New Energy for Science

Houghton Mifflin Harcourt™

ScienceFusion, ScienceSaurus, and Science & Engineering Leveled Readers correlated to the

Oklahoma Academic Standards for Science: Disciplinary Core Ideas

Grade 4

Houghton Mifflin Harcourt
ScienceFusion, ScienceSaurus, and Science & Engineering Leveled Readers
correlated to the
Oklahoma Academic Standards for Science: Disciplinary Core Ideas, Grade 4

Oklahoma Academic Standards: Disciplinary Core Ideas Grade 4	**Citations** In the *ScienceFusion* digital curriculum, students encounter the same science concepts, vocabulary, and inquiry as they see in the Student Edition, but written with new examples or scenarios to provide an alternative digital experience for every write-in textbook lesson.
4-PS3-1: Energy	
Definitions of Energy: • The faster a given object is moving, the more energy it possesses.	**Science and Engineering Leveled Readers: Grade 4** **Grade 4 Unit 4 Enrichment Reader:** *What Happens Under the Hood?* **Grade 4 Teacher Guide** pages 45-48 **ScienceSaurus Grades 4–5 (Blue Level)** Pages 285, 289
4-PS3-2: Energy	
Definitions of Energy: • Energy can be moved from place to place by moving objects or through sound, light, or electric currents.	**ScienceFusion Grade 5** SE/Digital Curriculum — U14 L1: What Is Sound?, pp. 647–662 U14 L3: What Is Light?, pp. 667–676 U14 L4: What Are Some Properties of Light?, pp. 677–688 TE/Digital Curriculum — U14 L1: What Is Sound?, pp. 647A–662A U14 L3: What Is Light?, pp. 667A–676A U14 L4: What Are Some Properties of Light?, pp. 677A–688A **Science and Engineering Leveled Readers: Grade 4** **Grade 4 Unit 4 On-Level/Extra-Support Readers:** *How Do We Use Forms of Energy?* **Grade 4 Teacher Guide** pages 37-44

ScienceFusion, ScienceSaurus, and Science & Engineering Leveled Readers correlated to The Oklahoma Academic Standards for Science: Disciplinary Core Ideas, Grade 4

Oklahoma Academic Standards: Disciplinary Core Ideas Grade 4	**Citations** In the *ScienceFusion* digital curriculum, students encounter the same science concepts, vocabulary, and inquiry as they see in the Student Edition, but written with new examples or scenarios to provide an alternative digital experience for every write-in textbook lesson.
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ScienceFusion, ScienceSaurus, and Science & Engineering Leveled Readers correlated to The Oklahoma Academic Standards for Science: Disciplinary Core Ideas, Grade 4

Oklahoma Academic Standards: Disciplinary Core Ideas Grade 4	**Citations** In the *ScienceFusion* digital curriculum, students encounter the same science concepts, vocabulary, and inquiry as they see in the Student Edition, but written with new examples or scenarios to provide an alternative digital experience for every write-in textbook lesson.
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.	**Science and Engineering Leveled Readers: Grade 4** **Grade 4 Unit 4 On-Level/Extra-Support Readers:** *How Do We Use Forms of Energy?* **Grade 4 Teacher Guide** pages 37-44 **Grade 4 Unit 4 Enrichment Reader:** *What Happens Under the Hood?* **Grade 4 Teacher Guide** pages 45-48 **Grade 4 Unit 5 On-Level/Extra-Support Readers:** *How Do We Generate and Use Electricity?* **Grade 4 Teacher Guide** pages 49-56 **Grade 4 Unit 5 Enrichment Reader:** *Energy on Demand: Making Electricity* **Grade 4 Teacher Guide** pages 57-60 **Grade 4 Unit 6 On-Level/Extra-Support Readers:** *What Makes Objects Move?* **Grade 4 Teacher Guide** pages 61-68 **Grade 4 Unit 6 Enrichment Reader:** *Rocket Science* **Grade 4 Teacher Guide** pages 69-72 **ScienceSaurus Grades 4–5 (Blue Level)** Pages 284-303, 308-309

ScienceFusion, ScienceSaurus, and Science & Engineering Leveled Readers correlated to The Oklahoma Academic Standards for Science: Disciplinary Core Ideas, Grade 4

Oklahoma Academic Standards: Disciplinary Core Ideas Grade 4	**Citations** In the *ScienceFusion* digital curriculum, students encounter the same science concepts, vocabulary, and inquiry as they see in the Student Edition, but written with new examples or scenarios to provide an alternative digital experience for every write-in textbook lesson.
Conservation of Energy and Energy Transfer: • Light also transfers energy from place to place.	**ScienceFusion Grade 5** SE/Digital Curriculum U14 L3: What Is Light?, pp. 667–676 TE/Digital Curriculum U14 L3: What Is Light?, pp. 667A–676A **Science and Engineering Leveled Readers: Grade 4** **Grade 4 Unit 4 On-Level/Extra-Support Readers:** *How Do We Use Forms of Energy?* **Grade 4 Teacher Guide** pages 37-44 **Grade 4 Unit 4 Enrichment Reader:** *What Happens Under the Hood?* **Grade 4 Teacher Guide** pages 45-48 **Grade 4 Unit 5 On-Level/Extra-Support Readers:** *How Do We Generate and Use Electricity?* **Grade 4 Teacher Guide** pages 49-56 **Grade 4 Unit 5 Enrichment Reader:** *Energy on Demand: Making Electricity* **Grade 4 Teacher Guide** pages 57-60 **Grade 4 Unit 6 On-Level/Extra-Support Readers:** *What Makes Objects Move?* **Grade 4 Teacher Guide** pages 61-68 **Grade 4 Unit 6 Enrichment Reader:** *Rocket Science* **Grade 4 Teacher Guide** pages 69-72 **ScienceSaurus Grades 4–5 (Blue Level)** Pages 284-303, 308-309

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Oklahoma Academic Standards: Disciplinary Core Ideas Grade 4	**Citations** In the *ScienceFusion* digital curriculum, students encounter the same science concepts, vocabulary, and inquiry as they see in the Student Edition, but written with new examples or scenarios to provide an alternative digital experience for every write-in textbook lesson.
Conservation of Energy and Energy Transfer: • 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.	**ScienceFusion Grade 4** SE/Digital Curriculum U10 L1: What Is Electricity?, pp. 483–496 TE/Digital Curriculum U10 L1: What Is Electricity?, pp. 483A–496A **Science and Engineering Leveled Readers: Grade 4** **Grade 4 Unit 4 On-Level/Extra-Support Readers:** *How Do We Use Forms of Energy?* **Grade 4 Teacher Guide** pages 37-44 **Grade 4 Unit 4 Enrichment Reader:** *What Happens Under the Hood?* **Grade 4 Teacher Guide** pages 45-48 **Grade 4 Unit 5 On-Level/Extra-Support Readers:** *How Do We Generate and Use Electricity?* **Grade 4 Teacher Guide** pages 49-56 **Grade 4 Unit 5 Enrichment Reader:** *Energy on Demand: Making Electricity* **Grade 4 Teacher Guide** pages 57-60 **Grade 4 Unit 6 On-Level/Extra-Support Readers:** *What Makes Objects Move?* **Grade 4 Teacher Guide** pages 61-68 **Grade 4 Unit 6 Enrichment Reader:** *Rocket Science* **Grade 4 Teacher Guide** pages 69-72 **ScienceSaurus Grades 4–5 (Blue Level)** Pages 284-303, 308-309

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4-PS3-3: Energy	
Definitions of Energy: • Energy can be moved from place to place by moving objects or through sound, light, or electric currents.	**Science and Engineering Leveled Readers: Grade 4** **Grade 4 Unit 4 On-Level/Extra-Support Readers:** *How Do We Use Forms of Energy?* **Grade 4 Teacher Guide** pages 37-44 **Grade 4 Unit 4 Enrichment Reader:** *What Happens Under the Hood?* **Grade 4 Teacher Guide** pages 45-48 **Grade 4 Unit 5 On-Level/Extra-Support Readers:** *How Do We Generate and Use Electricity?* **Grade 4 Teacher Guide** pages 49-56 **Grade 4 Unit 5 Enrichment Reader:** *Energy on Demand: Making Electricity* **Grade 4 Teacher Guide** pages 57-60 **Grade 4 Unit 6 On-Level/Extra-Support Readers:** *What Makes Objects Move?* **Grade 4 Teacher Guide** pages 61-68 **Grade 4 Unit 6 Enrichment Reader:** *Rocket Science* **Grade 4 Teacher Guide** pages 69-72 **ScienceSaurus Grades 4–5 (Blue Level)** Pages 284-303

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Oklahoma Academic Standards: Disciplinary Core Ideas Grade 4	**Citations** In the *ScienceFusion* digital curriculum, students encounter the same science concepts, vocabulary, and inquiry as they see in the Student Edition, but written with new examples or scenarios to provide an alternative digital experience for every write-in textbook lesson.
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.	**Science and Engineering Leveled Readers: Grade 4** **Grade 4 Unit 4 On-Level/Extra-Support Readers:** *How Do We Use Forms of Energy?* **Grade 4 Teacher Guide** pages 37-44 **Grade 4 Unit 4 Enrichment Reader:** *What Happens Under the Hood?* **Grade 4 Teacher Guide** pages 45-48 **Grade 4 Unit 5 On-Level/Extra-Support Readers:** *How Do We Generate and Use Electricity?* **Grade 4 Teacher Guide** pages 49-56 **Grade 4 Unit 5 Enrichment Reader:** *Energy on Demand: Making Electricity* **Grade 4 Teacher Guide** pages 57-60 **Grade 4 Unit 6 On-Level/Extra-Support Readers:** *What Makes Objects Move?* **Grade 4 Teacher Guide** pages 61-68 **Grade 4 Unit 6 Enrichment Reader:** *Rocket Science* **Grade 4 Teacher Guide** pages 69-72 **ScienceSaurus Grades 4–5 (Blue Level)** Pages 284-303

ScienceFusion, ScienceSaurus, and Science & Engineering Leveled Readers correlated to The Oklahoma Academic Standards for Science: Disciplinary Core Ideas, Grade 4

Oklahoma Academic Standards: Disciplinary Core Ideas Grade 4	**Citations** In the *ScienceFusion* digital curriculum, students encounter the same science concepts, vocabulary, and inquiry as they see in the Student Edition, but written with new examples or scenarios to provide an alternative digital experience for every write-in textbook lesson.
Relationship Between Energy and Forces: • When objects collide, the contact forces transfer energy so as to change the objects' motions.	**Science and Engineering Leveled Readers: Grade 4** **Grade 4 Unit 4 On-Level/Extra-Support Readers:** *How Do We Use Forms of Energy?* **Grade 4 Teacher Guide** pages 37-44 **Grade 4 Unit 4 Enrichment Reader:** *What Happens Under the Hood?* **Grade 4 Teacher Guide** pages 45-48 **Grade 4 Unit 5 On-Level/Extra-Support Readers:** *How Do We Generate and Use Electricity?* **Grade 4 Teacher Guide** pages 49-56 **Grade 4 Unit 5 Enrichment Reader:** *Energy on Demand: Making Electricity* **Grade 4 Teacher Guide** pages 57-60 **Grade 4 Unit 6 On-Level/Extra-Support Readers:** *What Makes Objects Move?* **Grade 4 Teacher Guide** pages 61-68 **Grade 4 Unit 6 Enrichment Reader:** *Rocket Science* **Grade 4 Teacher Guide** pages 69-72 **ScienceSaurus Grades 4–5 (Blue Level)** Pages 284-303

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4-PS3-4: Energy	
Conservation of Energy and Energy Transfer: • 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.	**Science and Engineering Leveled Readers: Grade 4** **Grade 4 Unit 4 On-Level/Extra-Support Readers:** *How Do We Use Forms of Energy?* **Grade 4 Teacher Guide** pages 37-44 **Grade 4 Unit 4 Enrichment Reader:** *What Happens Under the Hood?* **Grade 4 Teacher Guide** pages 45-48 **Grade 4 Unit 5 On-Level/Extra-Support Readers:** *How Do We Generate and Use Electricity?* **Grade 4 Teacher Guide** pages 49-56 **Grade 4 Unit 5 Enrichment Reader:** *Energy on Demand: Making Electricity* **Grade 4 Teacher Guide** pages 57-60 **Grade 4 Unit 6 On-Level/Extra-Support Readers:** *What Makes Objects Move?* **Grade 4 Teacher Guide** pages 61-68 **Grade 4 Unit 6 Enrichment Reader:** *Rocket Science* **Grade 4 Teacher Guide** pages 69-72 **Grade 4 Unit 2 On-Level/Extra-Support Readers:** *What Is the Engineering Process?* **Grade 4 Teacher Guide** pages 13-20 **Grade 4 Unit 2 Enrichment Reader:** *City Water Tunnel 3* **Grade 4 Teacher Guide** pages 21-24 **ScienceSaurus Grades 4–5 (Blue Level)** Pages 286, 290, 296, 298, 309, 322-323, 328

ScienceFusion, ScienceSaurus, and Science & Engineering Leveled Readers correlated to The Oklahoma Academic Standards for Science: Disciplinary Core Ideas, Grade 4

Oklahoma Academic Standards: Disciplinary Core Ideas Grade 4	**Citations** In the *ScienceFusion* digital curriculum, students encounter the same science concepts, vocabulary, and inquiry as they see in the Student Edition, but written with new examples or scenarios to provide an alternative digital experience for every write-in textbook lesson.
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.	**Science and Engineering Leveled Readers: Grade 4** **Grade 4 Unit 4 On-Level/Extra-Support Readers:** *How Do We Use Forms of Energy?* **Grade 4 Teacher Guide** pages 37-44 **Grade 4 Unit 4 Enrichment Reader:** *What Happens Under the Hood?* **Grade 4 Teacher Guide** pages 45-48 **Grade 4 Unit 5 On-Level/Extra-Support Readers:** *How Do We Generate and Use Electricity?* **Grade 4 Teacher Guide** pages 49-56 **Grade 4 Unit 5 Enrichment Reader:** *Energy on Demand: Making Electricity* **Grade 4 Teacher Guide** pages 57-60 **Grade 4 Unit 6 On-Level/Extra-Support Readers:** *What Makes Objects Move?* **Grade 4 Teacher Guide** pages 61-68 **Grade 4 Unit 6 Enrichment Reader:** *Rocket Science* **Grade 4 Teacher Guide** pages 69-72 **Grade 4 Unit 2 On-Level/Extra-Support Readers:** *What Is the Engineering Process?* **Grade 4 Teacher Guide** pages 13-20 **Grade 4 Unit 2 Enrichment Reader:** *City Water Tunnel 3* **Grade 4 Teacher Guide** pages 21-24 **ScienceSaurus Grades 4–5 (Blue Level)** Pages 286, 290, 296, 298, 309, 322-323, 328, 356-363

ScienceFusion, ScienceSaurus, and Science & Engineering Leveled Readers correlated to The Oklahoma Academic Standards for Science: Disciplinary Core Ideas, Grade 4

Oklahoma Academic Standards: Disciplinary Core Ideas Grade 4	**Citations** In the *ScienceFusion* digital curriculum, students encounter the same science concepts, vocabulary, and inquiry as they see in the Student Edition, but written with new examples or scenarios to provide an alternative digital experience for every write-in textbook lesson.
Defining Engineering Problems: (secondary to 4-PS3-4) • 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.	**Science and Engineering Leveled Readers: Grade 4** **Grade 4 Unit 4 On-Level/Extra-Support Readers:** *How Do We Use Forms of Energy?* **Grade 4 Teacher Guide** pages 37-44 **Grade 4 Unit 4 Enrichment Reader:** *What Happens Under the Hood?* **Grade 4 Teacher Guide** pages 45-48 **Grade 4 Unit 5 On-Level/Extra-Support Readers:** *How Do We Generate and Use Electricity?* **Grade 4 Teacher Guide** pages 49-56 **Grade 4 Unit 5 Enrichment Reader:** *Energy on Demand: Making Electricity* **Grade 4 Teacher Guide** pages 57-60 **Grade 4 Unit 6 On-Level/Extra-Support Readers:** *What Makes Objects Move?* **Grade 4 Teacher Guide** pages 61-68 **Grade 4 Unit 6 Enrichment Reader:** *Rocket Science* **Grade 4 Teacher Guide** pages 69-72 **Grade 4 Unit 2 On-Level/Extra-Support Readers:** *What Is the Engineering Process?* **Grade 4 Teacher Guide** pages 13-20 **Grade 4 Unit 2 Enrichment Reader:** *City Water Tunnel 3* **Grade 4 Teacher Guide** pages 21-24 **ScienceSaurus Grades 4–5 (Blue Level)** Pages 286, 290, 296, 298, 309, 322-323, 328, 356-363

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Oklahoma Academic Standards: Disciplinary Core Ideas Grade 4	**Citations** In the *ScienceFusion* digital curriculum, students encounter the same science concepts, vocabulary, and inquiry as they see in the Student Edition, but written with new examples or scenarios to provide an alternative digital experience for every write-in textbook lesson.
* *Connections to Engineering, Technology, and Application of Science* **Influence of Engineering, Technology, and Science on Society and the Natural World:** • Engineers improve existing technologies or develop new ones.	**Science and Engineering Leveled Readers: Grade 4** **Grade 4 Unit 4 On-Level/Extra-Support Readers:** *How Do We Use Forms of Energy?* **Grade 4 Teacher Guide** pages 37-44 **Grade 4 Unit 4 Enrichment Reader:** *What Happens Under the Hood?* **Grade 4 Teacher Guide** pages 45-48 **Grade 4 Unit 5 On-Level/Extra-Support Readers:** *How Do We Generate and Use Electricity?* **Grade 4 Teacher Guide** pages 49-56 **Grade 4 Unit 5 Enrichment Reader:** *Energy on Demand: Making Electricity* **Grade 4 Teacher Guide** pages 57-60 **Grade 4 Unit 6 On-Level/Extra-Support Readers:** *What Makes Objects Move?* **Grade 4 Teacher Guide** pages 61-68 **Grade 4 Unit 6 Enrichment Reader:** *Rocket Science* **Grade 4 Teacher Guide** pages 69-72 **Grade 4 Unit 2 On-Level/Extra-Support Readers:** *What Is the Engineering Process?* **Grade 4 Teacher Guide** pages 13-20 **Grade 4 Unit 2 Enrichment Reader:** *City Water Tunnel 3* **Grade 4 Teacher Guide** pages 21-24 **ScienceSaurus Grades 4–5 (Blue Level)** Pages 286, 290, 296, 298, 309, 322-323, 328, 356-363

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Oklahoma Academic Standards: Disciplinary Core Ideas Grade 4	**Citations** In the *ScienceFusion* digital curriculum, students encounter the same science concepts, vocabulary, and inquiry as they see in the Student Edition, but written with new examples or scenarios to provide an alternative digital experience for every write-in textbook lesson.
4-PS4-1: Waves and Their Applications in Technologies for Information Transfer	
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. • Waves of the same type can differ in amplitude (height of the wave) and wavelength (spacing between wave peaks).	**ScienceFusion Grade 5** SE/Digital Curriculum — U11 L2: How Does Ocean Water Move?, pp. 505–516 TE/Digital Curriculum — U11 L2: How Does Ocean Water Move?, pp. 505A–516A **ScienceSaurus Grades 4–5 (Blue Level)** Pages 182, 194, 310-311, 316
4-PS4-2: Waves and Their Applications in Technologies for Information Transfer	
Electromagnetic Radiation: • An object can be seen when light reflected from its surface enters the eyes.	**ScienceFusion Grade 5** SE/Digital Curriculum — U14 L4: What Are Some Properties of Light?, pp. 677–688 TE/Digital Curriculum — U14 L4: What Are Some Properties of Light?, pp. 677A–688A **ScienceSaurus Grades 4–5 (Blue Level)** Pages 312-313

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4-PS4-3: Waves and Their Applications in Technologies for Information Transfer	
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.	**Science and Engineering Leveled Readers: Grade 4** **Grade 4 Unit 1 Enrichment Reader:** *Wild Science: Learning from the Cheetah* **Grade 4 Teacher Guide** pages 9-12 **Grade 4 Unit 2 On-Level/Extra-Support Readers:** *What Is the Engineering Process?* **Grade 4 Teacher Guide** pages 13-20 **ScienceSaurus Grades 4–5 (Blue Level)** Pages 358, 362
Optimizing The Design Solution: (secondary to 4-PS4-3) • Different solutions need to be tested in order to determine which of them best solves the problem, given the criteria and the constraints.	**Science and Engineering Leveled Readers: Grade 4** **Grade 4 Unit 1 Enrichment Reader:** *Wild Science: Learning from the Cheetah* **Grade 4 Teacher Guide** pages 9-12 **Grade 4 Unit 2 On-Level/Extra-Support Readers:** *What Is the Engineering Process?* **Grade 4 Teacher Guide** pages 13-20 **ScienceSaurus Grades 4–5 (Blue Level)** Pages 358, 362

Oklahoma Academic Standards: Disciplinary Core Ideas **Grade 4**	**Citations** In the *ScienceFusion* digital curriculum, students encounter the same science concepts, vocabulary, and inquiry as they see in the Student Edition, but written with new examples or scenarios to provide an alternative digital experience for every write-in textbook lesson.
4-LS1-1: From Molecules to Organisms: Structure and Processes	
Structure and Function: • Plants and animals have both internal and external structures that serve various functions in growth, survival, behavior, and reproduction.	**ScienceFusion Grade 4** SE/Digital Curriculum U3 L1: What Are Some Plant Structures?, pp. 103–114 U3 L2: How Do Plants Reproduce?, pp. 117–132 U3 L4: How Do Animals Reproduce?, pp. 135–148 U3 L5: How Are Living Things Adapted to Their Environment?, pp. 151–164 U3 L6: Why Do Bird Beaks Differ?, pp. 165–166 TE/Digital Curriculum U3 L1: What Are Some Plant Structures?, pp. 103A–114A U3 L2: How Do Plants Reproduce?, pp. 117A–132A U3 L4: How Do Animals Reproduce?, pp. 135A–148A U3 L5: How Are Living Things Adapted to Their Environment?, pp. 151A–164A U3 L6: Why Do Bird Beaks Differ?, pp. 165A–166A **Science and Engineering Leveled Readers: Grade 4** **Grade 4 Unit 1 Enrichment Reader:** *Wild Science: Learning from the Cheetah* **Grade 4 Teacher Guide** pages 9-12

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	Grade 4 Unit 10 On-Level/Extra-Support Readers: *How Do Organisms Interact with Their Environment?* **Grade 4 Teacher Guide** pages 109-116 **Grade 4 Unit 10 Enrichment Reader:** *Tiger Sharks in the Seagrass* **Grade 4 Teacher Guide** pages 117-120 **Grade 4 Unit 11 On-Level/Extra-Support Readers:** *How Do Plants and Animals Reproduce and Adapt?* **Grade 4 Teacher Guide** pages 121-128 **Grade 4 Unit 11 Enrichment Reader:** *Exploring the Galapagos Islands* **Grade 4 Teacher Guide** pages 129-132 **ScienceSaurus Grades 4–5 (Blue Level)** Pages 76-91, 93, 96-97, 98-109
4-LS1-2: From Molecules to Organisms: Structure and Processes	
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.	**ScienceFusion Grade 5** SE/Digital Curriculum — U3 L3: How Do Cells Work Together?, pp. 125–138 TE/Digital Curriculum — U3 L3: How Do Cells Work Together?, pp. 125A–138A **ScienceSaurus Grades 4–5 (Blue Level)** Pages 90-93

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4-ESS1-1: Earth's Place in the Universe	
The History of Planet Earth: • Local, regional, and global patterns of rock formations reveal changes over time due to earth forces, such as earthquakes.	**ScienceFusion Grade 5** SE/Digital Curriculum U10 L1: What Are Fossils?, pp. 453–462 U10 L2: What Was Ancient Earth Like?, pp. 465–480 TE/Digital Curriculum U10 L1: What Are Fossils?, pp. 453A–462A U10 L2: What Was Ancient Earth Like?, pp. 465A–480A **Science and Engineering Leveled Readers: Grade 4** **Grade 4 Unit 7 On-Level/Extra-Support Readers:** *Earth's Changing Surface and Natural Resources* **Grade 4 Teacher Guide** pages 73-80 **ScienceSaurus Grades 4–5 (Blue Level)** Pages 170-186

ScienceFusion, ScienceSaurus, and Science & Engineering Leveled Readers correlated to The Oklahoma Academic Standards for Science: Disciplinary Core Ideas, Grade 4

Oklahoma Academic Standards: Disciplinary Core Ideas Grade 4	**Citations** In the *ScienceFusion* digital curriculum, students encounter the same science concepts, vocabulary, and inquiry as they see in the Student Edition, but written with new examples or scenarios to provide an alternative digital experience for every write-in textbook lesson.
The History of Planet Earth: • The presence and location of certain fossil types indicate the order in which rock layers were formed.	**ScienceFusion Grade 5** SE/Digital Curriculum U10 L1: What Are Fossils?, pp. 453–462 U10 L2: What Was Ancient Earth Like?, pp. 465–480 TE/Digital Curriculum U10 L1: What Are Fossils?, pp. 453A–462A U10 L2: What Was Ancient Earth Like?, pp. 465A–480A **Science and Engineering Leveled Readers: Grade 4** **Grade 4 Unit 7 On-Level/Extra-Support Readers:** *Earth's Changing Surface and Natural Resources* **Grade 4 Teacher Guide** pages 73-80 **ScienceSaurus Grades 4–5 (Blue Level)** Pages 170-186

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4-ESS2-1: Earth's Systems	
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.	**ScienceFusion Grade 5** SE/Digital Curriculum — U8 L1: How Do Weathering and Erosion Shape Earth's Surface?, pp. 365–382 TE/Digital Curriculum — U8 L1: How Do Weathering and Erosion Shape Earth's Surface?, pp. 365A–382A **Science and Engineering Leveled Readers: Grade 4** **Grade 4 Unit 7 On-Level/Extra-Support Readers:** *Earth's Changing Surface and Natural Resources* **Grade 4 Teacher Guide** pages 73-80 **Grade 4 Unit 8 On-Level/Extra-Support Readers:** *How Does the Water Cycle Affect Weather?* **Grade 4 Teacher Guide** pages 85-92 **ScienceSaurus Grades 4–5 (Blue Level)** Pages 96, 165, 168, 170-173, 182-183, 192, 329

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4-ESS2-2: Earth's Systems	
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.	**ScienceFusion Grade 5** SE/Digital Curriculum U8 L3: How Do Movements of the Crust Change Earth?, pp. 387–402 TE/Digital Curriculum U8 L3: How Do Movements of the Crust Change Earth?, pp. 387A–402A **Science and Engineering Leveled Readers: Grade 4** **Grade 4 Unit 7 On-Level/Extra-Support Readers:** *Earth's Changing Surface and Natural Resources* **Grade 4 Teacher Guide** pages 73-80 **Grade 4 Unit 8 On-Level/Extra-Support Readers:** *How Does the Water Cycle Affect Weather?* **Grade 4 Teacher Guide** pages 85-92 **ScienceSaurus Grades 4–5 (Blue Level)** Pages 174-181

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Plate Tectonics and Large-Scale System Interactions: • Maps can help locate the different land and water features areas of Earth.	**ScienceFusion Grade 5** SE/Digital Curriculum U8 L3: How Do Movements of the Crust Change Earth?, pp. 387–402 TE/Digital Curriculum U8 L3: How Do Movements of the Crust Change Earth?, pp. 387A–402A **Science and Engineering Leveled Readers: Grade 4** **Grade 4 Unit 7 On-Level/Extra-Support Readers:** *Earth's Changing Surface and Natural Resources* **Grade 4 Teacher Guide** pages 73-80 **Grade 4 Unit 8 On-Level/Extra-Support Readers:** *How Does the Water Cycle Affect Weather?* **Grade 4 Teacher Guide** pages 85-92 **ScienceSaurus Grades 4–5 (Blue Level)** Pages 174-181, 403-407

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Oklahoma Academic Standards: Disciplinary Core Ideas Grade 4	**Citations** In the *ScienceFusion* digital curriculum, students encounter the same science concepts, vocabulary, and inquiry as they see in the Student Edition, but written with new examples or scenarios to provide an alternative digital experience for every write-in textbook lesson.
4-ESS3-1: Earth and Human Activity	
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.	**ScienceFusion Grade 4** SE/Digital Curriculum — U4 L4: What Are Natural Resources?, pp. 207–220 U4 L5: How Do People Impact Ecosystems?, pp. 221–232 TE/Digital Curriculum — U4 L4: What Are Natural Resources?, pp. 207A–220A U4 L5: How Do People Impact Ecosystems?, pp. 221A–232A **Science and Engineering Leveled Readers: Grade 4** **Grade 4 Unit 7 On-Level/Extra-Support Readers:** *Earth's Changing Surface and Natural Resources* **Grade 4 Teacher Guide** pages 73-80 **Grade 4 Unit 7 Enrichment Reader:** *Conserving Earth's Resources* **Grade 4 Teacher Guide** pages 81-84 **ScienceSaurus Grades 4–5 (Blue Level)** Pages 320-333, 334-343, 344-345, 350-353

ScienceFusion, ScienceSaurus, and Science & Engineering Leveled Readers correlated to The Oklahoma Academic Standards for Science: Disciplinary Core Ideas, Grade 4

Oklahoma Academic Standards: Disciplinary Core Ideas Grade 4	**Citations** In the *ScienceFusion* digital curriculum, students encounter the same science concepts, vocabulary, and inquiry as they see in the Student Edition, but written with new examples or scenarios to provide an alternative digital experience for every write-in textbook lesson.
4-ESS3-2: Earth and Human Activity	
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.	**Science and Engineering Leveled Readers: Grade 4** **Grade 4 Unit 7 On-Level/Extra-Support Readers:** *Earth's Changing Surface and Natural Resources* **Grade 4 Teacher Guide** pages 73-80 **Grade 4 Unit 7 Enrichment Reader:** *Conserving Earth's Resources* **Grade 4 Teacher Guide** pages 81-84 **Grade 4 Unit 8 On-Level/Extra-Support Readers:** *How Does the Water Cycle Affect Weather?* **Grade 4 Teacher Guide** pages 85-92 **Grade 4 Unit 8 Enrichment Reader:** *Hurricane!* **Grade 4 Teacher Guide** pages 93-96 **Grade 4 Unit 2 On-Level/Extra-Support Readers:** *What Is the Engineering Process?* **Grade 4 Teacher Guide** pages 13-20 **Grade 4 Unit 2 Enrichment Reader:** *City Water Tunnel 3* **Grade 4 Teacher Guide** pages 21-24 **ScienceSaurus Grades 4–5 (Blue Level)** Pages 178-183, 212-215

ScienceFusion, ScienceSaurus, and Science & Engineering Leveled Readers correlated to The Oklahoma Academic Standards for Science: Disciplinary Core Ideas, Grade 4

Oklahoma Academic Standards: Disciplinary Core Ideas Grade 4	**Citations** In the *ScienceFusion* digital curriculum, students encounter the same science concepts, vocabulary, and inquiry as they see in the Student Edition, but written with new examples or scenarios to provide an alternative digital experience for every write-in textbook lesson.
Designing Solutions to Engineering Problems: • Testing a solution involves investigating how well it performs under a range of likely conditions. (secondaryto4-ESS3-2)	**Science and Engineering Leveled Readers: Grade 4** **Grade 4 Unit 7 On-Level/Extra-Support Readers:** *Earth's Changing Surface and Natural Resources* **Grade 4 Teacher Guide** pages 73-80 **Grade 4 Unit 7 Enrichment Reader:** *Conserving Earth's Resources* **Grade 4 Teacher Guide** pages 81-84 **Grade 4 Unit 8 On-Level/Extra-Support Readers:** *How Does the Water Cycle Affect Weather?* **Grade 4 Teacher Guide** pages 85-92 **Grade 4 Unit 8 Enrichment Reader:** *Hurricane!* **Grade 4 Teacher Guide** pages 93-96 **Grade 4 Unit 2 On-Level/Extra-Support Readers:** *What Is the Engineering Process?* **Grade 4 Teacher Guide** pages 13-20 **Grade 4 Unit 2 Enrichment Reader:** *City Water Tunnel 3* **Grade 4 Teacher Guide** pages 21-24 **ScienceSaurus Grades 4–5 (Blue Level)** Pages 212-215, 357-358

ScienceFusion, ScienceSaurus, and Science & Engineering Leveled Readers correlated to The Oklahoma Academic Standards for Science: Disciplinary Core Ideas, Grade 4

Oklahoma Academic Standards: Disciplinary Core Ideas Grade 4	**Citations** In the *ScienceFusion* digital curriculum, students encounter the same science concepts, vocabulary, and inquiry as they see in the Student Edition, but written with new examples or scenarios to provide an alternative digital experience for every write-in textbook lesson.
* *Connections to Engineering, Technology, and Application of Science* **Influence of Engineering, Technology, and Science on Society and the Natural World:** • Engineers improve existing technologies or develop new ones to increase their benefits, to decrease known risks, and to meet societal demands.	**Science and Engineering Leveled Readers: Grade 4** **Grade 4 Unit 7 On-Level/Extra-Support Readers:** *Earth's Changing Surface and Natural Resources* **Grade 4 Teacher Guide** pages 73-80 **Grade 4 Unit 7 Enrichment Reader:** *Conserving Earth's Resources* **Grade 4 Teacher Guide** pages 81-84 **Grade 4 Unit 8 On-Level/Extra-Support Readers:** *How Does the Water Cycle Affect Weather?* **Grade 4 Teacher Guide** pages 85-92 **Grade 4 Unit 8 Enrichment Reader:** *Hurricane!* **Grade 4 Teacher Guide** pages 93-96 **Grade 4 Unit 2 On-Level/Extra-Support Readers:** *What Is the Engineering Process?* **Grade 4 Teacher Guide** pages 13-20 **Grade 4 Unit 2 Enrichment Reader:** *City Water Tunnel 3* **Grade 4 Teacher Guide** pages 21-24 **ScienceSaurus Grades 4–5 (Blue Level)** Pages 212-215, 357-358