Aquarium	Investigation 4, Part 1 "Goldfish Aquariums"
Part 2: Food Chains and Food Webs	Investigation 3, Part 3
Part 3: Population Simulation (NEW!)	N/A
Part 4: Sound Off (NEW!)	N/A
Investigation 3: Brine Shrimp Hatching	Investigation 4: Aquatic Environments Investigation 5: Brine Shrimp Hatching
Part 1: Setting Up the Experiment	Investigation 5, Part 1
Part 2: Determining Range of Tolerance	Investigation 4, Part 2
Part 3: Determining Viability	Investigation 5, Part 3
Part 4: Variation in a Population (NEW!)	N/A
Investigation 4: Range of Tolerance (NEW!)	New for Next Generation
Part 1: Water or Salt Tolerance and Plants	Investigation 6, Parts 1 and 2
Part 2: Plant Patterns (NEW!)	N/A
Part 3: Plant Adaptations (NEW!)	N/A

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Table of Contents Comparison to Second Edition ©2005/2009

Soils, Rocks, and Landforms Next Generation Grade 4 Earth Science	Earth Materials Second Edition Grades 5–6 Life Science
Investigation 1: Soils and Weathering (NEW!)	New for Next Generation
Part 1: Soil Composition (NEW!)	N/A
Part 2: Physical Weathering (NEW!)	N/A
Part 3: Chemical Weathering	Earth Materials, 2nd Ed. Investigation 3 “Calcite Quest,” Part 1 “Detecting Calcite”
Part 4: Schoolyard Soils (NEW!)	N/A
Investigation 2: Landforms	Investigation 2: Stream Tables Investigation 3: Go With the Flow
Part 1: Erosion and Deposition	Landforms, 2nd Ed. Investigation 2, Part 1 “Erosion” and Part 2 “Deposition”
Part 2: Stream-Table Investigations	Landforms, 2nd Ed. Investigation 3, Part 1 “Slope” and Part 2 “Flood”
Part 3: Schoolyard Erosion and Deposition (NEW!)	N/A
Part 4: Fossil Evidence (NEW!)	N/A
Investigation 3: Mapping Earth’s Surface	Investigation 4: Build A Mountain
Part 1: Making a Topographic Map	Landforms, 2nd Ed. Investigation 4 , Part 1
Part 2: Drawing a Profile	Landforms, 2nd Ed. Investigation 4, Part 2
Part 3: Mount St. Helens Case Study (NEW!)	N/A
Part 4: Rapid Changes (NEW!)	N/A
Investigation 4: Natural Resources (NEW!)	New for Next Generation
Part 1: Introduction to Natural Resources (NEW!)	N/A
Part 2: Making Concrete (NEW!) ⚙️	N/A
Part 3: Earth Materials in Use (NEW!) ⚙️	N/A

⚙️ *Engineering Investigations*

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Living Systems Next Generation Grade 5 Life Science	Living Systems Second Edition Grades 5–6 Life Science
Investigation 1: Systems (NEW!)	New for Next Generation
Part 1: Everyday Systems (NEW!)	N/A
Part 2: The Earth System (NEW!)	N/A
Part 3: Kelp Forest Food Web (NEW!)	N/A
Part 4: Recycling (NEW!)	N/A
Investigation 2: Nutrient Systems	Investigation 1: Living Cells Investigation 3: Sugar and Cells
Part 1: Yeast Nutrition	Investigation 3, Part 2 “Using Sugar”
Part 2: Plant Nutrition (NEW!)	N/A
Part 3: Animal Nutrition	Investigation 1, Part 2 “Digestion”
Investigation 3: Transport Systems	Investigation 1: Living Cells Investigation 2: Vascular Plants
Part 1: Plant Vascular Systems	Investigation 2 “Vascular Plants”
Part 2: Circulatory Systems	Investigation 1, Part 1 “Circulation”
Part 3: Respiratory Systems	Investigation 1, Part 3 “Life Support”
Investigation 4: Sensory Systems (NEW!)	New for Next Generation
Part 1: Stimulus/Response (NEW!)	N/A
Part 2: Attention (NEW!)	N/A
Part 3: Instinct and Learning (NEW!)	N/A
Part 4: Ecosystems (NEW!)	N/A

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Mixtures and Solutions Next Generation Grade 5 Physical Science	Mixtures and Solutions Second Edition Grades 5–6 Physical Science
Investigation 1: Separating Mixtures	Investigation 1: Separating Mixtures
Part 1: Making and Separating Mixtures	Same
Part 2: Separating a Salt Solution	Same
Part 3: Separating a Dry Mixture 	Part 3 “Observing Crystals” combined with Part 4 “Separating Dry Mix”
Part 4: Outdoor Solutions (NEW!)	N/A
Investigation 2: Developing Models	Investigation 1: Black Boxes
Part 1: Black Boxes	Models and Designs, 2nd Ed. Investigation 1, Part 1 “Black-Box Investigations”
Part 2: Drought Stopper	Models and Designs, 2nd Ed. Investigation 1, Part 3 “The Drought Stopper”
Part 3: Models for Change in Properties (NEW!)	N/A
Investigation 3: Concentration	Investigation 3: Concentration
Part 1: Soft-Drink Recipes	Same
Part 2: Salt Concentrations	Same
Part 3: Mystery Solutions	Same
Part 4: Liquid Layers (NEW!)	N/A
Investigation 4: Reaching Saturation	Investigation 2: Concentration
Part 1: Salt Saturation	Investigation 2, Part 1
Part 2: Epsom Salts Saturation	Investigation 2, Part 2 “Citric Acid Saturation”
Part 3: The Saturation Puzzle	Investigation 2, Part 3
Part 4: What’s In Your Water? (NEW!)	N/A
Investigation 5: Fizz Quiz	Investigation 4: Fizz Quiz
Part 1: Chemical Reactions	Investigation 4, Part 1
Part 2: Reaction Products	Investigation 4, Part 2
Part 3: Reaction in a Zip Bag	Investigation 4, Part 3

 Engineering Investigations

Investigations of the same name are similar—but not identical—to the previous edition.



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Table of Contents Comparison to Second Edition ©2005/2009

Earth and Sun Next Generation Grade 5 Earth Science	Water Planet Second Edition Grades 5–6 Earth Science
Investigation 1: The Sun	Investigation 1: The Sun
Part 1: Shadow Shifting	Sun, Moon, and Stars, 2nd Ed. Investigation 1, Part 2 “Shadow Tracking”
Part 2: Sun Tracking	Sun, Moon, and Stars, 2nd Ed. Investigation 1, Part 1 “Following the Sun”
Part 3: Day and Night (NEW!)	N/A
Investigation 2: Planetary Systems	Investigation 2: The Moon Investigation 3: The Stars
Part 1: Night-Sky Observations	Sun, Moon, and Stars, 2nd Ed. Investigation 2 “The Moon,” Part 1
Part 2: How Big and How Far? (NEW!)	N/A
Part 3: Phases of the Moon	Sun, Moon, and Stars, 2nd Ed. Investigation 2 “The Moon,” Part 2
Part 4: The Solar System (NEW!)	N/A
Part 5: Stars	Sun, Moon, and Stars, 2nd Ed. Investigation 3 “The Stars,” Parts 1 and 2
Investigation 3: Earth’s Atmosphere (NEW!)	New for Next Generation
Part 1: The Air around Us (NEW!)	N/A
Part 2: The Atmosphere (NEW!)	N/A
Part 3: Local Weather (NEW!)	N/A
Investigation 4: Heating Earth	Investigation 4: Weather
Part 1: Heating Earth Materials	Solar Energy, 2nd Ed. Investigation 2 “Heating the Earth,” Part 2
Part 2: Conduction	N/A
Part 3: Convection	Investigation 4, Part 2
Part 4: Color and Energy Transfer (NEW!)	Solar Energy, 2nd Ed. Investigation 3 “Solar Water Heaters,” Part 1 “Color and Absorption”
Investigation 5: Water Planet	Investigation 3: Heating Earth Investigation 4: Weather
Part 1: Condensation	Investigation 3, Part 4
Part 2: Evaporation	Investigation 3, Part 1
Part 3: Water Cycle	Investigation 4, Part 1
Part 4: Climate (NEW!)	N/A

Engineering Investigations

Investigations of the same name are similar—but not identical—to the previous edition.