Course Description Grades 6-8 Science Streamlined TEKS 2021-22

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Grade 6 Course Description

Scientific Investigation and Reasoning Skills

Unit 1: Safety and Scientific Investigations 8.1A, 1B, 2A, 2B, 2C, 2D, 2E, 3A, 3B, 3C, 3D, 4A, 4B

Scientific Investigation and Reasoning TEKS: *Grades 6-8 1A, 1B; 2A, B, C, D, E; 3A, B, C, D; 4A, 4B*	
Instruction Module	**Safety and Scientific Investigation:** In this Instruction Module, students learn how to plan and implement descriptive, comparative, and experimental investigations. They learn to ask well-defined questions, formulate testable hypotheses, collect, record, and analyze data, construct tables and graphs, communicate valid conclusions and predict trends. They also review safe practices and safety equipment needed when doing scientific investigations.
IM Companion	Safety and Scientific Investigations
WordExplorer	Scientific Investigation and Reasoning
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Similarities and differences between the three types of scientific investigations: Comparative, descriptive, and experimental; independent and dependent variables, and use of safety equipment such as eyewash, fire blankets, safety goggles, gloves, and aprons.
Journals	Journal – Safe Practices and Safety Equipment – TEKS 8.1A
Activity	Move it! Move it! - Molecules in Motion – TEKS 6.1A, B; 6.2B, C, D, E; 6.4A, B; 7.1A, B; 7.2A, C, D, E; 7.4A, B; 8.1A, B; 8.2A, C, D, E; 8.4A, B Lab Safety Symbols – TEKS 8.1A

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Readers	**Theories and Laws:** Clearing the misconceptions surrounding theories and laws, and they are used by the scientific community. **Science TEKS**: 6.3(A) **ELA TEKS**: 6.5(F), 6.8(D) **Reading Levels**: 2
	Mt. Pinatubo: The events surrounding the Mt. Pinatubo volcano and how the scientists onsite helped prevent further damage through their research and knowledge. **Science TEKS**: 6.3(D) **Reading Levels**: 2
	San Francisco Earthquakes: Using the San Francisco earthquake as the backdrop, this text explains what led to the theory of continental drift and how movements in the tectonic plate cause earthquakes. **Science TEKS**: 6.3(D) **Reading Levels**: 2
	Magnets and Wind in a Perfect World: The properties of magnets and their role in maglev technology used for trains and wind turbines. **Science TEKS**: 6.3(D) | **ELA TEKS**: 6.5(C, F, G, H , I), 6.8(D)i, ii, iii **Reading Levels**: 1
	How are Theories Constructed?: Defining what theories are and how scientist use facts and evidence to construct them. **Science TEKS**: 6.3 (A) **Reading Levels**: 1

Matter and Energy 6.5

Unit 1 : Elements and Compounds 6.5 A, B, C

Science Concepts TEKS : 6.5 A, B, C

Instruction Module	**What are Elements?**: In this Instruction Module, students are introduced to elements, the pure substances that are the simplest form of matter. They learn that about 117 elements have been discovered so far but only a limited number of elements such as oxygen, hydrogen, nitrogen, and, carbon make up most of the solid parts of Earth, the ocean, the atmosphere, and living matter.
IM Companion	**What are Elements?**

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Instruction Module	**Identifying Elements:** In this Instruction Module, students learn that elements can be identified by their properties. They learn that the atoms that make up each element have a unique structure that determines its properties. They also learn that each element is represented by a chemical symbol.
IM Companion	**Identifying Elements**
Instruction Module	**What are Compounds?:** In this Instruction Module, students are introduced to compounds. They learn compounds are formed when two or more elements combine chemically and that the smallest unit of a compound is a molecule. They also learn that compounds are represented by chemical formulas and can only be separated by chemical processes.
IM Companion	**What are Compounds**
Instruction Module	**Evidence of Chemical Changes:** In this Instruction Module, students understand that chemical changes result in the formation of new substances. They learn that a change in color or temperature, the production of a gas, and the formation of a precipitate, are evidence of chemical changes. Students also compare a chemical change to a physical change.
IM Companion	**Evidence of Chemical Changes**
Student Review	**Introducing Elements:** Students assess and review their understanding of elements being pure substances and are represented by chemical symbols.
Student Review	**Common Elements on Earth:** Students assess and review their understanding of how only some elements, such as oxygen, hydrogen, nitrogen, and carbon, make up the largest part of solid Earth, the oceans, the atmosphere, and living matter.
Student Review	**What are Compounds?:** Students assess and review their understanding of how compounds are formed and represented by chemical formulas that are based on a molecule of the compound.
Student Review	**Evidence of Chemical Changes:** Students assess and review their understanding of the evidence that indicate the formation of a new substance, such as change in color, a change in temperature, the release of a gas, the formation of a precipitate, during a chemical reaction.

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Interactivity/ Simulation	**The Substance Detector**: In this Interactivity, students classify a given substance as an element or a compound based on its symbol/chemical formula. They observe the substance undergoing a change and recognize it as a physical or a chemical change.
WordExplorer	**Elements and Compounds**
Quiz	The questions in the assessment section test the student's understanding of the following concepts: difference between an element and a compound, chemical symbols and formulae, evidence for chemical changes, and the difference between a physical change and a chemical change.
Journals	**Journal 1 – TEKS 6.2B, 6.5D** **Journal 2 – TEKS 6.2C, D; 6.5B** **Journal 3 – TEKS 6.2C; 6.5C**
Activities	Elements and Compounds- TEKS 6.4A; 6.5C
Readers	**New Foam Pushes Up Concrete:** A comparison of the traditional solution of mud jacking and the new foam injection method to repair the concrete of broken sidewalks and roads. **Science TEKS:** 6.5 (C) **Reading Levels**: 2
	Acids and Bases: How the knowledge of acids, bases, and salts can help in everyday scenarios, such as providing instant relief when someone bites a hot pepper. **Science TEKS:** 6.5 (A) **Reading Levels**: 2
	Common Chemical Reactions: Defining a chemical reaction, what constitutes a chemical reaction, and how controlled 'explosions' are used in cars and rockets. **Science TEKS:** 6.5 (C) **Reading Levels**: 2
	Atoms, Elements, Compound and Mixtures: What atoms are and the role they play in understanding elements and compounds. **Science TEKS:** 6.5 (A), 6.6 (A) **ELA TEKS:** 6.10(A), 2019 ELA TEKS: 6.6(D) **Reading Levels**: 1
	How Temperature Affects Changes in Matter: he effects of changes in temperature, such as changes in state, causes chemical changes, and affecting the rate of a reaction. **Science TEKS:** 6.5 (C) **ELA TEKS:** 6.10(C), 2019 ELA TEKS: 6.8(D)ii **Reading Levels**: 1
STAARSmart Tests	**Unit Tests: 6.5 (A) (B) (C) - Elements and Compounds**

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Matter and Energy 6.6

Unit 1 : Metals and Nonmetals 6.6 A,B

Science Concepts TEKS : 6.6 A, B

Instruction Module	**Properties of Metals**: In this Instruction Module, students are introduced to the properties of metals and recognize that metals have a shiny luster, are malleable and ductile, and are mostly good conductors of heat and electricity. They also learn how these properties make metals useful in in everyday life.
IM Companion	**Properties of Metals**
Instruction Module	**Comparing Metals and Nonmetals:** In this Instruction Module, students observe and compare some physical properties of metals and nonmetals including ability to conduct heat and electricity, luster, malleability, and ductility. They are also introduced to the placement of metals and nonmetals on the periodic table.
IM Companion	**Comparing Metals and Nonmetals**
Instruction Module	**Properties of Metalloids:** In this Instruction Module, students observe the properties of metalloids and recognize that they have properties of both metals and nonmetals. They learn that metalloids occupy the space between the metals and nonmetals on the periodic table. They also learn some uses of metalloids in everyday life.
IM Companion	**Properties of Metalloids**
Instruction Module	**Calculating Density:** In this Instruction Module, students learn that density is a physical property that can be used to identify elements. They learn how to calculate density. They also recognize that mass can be measured with a triple beam balance and that the volume of an irregular shaped object can be measured using displacement.

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IM Companion	**Calculating Density**
Student Review	**Comparing Metals and Nonmetals:** Students assess and review their understanding of the physical properties of metals and nonmetals, such as luster, conductivity of heat and electrical energy, and malleability.
Student Review	**Properties of Metalloids:** Students assess and review their understanding of the physical properties of metalloids, such as luster, conductivity of heat and electrical energy, and malleability, and where they appear on the periodic table.
Student Review	**Calculating Density:** Students assess and review their understanding of how density is calculated and used to identify a substance.
Interactivity/ Simulation	**Test Your Metal**: In this Interactivity, students observe the physical properties of elements and classify them as metal, nonmetal, or metalloid. Then, given the mass and volume of the sample, they identify it by calculating its density and comparing the value with a density chart.
WordExplorer	Metals and Nonmetals
Quiz	The questions in the assessment section test the student's understanding of the following concepts: the physical properties of metals, nonmetals, and metalloids, exceptions to the above categories, and identifying substances based on density.
Journals	Journal – TEKS 6.2C, E; 6.6A
Activities	Calculating Density to Identify Substances – TEKS 6.2C, E; 6.3A; 6.4A; 6.6B
Readers	**Atoms, Elements, Compound and Mixtures:** What atoms are and the role they play in understanding elements and compounds. **Science TEKS:** 6.5 (A), 6.6 (A) **ELA TEKS:** 6.10(A), 2019 ELA TEKS: 6.6(D) **Reading Levels**: 1
STAARSmart Tests	**Unit Tests: 6.6 (A) (B) - Metals and Nonmetals**

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Unit 2 : Classifying Minerals 6.6 C

Science Concepts TEKS : 6.6 C	
Instruction Module	**Mineral Basics**: In this Instruction Modules, students learn to define a mineral. They understand how some minerals such as diamonds and salt are formed. They also learn how minerals are used in our daily lives for various purposes.
IM Companion	**Mineral Basics**
Instruction Module	**Identifying Minerals:** In this Instruction Module, students learn that minerals are inorganic, solid substances that can be identified based on the properties of color, streak, luster, hardness and cleavage. They learn how minerals are formed. They also learn how to use Mohs hardness scale to determine a mineral's hardness.
IM Companion	**Identifying Minerals**
Student Review	**Identifying Minerals:** Students assess and review their understanding of the physical properties of minerals, such as hardness, color, luster, and streak.
Interactivity/ Simulation	**Mystery Minerals**: In this Simulation, students identify minerals by observing their physical properties such as color, streak, luster, hardness, and cleavage and comparing the results with a mineral identification chart.
WordExplorer	Classifying Minerals
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Relation of rocks and minerals, different ways in which minerals form, uses of minerals, physical properties of minerals such as color, streak, luster, hardness, and cleavage, and identification of minerals based on their physical properties.
Journals	Journal – TEKS 6.2C, E; 6.6C
Activities	Testing for Physical Properties to Identify Minerals (Experimental Investigation) – TEKS 6.2A, C, D, E; 6.4A, B; 6.6C

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Readers	**Identifying Minerals:** A second persona narrative of the process of identifying a mineral by testing for color, luster, streak, hardness, and cleavage. **Science TEKS:** 6.6 (C) **ELA TEKS:** 6.5(A, B, C, E, F, G, H), 6.8(D)i, ii, iii **Reading Levels**: 2
STAARSmart Tests	**Unit Tests: 6.6 (C) - Classifying Minerals**

Matter and Energy 6.7

Unit 1 : Energy Resources 6.7 A

Science Concepts TEKS : 6.7 A

Instruction Module	**Energy Resources**: In this Instruction Module, students learn the difference between renewable and nonrenewable energy resources and identify examples of each.
IM Companion	**Energy Resources**
Instruction Module	**Fossil Fuels:** In this Instruction Module, students learn how we use coal, oil, and natural gas in our everyday lives and observe how these fossil fuels are formed. They also examine some of the advantages and disadvantages of using fossil fuels.
IM Companion	**Fossil Fuels**
Instruction Module	**Nuclear Energy:** In this Instruction Module, students understand how nuclear energy can be utilized to generate electricity. They also understand the advantages and disadvantages of using nuclear energy.
IM Companion	**Nuclear Energy**
Instruction Module	**Hydroelectricity:** In this Instruction Module, students understand how hydropower, the energy stored in moving water, can be utilized to generate electricity. They also understand the advantages and disadvantages of using hydropower.

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IM Companion	**Hydroelectricity**
Instruction Module	**Geothermal Energy:** In this Instruction Module, students understand how geothermal energy, the heat energy inside Earth, can be utilized to warm buildings and generate electricity. They also understand the advantages and disadvantages of using geothermal energy.
IM Companion	**Geothermal Energy**
Instruction Module	**Biomass:** In this Instruction Module, students understand how biomass can be utilized to generate electricity. They also understand the advantages and disadvantages of using biomass.
IM Companion	**Biomass**
Instruction Module	**Solar Energy:** In this Instruction Module, students understand how solar energy can be utilized for heat and to generate electricity. They also understand the advantages and disadvantages of using solar energy.
IM Companion	**Solar Energy**
Instruction Module	**Wind Energy:** In this Instruction Module, students understand how wind energy can be utilized to do work and generate electricity. They also understand the advantages and disadvantages of using wind energy.
IM Companion	**Wind Energy**
Student Review	**Fossil Fuels:** Students assess and review their understanding of the advantages and disadvantages of using fossil fuels, such as coal, oil, and natural gas.
Student Review	**Nuclear Energy**: Students assess and review their understanding of the advantages and disadvantages of using nuclear energy.

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Student Review	**Hydroelectricity:** Students assess and review their understanding of the advantages and disadvantages of using hydropower.
Student Review	**Geothermal Energy:** Students assess and review their understanding of the advantages and disadvantages of using geothermal energy.
Student Review	**Biomass:** Students assess and review their understanding of the advantages and disadvantages of using biomass.
Student Review	**Solar Energy:** Students assess and review their understanding of the advantages and disadvantages of using solar energy.
Student Review	**Wind Energy:** Students assess and review their understanding of the advantages and disadvantages of using wind energy.
WordExplorer	Energy Resources
Quiz	The questions in the assessment section test the student's understanding of the following concepts: The different types of energy resources and their classification into renewable, non-renewable and inexhaustible resources. The various power plants and their functioning. The importance of developing alternative sources of energy. Reading a power output graph and how we can develop energy resources in different areas.
Journals	Journal 1 – TEKS 6.7A
Activities	Managing Energy in Your Home, School, and Community – TEKS 6.1B; 6.2C; Energy Matters – TEKS 6.2 C; 6.2E; 6.7A Comparing Solar Ovens (Comparative Investigation) TEKS 6.1A, B; 6.2A, C, D, E; 6.3A; 6.4A, B; 6.7A The Effect of Color on Heat Absorption in a Solar Collector (Experimental Investigation) – TEKS 6.1A, B; 6.2B, C, D, E; 6.3B; 6.4A; 6.7A
Readers	**Wind Farms:** All things wind turbine: What they are, how they work, where they are installed, why we need more of them, and some of their disadvantages. **Science TEKS:** 6.7(A), 6.9(C) **ELA TEKS:** 6.5(F,G), 6.8(D) i, ii, iii **Reading Levels**: 2

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	Pumped Storage Reservoirs: What pumped storage reservoirs are, how some of the well-known ones were constructed, and some of their advantages and disadvantages. **Science TEKS:** 6.7(A), 6.8(A) **Reading Levels**: 1
	Energy Transfer: Transfer of the different kinds of energy against the backdrop of a music concert. **Science TEKS:** 6.7(A), 6.9(C) **ELA TEKS:** 6.10(D), 2019 ELA TEKS: 6.5(H) **Reading Levels**: 1
STAARSmart Tests	**Unit Tests: 6.7 (A) - Energy Resources**

Force, Motion, and Energy 6.8

Unit 1 : Potential and Kinetic Energy 6.8 A

Science Concepts TEKS : 6.8 A

Instruction Module	**Kinetic Energy**: In this Instruction Module, students observe and learn that kinetic energy is the energy an object possesses because of its motion. They also learn that kinetic energy depends on the mass and speed of an object.
IM Companion	**Kinetic Energy**
Instruction Module	**Potential Energy:** In this Instruction Module, students learn that potential energy is the energy stored in objects because of their position. They recognize that the potential energy of an object depends on its mass and position. They also observe examples of how potential energy is changed into kinetic energy.
IM Companion	**Potential Energy**
Instruction Module	**Mechanical Energy Transformations:** In this Instruction Module, students observe a pendulum to gain an understanding of how mechanical energy continuously changes back and forth between potential and kinetic energy. They are also introduced to the Law of Conservation of Energy, recognizing that energy is neither created nor destroyed but only changes forms.

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IM Companion	Mechanical Energy Transformations
Student Review	**Kinetic Energy:** Students assess and review their understanding of what kinetic energy of a moving object is and what it depends on.
Student Review	**Potential Energy:** Students assess and review their understanding of potential energy and the factors that affect it, such as mass and the height to which an object is raised.
Student Review	**Mechanical Energy Transformations:** Students assess and review their understanding of the energy transformations between potential and kinetic energy through an oscillating pendulum.
Interactivity/ Simulation	**Is it Potential or Kinetic?**: In this Interactivity, students observe the movement of objects and identify the correct amounts of potential and kinetic energy at different positions of the objects. **Design the Ride:** In this simulation section, students change the height of the hills of a roller coaster and observe the effect on the movement of the roller coaster car. They record their observations, analyze the data, and arrive at a conclusion. This helps them to understand the energy conversions that take place in a roller coaster ride.
WordExplorer	Potential and Kinetic Energy
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Potential energy, kinetic energy, factors affecting potential and kinetic energy, and energy transformations.
Journals	Journal – TEKS 6.2C, E; 6.8A
Activities	Potential and Kinetic Energy (Experimental Investigation) – TEKS 6.1A, B; 6.2B, C, D, E; 6.3B; 6.4A, B
Readers	**Pumped Storage Reservoirs:** What pumped storage reservoirs are, how some of the well-known ones were constructed, and some of their advantages and disadvantages. **Science TEKS:** 6.7(A), 6.8(A) **Reading Levels**: 1
STAARSmart Tests	**Unit Tests: 6.8 (A) - Potential and Kinetic Energy**

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Unit 2 : Force and Motion 6.8 B, C, D	
Science Concepts TEKS : 6.8 B, C, D	
Instruction Module	**Effect of Force on Motion**: In this Instruction Module, students learn the pushes and pulls are called forces. They observe examples of how unbalanced forces, including gravity and friction, can change the position, direction and speed of an object.
IM Companion	**Effect of Force on Motion**
Instruction Module	**Measuring Distance and Speed:** In this Instruction Module, students observe and recognize that motion is relative to a particular point. They learn to calculate the average speed of an object by dividing distance by time and express it using the correct units of measurement. They also learn that the motion of an object can be depicted on a distance - time graph.
IM Companion	**Measuring Distance and Speed**
Student Review	**Effect of Force on Motion:** Students assess and review their understanding of how unbalanced forces change the position, direction, and speed of a moving object.
Student Review	**Measuring Distance and Speed:** Students assess and review their understanding of the calculation of average speed using distance and time, and how the motion of a moving object is depicted on a graph.
WordExplorer	Force and Motion
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Distance, displacement, average speed, balanced and unbalanced forces, magnitude and direction of forces, and interpreting a displacement-time graph.
Journals	Journal 1- TEKS 6.2E; 6.8B Journal 2 – TEKS 6.2C, E; 6.8C
Activities	Unbalanced Forces (Experimental Investigation) – TEKS 6.1A, B; 6.2B, C, D, E; 6.3A; 6.4A, B;6.8B

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	Representing Changes in Motion Graphically (STEM Investigation) – TEKS 6.2A, C, D, E; 6.4A; 6.8B, C, D
Readers	**Eddie the Eagle: A Battle with Forces:** A look into the science that affects a sport, in this case in ski jumping, and how sportspersons take advantage of the factors to get the edge. **Science TEKS:** 6.8 (B) **ELA TEKS:** 4.3(B), 4.6(F, G, H, I), 4.10(A) **Reading Levels**: 1 **Need for Speed:** A brief informative piece on the definition of speed and the attempts of famous car racers who tried to break the land speed records. **Science TEKS:** 6.8 (C) **Reading Levels**: 2 **Speed and Direction:** How Science and Math help sailors navigate their way on the oceans, and some of the tools used to keep track of speed and direction on the wide waters. **Science TEKS:** 6.8(C), 6.4(A) **Reading Levels**: 2 **Describing motion:** A review of the concepts of distance, time, speed, and direction. **Science TEKS:** 6.8 (B) **ELA TEKS:** 6.10(D), 2019 ELA TEKS: 6.8(H) **Reading Levels**: 1 **Balanced and Unbalanced Forces:** An explanation of balanced and unbalanced forces in context of acceleration and motion. **Science TEKS:** 6.8 (B) **ELA TEKS:** 6.10(D), 2019 ELA TEKS: 6.5(H) **Reading Levels**: 2 **Speed and Motion:** Michelle and her friends go biking and observe the science of speed and motion along the way. **Science TEKS:** 6.8 (B) (C) **ELA TEKS:** 6.10(D), 2019 ELA TEKS: 6.5 (H) **Reading Levels**: 1
STAARSmart Tests	**Unit Tests: 6.8 (B) (C) (D) - Force and Motion**

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Unit 3 : Using Inclined Planes 6.8 E

Science Concepts TEKS : 6.8 E	
Instruction Module	**Inclined Planes**: In this Instructional Module, students learn about inclined planes. They understand how inclined planes help us use less force over a greater distance to get the same amount of work done.
IM Companion	**Inclined Planes**
WordExplorer	Using Inclined Planes
Quiz	The questions in the assessment section test the student's understanding of the inclined planes, and its effects on the amount of force applied and the distance moved by the object.
Activities	Using an Inclined Plane to do Work – TEKS 6.1A, B; 6.2A, C, D, E; 6.4A, B; 6.8E
STAARSmart Tests	**Unit Tests: 6.8 E - Using Inclined Planes**

Force, Motion, and Energy 6.9

Unit 1 : Heat Transfer 6.9 A, B

Science Concepts TEKS : 6.9 A, B	
Instruction Module	**Temperature**: In this Instruction Module, students learn that temperature is a measure of the average kinetic energy of the moving particles of matter. They also recognize why a thermometer is the scientific tool needed to measure temperature.
IM Companion	**Temperature**
Instruction Module	**What is Thermal Energy?:** In this Instruction Module, students learn that the total kinetic energy of the moving particles of matter that make up a substance is thermal energy. They recognize the addition of thermal energy increases the temperature of a substance and understand why a thermometer is used to measure temperature.

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IM Companion	**What is Thermal Energy?**
Instruction Module	**Heat Transfer by Conduction:** In this Instruction Module, students learn that heat always moves from an object at a higher temperature to an object at a lower temperature until both reach the same temperature. They observe how heat can be transferred in some solids from one particle to another through conduction. They also understand the difference between conductors and insulators.
IM Companion	**Heat Transfer by Conduction**
Instruction Module	**Heat Transfer by Convection:** In this Instruction Module, students learn that convection is the transfer of heat from one place to another through the movement of particles. They compare and contrast how heat is transferred through convection and conduction. They also learn how convection currents in the atmosphere and in Earth's mantle are responsible for wind and earthquakes.
IM Companion	**Heat Transfer by Convection**
Instruction Module	**Heat Transfer by Radiation:** In this Instruction Module, students learn that radiation is the process in which heat is transferred as electromagnetic waves and does not need a medium to travel through. They learn that energy from the Sun is transferred to Earth by radiation. They also understand how radiation differs from conduction and convection.
IM Companion	**Heat Transfer by Radiation**
Student Review	**Heat Transfer by Conduction:** Students assess and review their understanding of the transfer of heat from an object at a higher temperature to an object at through conduction.
Student Review	**Heat Transfer by Convection:** Students assess and review their understanding of effects of heat on the movement of particles in a fluid through the process of convection.
Student Review	**Heat Transfer by Radiation:** Students assess and review their understanding of heat transfer as electromagnetic waves through the process of radiation.
Interactivity/ Simulation	**Heat and Heat Transfer:** In this simulation, students set the temperatures of two materials whose containers are in contact with each other, observe the changes in temperature of both after an interval of time, and arrive at a conclusion about the direction in which thermal energy moves. **Heat Transfer by Conduction:** In this simulation, students observe the time taken for heat to flow through different materials and, based on

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	their observations, categorize the materials as thermal conductors and insulators.
WordExplorer	Heat Transfer
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Use of thermometers, heat transfer by conduction, convection, and radiation, and applications of these processes.
Journals	Journal 1 – TEKS 6.2E; 6.9A Journal 2 – TEKS 6.4B
Activities	Safety First! – TEKS 6.1A; 6.4A, B Modeling Heat Transfer by Convection and Conduction (Descriptive Investigation) – TEKS 6.1A, B; 6.2A, C, D, E; 6.3A, B, C; 6.4A, B; 6.9A, B Heat Conduction – TEKS 6.1A, B; 6.2A, C, D, E; 6.3B; 6.9A, B
Readers	**Heat Flow:** How coats provide heat, based on the concepts of heat transfer, conductors, and insulators. **Science TEKS:** TEKS: 4.6(A) (B),6.9(A) **ELA TEKS:** 4.11(C), 2019 ELA TEKS: 4.9(D)iii **Reading Levels**: 3
STAARSmart Tests	**Unit Tests: 6.9 A, B - Heat Transfer**

Unit 2: Energy Transformations 6.9 C

Science Concepts TEKS : 6.9 C	
Instruction Module	**Energy Transformations**: In this Instruction Module, students observe examples of common energy transformations that take place in their everyday lives. Through these examples, they learn about the Law of Conservation of Energy, recognizing that energy is neither created nor destroyed but only changes forms.
IM Companion	**Energy Transformations**
Instruction Module	**Generating Electrical Energy:** In this Instruction Module, students learn how chemical energy, solar energy, nuclear energy and hydropower is transformed to generate electrical energy. They observe how power plants and solar cells function to make these transformations.
IM Companion	**Generating Electrical Energy**
Instruction Module	**Transformation of Chemical Energy:** In this Instruction Module, students learn that chemical energy is the energy stored in the bonds

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	that hold together the atoms and molecules of a substance. They observe examples of how chemical energy is transformed into other forms of energy we use every day, such as transformations of chemical energy in food to kinetic and potential energy, chemical energy in batteries to light energy, and chemical energy in fossil fuels to electrical energy.
IM Companion	**Transformation of Chemical Energy**
Student Review	**Energy Transformations:** Students assess and review their understanding of energy transformations, such as chemical energy in a flashlight battery changing to electrical energy and then to light energy.
Interactivity/ Simulation	**Identify My Change:** In this interactive section of the module, students are presented with various examples of energy transformations and they identify the correct sequence of energy transformations taking place.
WordExplorer	Energy Transformations
Quiz	The questions in the assessment section test the student's understanding and ability to recognize the energy transformations that occur in various situations such as motor vehicles, electrical appliances, photosynthesis, glow sticks, video games, greenhouses, and fossil fuel plants.
Journals	Journal – TEKS 6.2E; 6.9C
Activities	Energy Transformations - Project - TEKS 6.1A, B; 6.2B, C, D, E; 6.3B; 6.4A, B; 6.9C Energy Transformation – STEM – TEKS 6.1A, B; 6.2B, C, D, E; 6.3B; 6.4A, B; 6.9C
Readers	**Wind Farms:** All things wind turbine: What they are, how they work, where they are installed, why we need more of them, and some of their disadvantages. **Science TEKS:** 6.7(A), 6.9(C) **ELA TEKS:** 6.5(F,G), 6.8(D) i, ii, iii **Reading Levels**: 2
	Lighting Now and Then: An explanation of how electricity is produced, alternating and direct currents, and their uses in a small narrative about Ginny and her stay at her grandmother's house. **Science TEKS:** 6.9(C) **Reading Levels**: 2
	Supersonic Flight: The effects, such as sonic booms and shock waves, experienced when a plane approaches Mach 1, or the speed of sound, and how they led to the decline of the Concorde. **Science TEKS:** 6.9(C) **ELA TEKS:** 8.6(C), 8.6(D), 8.8(D) **Reading Levels**: 1

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	Energy Transfer: Transfer of the different kinds of energy against the backdrop of a music concert. **Science TEKS:** 6.7(A), 6.9(C) **ELA TEKS:** 6.10(D), 2019 ELA TEKS: 6.5(H) **Reading Levels**: 1
STAARSmart Tests	**Unit Tests: 6.9 C - Energy Transformations**

Earth and Space 6.10

Unit 1: Plate Tectonics 6.10 A, C, D

Science Concepts TEKS : 6.10 A, C, D	
Instruction Module	**Layers of the Earth**: In this Instruction Module, students learn that Earth is divided into three layers, the crust, mantle, and core. They compare Earth's layers to a model created by students to gain an understanding of the characteristics that make up each layer.
IM Companion	**Layers of the Earth**
Instruction Module	**Tectonic Plates:** In this Instruction Module, students are introduced to the plate tectonic theory. They learn that Earth's crust is broken in tectonic plates that float atop the molten mantle and that the movements of these tectonic plates cause major geologic events such as earthquakes, volcanic eruptions and the formation of mountains and ocean basins.
IM Companion	**Tectonic Plates**
Student Review	**Layers of the Earth:** Students assess and review their understanding of the structural layers and sub-layers of Earth.
Student Review	**Tectonic Plates:** Students assess and review their understanding of Earth's tectonic plates and how they create major geological events, such as earthquakes and volcanoes.
Interactivity/ Simulation	**Building Earth and Matching Plates:** In this Interactivity, students recognize the different layers of the Earth and what it is made up of, by "building" a model Earth. They also recognize the different tectonic plates and their location on the world map.

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WordEXplorer	Plate Tectonics
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Movement of tectonic plates and the changes it brings about on Earth's surface, the layers of the Earth, and the different Tectonic plates.
Journals	Journal 1 – TEKS 6.2E; 6.3B; 6.10D Journal 2 – TEKS 6.10D
Activities	Modeling the Structural Layers of the Earth (Descriptive Investigation) – TEKS 6.1A, B; 6.2A, C, D, E; 6.3C; 6.4A, B; 6.10A Major Tectonics Plates – TEKS 6.2C; 6.10C
Readers	**Tidal Waves:** What constitutes a wave, how they propagate, and the types of waves are presented in this text using the context of tidal waves and their destructive power. **Science TEKS:** 6.10 (D) **Reading Levels**: 2 **Earthquakes - Outward Expression of Earth's Dynamic Interior:** What happens inside and on the surface of Earth during an earthquake, and what scientists have learned from past earthquakes, like the one in 1989 in San Francisco. **Science TEKS:** 6.10(A), 6.10(D) **Reading Levels**: 1
STAARSmart Tests	**Unit Tests: 6.10 A, C, D - Tectonic Plates**

Unit 2 : Rock Cycle 6.10 B

Science Concepts TEKS : 6.10 B	
Instruction Module	**Rocks**: In this Instruction Module, students learn about the three basic types of rocks, igneous, sedimentary and metamorphic. They learn about the processes involved in the formation of these rocks and how the rocks are used in everyday life. They are also introduced to the rock cycle which illustrates how rocks can be transformed into different types of rocks.
IM Companion	**Rock Cycle**
Student Review	**Igneous and Metamorphic Rocks:** Students assess and review their understanding of the formation of igneous and metamorphic rocks.
Student Review	**Sedimentary Rocks:** Students assess and review their understanding of the formation of sedimentary rocks.

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Interactivity/ Simulation	**Rock Transformer:** In this Interactivity, students identify the process that formed a given rock sample and then "transform" it into another rock type by choosing the right process.
WordExplorer	Rock Cycle
Quiz	The questions in the assessment section test the student's understanding of the following concepts: The three types of rocks and the processes that formed them, the correct sequence of changes in each of the processes, and the rock cycle.
Journals	Journal – TEKS 6.10B
Activities	Modeling the Rock Cycle (Descriptive Investigation) – TEKS 6.1A, B; 6.2A, C, D, E; 6.3A, B, C; 6.4A, B; 6.10B
Readers	**Rocks:** What rocks are; their types i.e. igneous, metamorphic, and sedimentary; how they are formed; and how rocks can transform from one type to another. **Science TEKS:** 6.10 (B) **Reading Levels**: 2 **The Hidden Secret to Skyscrapers:** he importance of selecting the right kind of soil while constructing skyscrapers. **Science TEKS:** 6.10(B), 6.3(D) **Reading Levels**: 21
STAARSmart Tests	**Unit Tests: 6.10 B – Rock Cycle**

Earth and Space 6.11

Unit 1 : The Solar System 6.11 A, B,C

Science Concepts TEKS : 6.11 A, B,C	
Instruction Module	**The Sun**: In this Instruction Module, students are introduced to the characteristics of the Sun. They learn how the process of fusion within the core of the Sun produces vast amounts of heat and light energy. They also learn how this energy is transferred through the different layers of the Sun and released into space as heat and light.
IM Companion	**The Sun**
Instruction Module	**The Solar System:** In this Instruction Module, students learn about the characteristics, locations, and some of the physical properties of the objects in our solar system including the planets, the asteroid belt, meteors, comets and Galilean moons.

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IM Companion	**The Solar System**
Instruction Module	**History of Space Exploration:** In this Instruction Module, students learn about the history and future of space exploration. They are introduced to some of the people in history who impacted space exploration. They learn how inventions such as telescopes and space vehicles have helped in space exploration. They also examine how Newton's law of gravity explains the movement of plants in our solar system.
IM Companion	**History of Space Exploration**
Student Review	**The Sun:** Students assess and review their understanding of different layers that make up the Sun and the process of fusion within the Sun that produces heat and light.
Student Review	**The Solar System:** Students assess and review their understanding of the locations, the movements, and some of the physical properties of the planets and the Galilean moons in the solar system.
Student Review	**Asteroids, Meteors, and Comets:** Students assess and review their understanding of some of the physical properties of the objects in our solar system, such as the asteroid belt, meteors, and comets.
Student Review	**History of Space Exploration:** Students assess and review their understanding of some of the historical models of the solar system and how modern inventions have helped in space explorations.
Interactivity/ Simulation	**The Spotlight:** In this Interactivity, students identify the planets with the help of some clues and determine their correct location in the solar system.
WordExplorer	The Solar System
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Characteristics, composition, locations, and movements of the Sun, planets, meteors, asteroids, and comets, and historical contributions of various scientists.
Journals	Journal 1 – TEKS 6.2C, E; 6.11A Journal 2 – TEKS 6.2C, E; 6.11B Journal 3 – TEKS 6.3B; 6.11A
Activities	The Solar System – TEKS 6.3D; 6.11B Celestial Bodies in the Solar System – TEKS 6.2C; 6.11A

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Readers	**Plants in Space:** The advent of space travel opened new avenues for scientific experiments in space, and this text explains the general observations seen of plants growing in zero gravity. **Science TEKS:** 6.11 (C), 6.3 (D) **ELA TEKS:** 6.2(B), 6.5(F,G), 6.8(D) i, ii, iii **Reading Levels**: 2 **What Objects Share our Solar System:** Planets, dwarf planets, moons, asteroids, comets, and other celestial bodies that make up our Solar System. **Science TEKS:** 6.11(A), 6.3(D) **Reading Levels**: 2 **Inner Planets:** A look at the unique characteristics of the inner planets Mercury, Venus, Earth, and Mars. **Science TEKS:** 6.11(A) **ELA TEKS:** 6.2(B), 6.8(D) **Reading Levels**: 2 **Interplanetary Real Estate:** Written in the style of a real estate salesperson's pitch, the text introduces Jupiter's moons and the asteroid belt that circles our Solar System as options for rent or purchase. **Science TEKS:** 6.11 (A) **Reading Levels**: 2 **Basketball on the Moon:** The effects of mass on gravity explained in an imaginative scenario of basketball played on the Moon. **Science TEKS:** 6.11(B) **Reading Levels**: 2 **Space Industry:** The achievements of the US space industry through the years, mentions of Skylab, Hubble, and the aid provided to the ISS. **Science TEKS:** 6.11(C), 6.3(D) **ELA TEKS:** 6.3(A), 6.5(F), 6.9(D) **Reading Levels**: 1 **Mass, Weight, and Gravity:** Students in Mr. Smedley's class watch videos of astronauts walking and experimenting on the Moon, and review their understanding of how mass, weight, and gravity are connected. **Science TEKS:** TEKS: 6.11(A); 6.11(B) **Reading Levels**: 1 **The Solar System:** What constitutes our solar system and how scientists think it was formed. **Science TEKS:** 6.11(A), 6.3(D) **ELA TEKS:** 6.10(C), 2019 ELA TEKS: 6.8(D) (iii) **Reading Levels**: 1
STAARSmart Tests	**Unit Tests: 6.11 A, B,C – The Solar System**

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Organisms and Environments 6.12

Unit 1 : Cell: The Basic Unit of Life 6.12 A, B

Science Concepts TEKS : 6.12 A, B	
Instruction Module	**Cell: The Basic Unit of Life**: In this Instruction Module, students learn that all living organisms are composed of cells and that the cell is the basic unit of life. They examine how organisms can be unicellular or multicellular. They are also introduced to some characteristics of cells and the types of microscopes scientists use to view cells.
IM Companion	**Cell: The Basic Unit of Life**
Instruction Module	**Eukaryotic and Prokaryotic Cells:** In this Instruction Module, students compare and contrast prokaryotic and eukaryotic cells. They are also introduced to some of the functions of the cell structures.
IM Companion	**Eukaryotic and Prokaryotic Cells**
Student Review	**Cell: The Basic Unit of Life:** Students assess and review their understanding of cells and that organisms can be unicellular or multicellular.
Student Review	**Eukaryotic and Prokaryotic Cells:** Students assess and review their understanding of the classification of cells as prokaryotic or eukaryotic depending on whether they have a nucleus or not.
Interactivity/ Simulation	**Sorting Cells:** In this Interactivity, students identify the components of cells that are common to both kinds of cells and the components which are present either in eukaryotic cells or in prokaryotic cells.
Wordexplorer	Cell: The Basic Unit of Life
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Similarities and differences between a prokaryotic and eukaryotic cell.
Journals	Journal 1 – TEKS 6.2E; 6.12A Journal 2 – TEKS 6.2E; 6.3B; 6.12B
Readers	**The Building Blocks of Life:** A second narrative of an explanation of cells and their organelles using toy building blocks. **Science TEKS:** 6.12(A) (B) (D **ELA TEKS:** 4.11(C), 2019 ELA TEKS: 4.9(D)iii **Reading Levels**: 3
STAARSmart Tests	**Unit Tests: 6.12 A, B – Cell: The Basic Unit of Life**

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Unit 2 : Taxonomic Classification 6.12 C, D	
Science Concepts TEKS : 6.12 C, D	
Instruction Module	**Taxonomic Classification**: In this Instruction Module, students learn that taxonomic classification groups living organisms into smaller and smaller groups based on their similarities. They also understand the significance of using a standardized taxonomic classification system.
IM Companion	**Taxonomic Classification**
Instruction Module	**Three Domain Classification:** In this Instruction Module, students learn that all organisms are grouped into three domains - Archaea, Bacteria and Eukarya. They compare and contrast the main characteristics of organisms belonging to each domain. They also learn that organisms in Domain Eukarya are further divided into four kingdoms - Protista, Fungi, Plantae and Animalia and compare the features of organisms belonging to each kingdom.
IM Companion	**Three Domain Classification**
Student Review	**Taxonomic Classification:** Students assess and review their understanding of why the taxonomic classification was developed and how it classifies organisms in groups of decreasing sizes starting with Domains.
Student Review	**Classification of Organisms**: Students assess and review their understanding of the different characteristics used to classify organisms, such as prokaryotic or eukaryotic, unicellular or multicellular, autotrophic or heterotrophic classifications, and mode of reproduction.
Student Review	**Domains Bacteria and Archaea:** Students assess and review their understanding of the characteristics of the organisms of the domains Archaea and Bacteria.
Student Review	**Domain Eukarya:** Students assess and review their understanding of the characteristics of the organisms of the domain Eukarya and its four kingdoms: Protista, Fungi, Planta, and Animalia.
Interactivity/ Simulation	**Sort the Lot!:** In this Interactivity, students classify organisms into kingdoms based on their characteristics.
WordExplorer	Taxonomic Classification
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Classification of organisms based on their characteristics, recognizing characteristics based on their classification, the hierarchy of classification

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Journals	Journal 1 – TEKS 6.2E; 6.12D Journal 2 – TEKS 6.12C
Activities	The Basic Characteristics of Kingdoms – *TEKS 6.2D, E; 6.12C, D* Investigating Reproductive Adaptations of Seed Plants, Part 1 – *TEKS: 6.1A, 6.1B; 6.2B, 6.2C, 6.2D, 6.2E; 6.3B; 6.4A, 6.4B, 6.12D* Investigating Reproductive Adaptations of Seed Plants, Part 2 – TEKS: *6.1A, 6.1B; 6.2B, 6.2C, 6.2D, 6.2E; 6.3B; 6.4A, 6.12D* Growing and Observing Yeast – 6.1A, B; 6.2 A, C, D, E; 6.4A, B; 6.12D
Readers	**The Building Blocks of Life:** A second narrative of an explanation of cells and their organelles using toy building blocks. **Science TEKS:** 6.12(A) (B) (D) **ELA TEKS:** 4.11(C), 2019 ELA TEKS: 4.9(D)iii **Reading Levels**: 3
STAARSmart Tests	**Unit Tests: 6.12 C, D – Taxonomic Classification**

Unit 3 : Ecosystem - Levels of Organization 6.12 E, F

Science Concepts TEKS : 6.12 E, F	
Instruction Module	**Components of an Ecosystem**: In this Instruction Module, students learn that an ecosystem is composed of abiotic and biotic components. They understand that these components are constantly interacting with each other. They also examine the structural hierarchy within an ecosystem from organism, to population, to community, to ecosystem.
IM Companion	**Components of an Ecosystem**
Student Review	**Components of an Ecosystem:** Students assess and review their understanding of the abiotic and biotic factors of ecosystem, including the structural hierarchy of organisms within.
Interactivity/ Simulation	**Ocean Ecosystem:** In this Interactivity, students observe changes in one component of an ecosystem and predict its possible effects on the rest of the ecosystem.
WordExplorer	Ecosystem - Levels of Organization
Quiz	The questions in the assessment section test the student's understanding of the following concepts: The difference between abiotic and biotic components of the ecosystem, interactions between the living and nonliving components, and the levels of organization in an ecosystem.
Journals	Journal 1 – TEKS 6.2C, E; 6.12E Journal 2 – TEKS 6.2C, E; 6.3B; 6.12E

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Activities	Levels of Organization – TEKS 6.2C; 6.12F Evaporating Saltwater (Descriptive Investigation) – TEKS 6.1A, B; 6.2A, C, D, E; 6.4A, B; 6.12E
STAARSmart Tests	**Unit Tests: 6.12 E, F – Components of an Ecosystem**

Grade 7 Course Description

Scientific Investigation and Reasoning Skills

Unit 1: Safety and Scientific Investigations 8.1A, 1B, 2A, 2B, 2C, 2D, 2E, 3A, 3B, 3C, 3D, 4A, 4B

Scientific Investigation and Reasoning TEKS: *Grades 6-8 1A, B; 2A, B, C, D, E; 3A, B, C, D; 4A, 4B*

Instruction Module	**Safety and Scientific Investigation:** In this Instruction Module, students learn how to plan and implement descriptive, comparative, and experimental investigations. They learn to ask well-defined questions, formulate testable hypotheses, collect, record, and analyze data, construct tables and graphs, communicate valid conclusions and predict trends. They also review safe practices and safety equipment needed when doing scientific investigations.
IM Companion	**Safety and Scientific Investigation**
WordExplorer	Safety and Scientific Investigation

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Quiz	The questions in the assessment section test the student's understanding of the following concepts: Similarities and differences between the three types of scientific investigations: Comparative, descriptive, and experimental; independent and dependent variables, and use of safety equipment such as eyewash, fire blankets, safety goggles, gloves, and aprons.
Journals	Journal – Safe Practices and Safety Equipment – TEKS 8.1A
Activity	Move it! Move it! - Molecules in Motion – TEKS 6.1A, B; 6.2B, C, D, E; 6.4A, B; 7.1A, B; 7.2A, C, D, E; 7.4A, B; 8.1A, B; 8.2A, C, D, E; 8.4A, B
Readers	**Theories and Laws:** Clearing the misconceptions surrounding theories and laws, and they are used by the scientific community. **Science TEKS:** 7.3(A) **ELA TEKS:** 7.5(F), 7.8(D)i **Reading Levels**: 1

Matter and Energy 7.5

Unit 1 : Photosynthesis and Energy Conversion 7.5 A

Science Concepts TEKS : 7.5 A	
Instruction Module	**Photosynthesis**: In this Instruction Module, students understand that green plants produce their own food through the process of photosynthesis. They are introduced to the structures involved in photosynthesis and learn how those structures use light energy to convert carbon dioxide and water into glucose and oxygen.
IM Companion	**Photosynthesis**
Instruction Module	**Plant Adaptations:** In this Instruction Module, students are introduced to adaptations plants have that help them survive in their environments. Students examine some leaf and root adaptations found on plants in tropical rainforests, deciduous forests and deserts.
IM Companion	**Plant Adaptations**
Student Review	**Photosynthesis:** Students assess and review their understanding of how plants transform the radiant energy of the Sun into chemical energy through photosynthesis.
Interactivity/ Simulation	**The Green Machine!:** In this simulation, students investigate the effect of light on the rate of photosynthesis by varying the intensity of light that plants receive and measuring the amount of oxygen released.

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WordExplorer	Photosynthesis and Energy Conversion
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Recognizing the structures where photosynthesis can take place, ingredients required for photosynthesis, the reason for the green color of leaves, structure of leaves, and structure of roots that help in absorption of water.
Journals	Journal – TEKS 7.2A, E; 7.5A
Activities	Extracting Chlorophyll from Plant Leaves (Descriptive Investigation) – TEKS 7.1A, B; 7.3D; 7.4A, B; 7.5A
STAARSmart Tests	Unit Tests: 7.5 A – Photosynthesis and Energy Conversion

Unit 3 : Energy Flow in Ecosystems 7.5 B

Science Concepts TEKS : 7.5 B	
Instruction Module	**The Food Chain**: In this Instruction Module, students learn how organisms are interconnected to each other based on who eats what and how these relationships are represented using a food chain. They begin to recognize how energy flows through a food chain from producers to consumers and gain an understanding of how decomposers return materials to the soil.
IM Companion	**The Food Chain**
Instruction Module	**Ecosystems–Energy Flow:** In this Instruction Module, students learn that flow of energy in a food chain can be represented using an energy pyramid with the producers at the base and the tertiary carnivores at the top. They are introduced to the idea that overlapping food chains interconnect to form food webs that are more complex compared to food chains.
IM Companion	**Ecosystems–Energy Flow**
Student Review	**The Food Chain:** Students assess and review their understanding of food chains that show the linear relationship of some organisms in an ecosystem that depend on each other for food and energy.

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Student Review	**Ecosystems–Energy Flow:** Students assess and review their understanding of food webs, which show how organisms are dependent on each other for food, and energy pyramids, which represent how much energy is transferred to each level of consumers beginning with producers at the base.
Interactivity/ Simulation	**Build the Food Chain!!:** In this Interactivity students create a viable food chain in order for energy to flow to the top predator and predict the amount of energy available at a particular trophic level.
WordExplorer	Energy Flow in Ecosystems
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Food chains, food webs, energy pyramids, biomass.
Journals	TEKS 7.2C, D, E; 7.5B
Activities	Flow of Energy in Ecosystems - TEKS 7.2C, D, E; 7.3B; 7.4A; 7.5B
STAARSmart Tests	Unit Tests: 7.5 B – Energy Flow in Ecosystems

Matter and Energy 7.6

Unit 1 : Digestion - Physical and Chemical Changes 7.6 A

Science Concepts TEKS 7.6 A	
Instruction Module	**Nutrients and Digestion**: In this Instruction Module, students learn that carbohydrates, lipids and proteins are nutrients required by our bodies. They learn how these nutrients are physically and chemical broken down during the process of digestion and absorbed into the bloodstream.
IM Companion	**Nutrients and Digestion**
Student Review	**Nutrients and Digestion:** Students assess and review their understanding of how carbohydrates are broken down into simpler sugars through physical and chemical processes in our bodies during digestion.
WordExplorer	Organic Compounds and the Living World
Quiz	The questions in the assessment section test the student's understanding of the following concepts:

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	Structures of organic compounds and the physical and chemical changes occurring at each stage of digestion.
Journals	Journal 1 – TEKS 7.2E Journal 2 – TEKS 7.2E Journal 3 – TEKS 7.4B
Activities	Food in the Body – TEKS 7.2C, D, E; 7.3B; 7.4A; Identifying Organic and Inorganic Compounds – TEKS 7.2C, E; 7.3B; 7.4A; 7.6A Science Safety Scenario – TEKS 7.1A, B; 7.4B
STAARSmart Tests	Unit Tests: 7.6 A – Physical and Chemical Changes

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Force, Motion, and Energy 7.7

Unit 1: Energy Transformations in an Organism 7.7 A

Science Concepts TEKS 7.7 A	
Instruction Module	**Work, Energy, and Food:** In this Instruction Module, students are introduced to the energy transformations that take place when work is done. They learn that the chemical energy obtained from food is stored in the muscles and other parts of our body. They observe and recognize how this chemical energy is transferred and transformed into kinetic energy, potential energy and thermal energy when we do work.
IM Companion	**Work, Energy, and Food**
Student Review	**Work, Energy, and Food:** Students assess and review their understanding of how chemical energy from food, stored in the muscles and other parts of our body, is transformed into mechanical and thermal energy when we do work.
Interactivity/ Simulation	**Work It!:** In this Interactivity, students observe different situations and figure out if work is being done. They also calculate the amount of work being done using the values of the force applied and the distance moved.
WordExplorer	Energy Transformations in an Organism
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Force, work, and energy transformation.
Journals	Journal 1 – TEKS 7.2C, E; Journal 2 – TEKS 7.7A Journal 3 – TEKS 7.2E; 7.7A
Activities	The Energy Stored in Foods (Comparative Investigation) – TEKS 7.1A, B; 7.2A, C, D, E; 7.3A, B; 7.4A, B; 7.7A Work and Force 1- TEKS 7.2C, E; 7.4A; Work and Force 2 - TEKS 7.2C, D, E; 7.4A; Calculating Work (Comparative Investigation)– TEKS 7.1A, B; 7.2A, C, D, E; 7.4A, B;

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STAARSmart Tests	Unit Tests: 7.7 A – Energy Transformations in an Organism

Unit 2 : Forces Affecting Motion in Organisms 7.7 B

Science Concepts TEKS 7.7 B	
Instruction Module	**Forces Affecting Motion in Organisms**: In this Instructional Module, students are introduced to the forces that act on plants and humans. They understand how force affects seed germination. They also observe how geotropism and turgor pressure are a result of forces acting on a plant, and how the human heart provides the necessary force for blood circulation.
IM Companion	**Forces Affecting Motion in Organisms**
Student Review	**Forces Affecting Motion in Organisms:** Students assess and review their understanding of forces that affect motion in organisms - such as emergence of seedlings, turgor pressure, and geotropism in plants, and blood circulation in humans.
WordExplorer	Forces Affecting Motion in Organisms
Quiz	The questions in the assessment section test the student's understanding of the following concepts: forces that affect plant growth, germination, positive and negative geotropism, and turgor pressure.
Journals	Journal – TEKS 7.2E; 7.7B
Activities	Forces Affecting Motion in Organisms (Descriptive Investigation) – TEKS 7.1A, B; 7.2A, C, D, E; 7.3B, C; 7.4A, B; 7.7B Plants and Phototropism (Comparative Investigation) – TEKS 7.1A, B; 7.2A, C, D, E; 7.4A, B; 7.7B
STAARSmart Tests	Unit Tests: 7.7 B – Forces Affecting Motion in Organisms

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Earth and Space 7.8

Unit 1: Catastrophic Events and Ecosystems 7.8 A

Science Concepts TEKS 7.8 A	
Instruction Module	**Catastrophic Events and Ecosystems:** In this Instruction Module, students are introduced to the effect of catastrophic events on ecosystems. They learn how hurricanes, tornadoes, forest fires, floods and even asteroids can impact ecosystems.
IM Companion	**Catastrophic Events and Ecosystems**
Student Review	**Catastrophic Events and Ecosystems:** Students assess and review their understanding of how catastrophic events, such as floods, hurricanes, or tornadoes, impact ecosystems.
Interactivity/ Simulation	**Alex's Soil Lab:** In this Interactivity, students predict the type of catastrophic event that has occurred in a region by examining the components of soil in that area.
WordExplorer	Catastrophic Events and Ecosystems
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Biotic and abiotic factors of an ecosystem, different types of ecosystems and the effects that various catastrophic events such as hurricanes, forest fires, floods, and asteroid impacts, have on these ecosystems.
Journals	Journal – TEKS 7.2C, E; 7.8A
Readers	**The Approach of the Hurricane Mathew:** Written before the onslaught of Hurricane Matthew, the text describes the strength of a hurricane and the damage they cause. **Science TEKS:** 7.8(A) **ELA TEKS:** 7.6(A, B, C), 7.8(D)i, ii,iii **Reading Levels**: 2 **Put it Out or let it burn?:** The story behind Smokey Bear, the mascot of the Prevent Forest Fire campaign, and a look at some benefits of forest fires. **Science TEKS:** 7.8(A) **Reading Levels**: 2
STAARSmart Tests	Unit Tests: 7.8 A – Catastrophic Events and Ecosystems

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Unit 2 : Slow Changes in Ecoregions 7.8 B	
Science Concepts TEKS 7.8 B	
Instruction Module	**Weathering:** In this Instruction Module, students learn about the process of weathering and understand how mechanical weathering differs from chemical weathering. They learn about the agents of weathering including water, wind, ice, temperature changes, and organisms, and understand how weathering changes the surface of Earth.
IM Companion	**Weathering**
Instruction Module	**Erosion:** In this Instruction Module, students learn about the process of erosion. They observe how wind, water, ice and gravity can erode Earth's surface and cause changes.
IM Companion	**Erosion**
Instruction Module	**Deposition:** In this Instruction Module, students learn about the process of deposition. They observe and understand how landforms such as deltas, alluvial fans, sand dunes, and moraines are a result of deposition by water, wind, and glaciers.
IM Companion	**Deposition**
Student Review	**Weathering:** Students assess and review their understanding of the process, types, and agents of weathering.
Student Review	**Erosion:** Students assess and review their understanding of the process, types, and agents of erosion.
Student Review	**Deposition:** Students assess and review their understanding of the process, types, and agents of deposition.
Interactivity/ Simulation	**Dissolve and Resolve:** In this simulation students understand the effect of acid rain on different types of rocks. They test how acid affects marble, limestone, quartz, and granite by submerging them in acid that has a pH level similar to that of acid rain. They measure and record how much mass, if any, the rocks lost after 24 hours. They analyze the data collected and arrive at a conclusion.
WordExplorer	Slow Changes in Ecoregions
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Mechanical weathering, chemical weathering, abrasion, erosion, deposition, land formations.
Journals	Journal – TEKS 7.8B

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Activities	Drought and its Effect on Texas Ecoregions (Research Project) – TEKS 7.4A; 7.8B
Readers	**Deforestation:** The life-saving benefits of saving our forests, and how deforestation affects us as seen in Madagascar. **Science TEKS:** 7.8(B) **Reading Levels**: 1
STAARSmart Tests	Unit Tests: 7.8 B – Slow Changes in Ecoregions

Unit 3: Watersheds 7.8 C

Science Concepts TEKS 7.8 C	
Instruction Module	**Watersheds**: In this Instruction Module, students are introduced to watersheds. They learn what a watershed is and understand the significance of watersheds to all life on Earth. They also observe how watersheds are affected by natural and human activities, and learn what we can do to help protect watersheds.
IM Companion	**Watersheds**
Student Review	**Watersheds:** Students assess and review their understanding of the impact of human activities on groundwater and surface water in a watershed.
Interactivity/ Simulation	**Nitrogen Levels in Water:** In this Simulation, students collect water samples from different regions in a watershed and conduct water quality tests to discover the source of nitrogen that is entering the ocean.
WordExplorer	Watersheds
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Meaning of a water shed, role of gravity, boundaries of a watersheds, human activities that affect groundwater and surface water, ground water infiltration, runoff, the effects of erosion and sedimentation on watersheds.
Journals	Journal – TEKS 7.2C, E; 7.8C
Activities	Human Activity in Watersheds (Descriptive Investigation) – TEKS 7.1A, B; 7.2A, C, D, E; 7.3B, C; 7.4A, B; 7.8C pH Tolerance of Aquatic Organisms – TEKS 7.1A, B; 7.2A, C, D, E; 7.3B; 7.4A, B; 7.8C

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Readers	**Water Pollution:** Drastic effects of water pollution on the environment, such as algal blooms, and how they water pollution is caused. **Science TEKS:** 5.9(C), 7.8(C), 8.11(C) **Reading Levels**: 1
STAARSmart Tests	Unit Tests: 7.8 C – Watersheds

Earth and Space 7.9

Unit 1 : Life in our Solar System 7.9 A, B

Science Concepts TEKS 7.9 A, B	
Instruction Module	**Life in our Solar System**: In this Instruction Module, students learn that Earth is the only object in our solar system that can support life. They recognize the characteristics of Earth that make life possible such as its distance from the Sun, the presence of water, the composition of its atmosphere, and its gravitational pull.
IM Companion	**Life in our Solar System**
Instruction Module	**Living in Space:** In this Instruction Module, students learn that conditions in space do not support life. They recognize the need for specially designed spacecraft's that provide oxygen, water, and other conditions necessary for life to support astronauts in space.
IM Companion	**Living in Space**
Student Review	**Life in our Solar System:** Students assess and review their understanding of the characteristics of Earth, such as its distance from the Sun, the presence of water, and the composition of its atmosphere, that make it possible for life to exist.
Student Review	**Living in Space:** Students assess and review their understanding of the accommodations that allow astronauts to live and work in space.
Interactivity/ Simulation	**Will It Increase or Decrease?:** In this Interactivity, students use a model to change the location of the Earth and predict how it would affect the amount of sunlight and temperature if Earth was closer to or further away from the Sun. Then, they change the mass of the Earth and predict its effect on the gravitational force.

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WordExplorer	Life in Our Solar System
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Effect of mass on gravity, the role of ozone, the composition of Earth's atmosphere and its similarity to a greenhouse, and comparing features of Earth and Mars from a data table and arriving at conclusions regarding possibility of life on Mars.
Journals	Journal 1 – TEKS 7.2E; 7.9A Journal 2 – TEKS 7.2C, E; 7.9A Journal 3 – TEKS 7.9B
STAARSmart Tests	Unit Tests: 7.9 A, B – Life in our Solar System

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Organisms and Environments 7.10

Unit 1 : Diversity of Life 7.10 A, B

Science Concepts TEKS 7.10 A, B	
Instruction Module	**Factors Affecting Ecosystems**: In this Instruction Module, students learn that an ecosystem is made of abiotic and biotic components that are constantly interacting with one another. They understand how natural occurrences and human activates can affect ecosystems. They also gain an understanding of how biodiversity contributes to the sustainability of an ecosystem.
IM Companion	**Factors Affecting Ecosystems**
Instruction Module	**Biomes and their Environments:** In this Instruction Module, students are introduced to biomes. They learn about the different biomes on Earth and recognize some of the environmental and biotic characteristics that make each biome unique.
IM Companion	**Biomes and their Environments**
Student Review	**Biodiversity:** Students assess and review their understanding of how a higher variety of organisms in an ecosystem decreases the chances of an ecosystem collapsing when a food chain collapses.
Student Review	**Biomes-Deserts and Forests:** Students assess and review their understanding of features of deserts and forests biomes around the world, and how the organisms found in each have adapted to survive in them.
Student Review	**Biomes: Grasslands and Tundra:** Students assess and review their understanding of features of grasslands and tundra biomes around the world, and how the organisms found in each have adapted to survive in them.
Student Review	**Aquatic Biomes:** Students assess and review their understanding of features of aquatic biomes around the world, and how aquatic organisms have adapted to survive in them.
Interactivity/ Simulation	**Biomes and their Organisms:** In this interactivity, students will identify and sort organisms that belong and do not belong to a biome.
WordExplorer	Diversity of Life
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Biodiversity, biotic and abiotic factors, adaptations, environmental conditions of different biomes.

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Journals	Journal 1 – TEKS 7.2C, E; 7.10A Journal 2 – TEKS 7.2C, E; 7.10B
Activity	Observing Biodiversity in a Schoolyard Microhabitat (Descriptive Investigation) – TEKS 7.1A, B; 7.2A, C, D, E; 7.4A, B; 7.10A Insect Diversity (Descriptive Investigation) – TEKS 7.1A, B; 7.2A, C, D, E; 7.4A; 7.10A
Readers	**Coral Reefs and Ocean Diversity:** An explanation of how coral reefs provide food and shelter to other creatures, protect the shoreline, and provide economic benefits. It highlights the importance of protecting the coral reefs. **Science TEKS:** 3.9(A), 7.10(A), 8.11(C) **ELA TEKS:** 3.7(C), 3.9(D)i, ii, iii, 3.10(A, B, C) **Reading Levels**: 2
STAARSmart Tests	Unit Tests: 7.10 A, B – Diversity of Life

Unit 2 : Ecological Succession 7.10 C

Science Concepts TEKS 7.10 C	
Instruction Module	**Ecological Succession**: In this Instruction Module, students learn that the gradual change in ecosystems over time is called ecological succession. They differentiate between primary and secondary succession. They also observe the ecological changes that take place over time starting with a hole in the ground.
IM Companion	**Ecological Succession**
Student Review	**Ecological Succession:** Students assess and review their understanding of the stages of ecological succession and the difference between primary and secondary ecological succession.
Interactivity/ Simulation	**Fit Them Right!:** In this Interactivity, students recognize the different stages of ecological succession in three different ecosystems.
WordExplorer	Ecological Succession
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Ecological succession in various ecosystems, the different stages of succession, primary and secondary successions.

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Journals	Journal – TEKS 7.2C, E; 7.10C
Activity	Ecological Succession – *TEKS 7.2D, E; 7.3B; 7.10C*
STAARSmart Tests	Unit Tests: 7.10 C – Ecological Succession

Organisms and Environments 7.11

Unit 1 : Using Dichotomous Keys 7.11 A

Science Concepts TEKS 7.11 A	
Instruction Module	**Using Dichotomous Keys**: In this Instruction Module, students are introduced to dichotomous keys. They learn that a dichotomous key is used to identify organisms based on their physical traits and observe examples of how it is used to identify plants and animals.
IM Companion	**Using Dichotomous Keys**
Student Review	**Using Dichotomous Keys:** Students assess and review their understanding of why dichotomous keys are used and how to use them to identify plants and animals.
WordExplorer	Using Dichotomous Keys
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Classification of organisms into groups, recognition of traits, use of a dichotomous key.
Journals	Journal – TEKS 7.2C, E; 7.11A
Activity	Dichotomous Keys (Comparative Investigation) – TEKS 7.1A, B; 7.2A, C, D, E; 7.3A 7.4A, B; 7.11A
STAARSmart Tests	Unit Tests: 7.11 A – Using Dichotomous Keys

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Unit 2 : Variability and Survival 7.11 B

Science Concepts TEKS 7.11 B	
Instruction Module	**Variations and Natural Selection:** In this Instruction Module, students learn that organisms belonging to the same species show small differences in traits called variations. They are introduced to the process of natural selection by observing how variations best suited to an environment help an organism survive and reproduce.
IM companion	**Variations and Natural Selection**
Instruction Module	**Types of Adaptations:** In this Instruction Module, students compare physical, behavioral, and physiological adaptations. They observe examples each and gain an understanding of how camouflage, migration, dormancy, and bioluminescence help organisms survive.
IM companion	**Types of Adaptations**
Student Review	**Variations in Organisms:** Students assess and review their understanding of physical, behavioral, and physiological adaptations that enhance survival in organisms.
Interactivity/ Simulation	**Survivor:** In this Interactivity, students analyze and select the traits that might be most suitable for survival based on the environment provided. **Mass Matters?:** In the simulation, students "conduct" an investigation to determine if the mass of seeds (chestnut) affects the rate of germination. They group the seeds based on their mass and observe and compare the number of seeds that grow into plants in each group. They arrive at a conclusion based on their observations.
WordExplorer	Variability and Survival
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Natural selection, adaptations, migration, reading data from a graph, variations in a species, comparison of migration and hibernation, bioluminescence.
Journals	Journal – TEKS 7.2C, E; 7.11B
STAARSmart Tests	Unit Tests: 7.11 B – Variability and Survival

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Unit 3 : Natural Selection and Selective Breeding 7.11 C	
Science Concepts TEKS 7.11 C	
Instruction Module	**Factors Influencing Natural Selection**: In this Instruction Module, students learn that natural selection is the process in which organisms with genetic traits best suited to an environment survive and reproduce. They observe how populations of species change over time due to natural selection. They also learn how environmental changes influence natural selection.
IM Companion	**Factors Influencing Natural Selection**
Instruction Module	**Selective Breeding:** In this Instruction Module, students learn that the process of selective breeding influences the traits of future generations and can result in new breeds of animals and plants. They compare hybridization and inbreeding, two types of selective breeding, and recognize some the advantages and disadvantages of each.
IM Companion	**Selective Breeding**
Student Review	**Factors Influencing Natural Selection:** Students assess and review their understanding of natural selection and factors that influence it, such as variations within a population and environmental factors.
Student Review	**Selective Breeding:** Students assess and review their understanding of how humans create new species by selective breeding and some common selective breeding techniques, such as inbreeding and hybridization.
Interactivity/ Simulation	**Feed the Finch!:** In this Simulation, students investigate and find out if the shape of the beaks of finches is an adaptation to the kind of food available. They use different kinds of pliers to represent beaks and observe the type of food particles that can be picked up by each.
WordExplorer	Natural Selection and Selective Breeding
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Natural selection, selective breeding, reading data from a graph regarding natural selection in a population, comparing hybridization and inbreeding.
Journals	Journal 1 – TEKS 7.2E; 7.11C Journal 2 – TEKS 7.2C, E; 711C Journal 3 - TEKS 7.2C, E; 7.11C
Activity	Selective Breeding – TEKS 7.2E; 7.3A; 7.11C

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	Geographic Speciation and Natural Selection – TEKS 7.3D; 7.4A; 7.11C
Readers	**Natural Selection:** A brief look at natural selection, explained using the unique organisms found on the Galapagos Islands. **Science TEKS:** 7.11(C) **ELA TEKS:** 7.10, 2019 ELA TEKS: 7.5.(F) **Reading Levels**: 2
STAARSmart Tests	Unit Tests: 7.11 C – Natural Selection and Selective Breeding

Organisms and Environments 7.12

Unit 1 : Internal Structural Adaptations 7.12 A

Science Concepts TEKS 7.12 A	
Instruction Module	**Internal Structural Adaptations**: In this Instruction Module, students understand that animals and plants have internal structural adaptations that increase their chances of survival in their environment. They understand the importance of some internal structural adaptations such as the hollow bones in some birds, gills in fish, and xylem and phloem in plants.
IM Companion	**Internal Structural Adaptations**
Student Review	**Internal Structural Adaptations:** Students assess and review their understanding of the adaptations of internal structures that allow specific functions to enhance survival in organisms.
Interactivity/ Simulation	**Name That Adaptation!:** In the Interactive section of the module, students click on different parts of an organism and learn how that structure helps the organism to adapt to its environment. Then, they identify which of the adaptations is an internal structural adaptation.
WordExplorer	Internal Structural Adaptations
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Adaptations, structural, behavioral and physiological adaptations, and internal and external structural adaptations.
Journals	Journal 1 – TEKS 7.11A Journal 2 – TEKS 7.2C, D, E; 7.11A
Activity	Internal Structural Adaptations of Plants (Experimental Investigation) – TEKS 7.1A, B; 7.2A, C, D, E; 7.3A 7.4A, B; 7.11A

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STAARSmart Tests	Unit Tests: 7.12 A – Internal Structural Adaptations

Unit 2 : Human Body Systems 7.12 B	
Science Concepts TEKS 7.12 B	
Instruction Module	**Respiratory and Circulatory Systems**: In this Instruction Module, students are introduced to the respiratory and circulatory systems. They learn about the structures and functions of each system, and recognize how both systems are interconnected.
IM Companion	**Respiratory and Circulatory Systems**
Instruction Module	**Skeletal and Muscular Systems:** In this Instruction Module, students are introduced to the skeletal and muscular systems. They learn about the structures and functions of each system, and recognize how both systems are interconnected. The also compare the types of joints and types of muscles found in the human body.
IM Companion	**Skeletal and Muscular Systems**
Instruction Module	**Digestive and Excretory Systems:** In this Instruction Module, students are introduced to the digestive and excretory systems. They observe and learn about the structures and functions of each system.
IM Companion	**Digestive and Excretory Systems**
Instruction Module	**Integumentary System:** In this Instruction Module, students learn that the integumentary system is made of the skin, hair and nails. They gain an understanding of the structures and functions of the skin.
IM Companion	**Integumentary System**
Instruction Module	**Nervous System:** In this Instruction Module, students learn about the structures and function of the nervous system. They observe how nerves carry electrical impulses to and from the brain, and understand that different parts of the brain have different functions.
Instruction Module	**Endocrine and Reproductive Systems:** In this Instruction Module, students are introduced to the endocrine and reproductive systems. They learn that structures called glands make up the endocrine system and understand how these glands function to help regulate

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	the human body. They also learn about the structural components of the male and female reproductive systems and their functions.
IM Companion	**Endocrine and Reproductive Systems**
Student Review	**Respiratory System:** Students assess and review their understanding of the structural components, the way they operate, and primary functions of the respiratory system.
Student Review	**Circulatory System:** Students assess and review their understanding of the structural components, the way they operate, and primary functions of the circulatory system.
Student Review	**Skeletal and Muscular Systems:** Students assess and review their understanding of the structural components, the way they operate, and primary functions of the skeletal and muscular system.
Student Review	**Digestive and Excretory Systems:** Students assess and review their understanding of the structural components, the way they operate, and primary functions of the digestive and excretory system.
Student Review	**Integumentary System:** Students assess and review their understanding of the structural components, the way they operate, and primary functions of the integumentary system.
Student Review	**Nervous System:** Students assess and review their understanding of the structural components, the way they operate, and primary functions of the nervous system.
Student Review	**Endocrine and Reproductive Systems:** Students assess and review their understanding of the structural components, the way they operate, and primary functions of the endocrine and reproductive systems.
Interactivity/ Simulation	**Dr.Fix-it!**: In this Interactivity, students identify organs that are missing from an organ system and drag and drop the right organ to its right location in the organ system.
WordExplorer	Human Body Systems
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Organs and organ systems in the human body, the functions of organ systems, the effects that different organs have on other organ systems.
Journals	Journal – TEKS 7.2E; 7.12B
Activity	Human Body Systems – TEKS 7.2C, E; 7.3B; 7.12B
Readers	**The Science Behind Skin Protection** The impact of the Sun's rays on skin, how ultraviolet radiation is categorized, and how to protect oneself from it. **Science TEKS:** 7.12(B) **ELA TEKS:** 7.10(D), 2019 ELA TEKS: 7.5(H) **Reading Levels**: 1

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	Breathe in and Breathe out: The journey of a tiny blood cell through the respiratory and cardiovascular systems of the human body. **Science TEKS:** 7.12(B) **ELA TEKS:** 7.10(B), 2019 ELA TEKS: 7.5(C) **Reading Levels**: 1 **True Foodies!:** The process of digestion in the human body, and how to eat the right food to be a true foodie. **Science TEKS:** 7.12(B) **ELA TEKS:** 7.10, 2019, ELA TEKS: 7.5(F) **Reading Levels**: 2
STAARSmart Tests	Unit Tests: 7.12 B – Human Body Systems

Unit 3 : Cells to Organisms 7.12 C

Science Concepts TEKS 7.12 C	
Instruction Module	**Structural Hierarchy - Cell to Organisms**: In this Instruction Module, students learn about the levels of organization in multicellular organisms. They examine a tree and the human body to learn that the structural hierarchy in multicellular organisms, from the smallest to largest unit, is cells, tissues, organs, organ systems, and organisms.
IM Companion	**Structural Hierarchy - Cell to Organisms**
Instruction Module	**Plant and Animal Tissues:** In this Instruction Module, students learn about the tissues found in plants and animals. They compare the structures and functions of the four types of animal tissues: connective, muscle, epithelial and nervous tissues. They also compare the structures and functions of the three types of plant tissue: dermal, ground and vascular tissues.
IM Companion	**Plant and Animal Tissues**
Student Review	**Structural Hierarchy - Cell to Organisms**: Students assess and review their understanding of structural hierarchy in plants and animals including cells, tissues, organs, organ systems, and organisms.
Interactivity/ Simulation	**Levels of Structural Organization:** In this interactivity, students will recognize the levels of structural organization in plants and animals and arrange the levels according to their complexity. They will also sort different plant and animal structures according to their appropriate organizational level.
WordExplorer	Cells to Organisms

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Quiz	The questions in the assessment section test the student's understanding of the following concepts: Complexity of organisms based on the specialization of cells, levels of organization including cells, tissues, organs, and organ systems and the functions of each of these.
Journals	Journal 1 – *TEKS 7.2C, E; 7.12C* Journal 2 – *TEKS 7.2C, D, E; 7.12C*
Activity	Levels of Organization of Living Things – *TEKS 7.2E; 7.12C*
STAARSmart Tests	Unit Tests: 7.12 C – Cells to Organisms

Unit 4 : Plant vs Animal Cell 7.12 D, E, F

Science Concepts TEKS 7.12 D, E, F	
Instruction Module	**Plant vs. Animal Cell**: In this Instruction Module, students learn that plant and animal cells are both eukaryotic cells. They compare and contrast the structures in animal and plant cells and gain an understanding about the function of each structure.
IM Companion	**Plant vs. Animal Cell**
Student Review	**Plant vs Animal Cell:** Students assess and review their understanding of the differences between the organelles and their functions of plant and animal cells.
Interactivity/ Simulation	**Cell! Cell! Organelle!:** In this Interactivity, students "build" a plant cell and an animal cell by dragging and dropping the correct organelles to the appropriate cell.
WordExplorer	Plant vs. Animal Cell
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Eukaryotic and prokaryotic cells, differences between plant and animal cells, importance of the cell wall in plants and the cell theory.
Journals	Journal 1 – TEKS 7.2C, E; 7.12 D, E Journal 2 – TEKS 7.2C, 7.12 E, F

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Activity	Observing Paramecia (Descriptive Investigation) – TEKS 7.1A, B; 7.2A, C, D, E; 7.4A; 7.12E Comparing Plant and Animal Cells' Organelles – TEKS 7.2D, E; 7.12D Light, Photosynthesis and the Production of Oxygen (Experimental Investigation) – TEKS 7.1A, B; 7.2B, C, D, E; 7.3A 7.4A, B; 7.12D, E, F Describing Chloroplasts in Elodea Cells (Descriptive Investigation) – TEKS 7.1A, B; 7.2A, C, D, E; 7.3A 7.4A, B; 7.12D
STAARSmart Tests	Unit Tests: 7.12 D, E, F – Plant vs Animal Cell

Organisms and Environments 7.13

Unit 1 : Stimulus and Response 7.13 A, B

Science Concepts TEKS 7.13 A, B	
Instruction Module	**Stimulus**: In this Instruction Module, students learn that a stimulus is something that causes a reaction in an organism. They learn that stimuli can be internal or external and understand how to differentiate between the two. They also learn how stimuli help organisms maintain balance in body functions.
IM Companion	**Stimulus**
Instruction Module	**Response:** In this Instruction Module, students learn that a response is a reaction to a stimulus. They are introduced to different kinds of responses such as phototropism, geotropism, wilting, and fight or flight responses.
IM Companion	**Response**
Student Review	**Stimulus and Response:** Students assess and review their understanding of how organisms respond to external and internal stimuli.
Interactivity/ Simulation	**Pair'em Up! :** In this Interactivity, students observe how an organism responds to a stimulus and identify whether the stimulus is internal or external and also whether the response is learned or instinctive.

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WordExplorer	Stimulus and Response
Quiz	The questions in the assessment section test the student's understanding of the following concepts: The different kinds of stimuli and responses, phototropism, homeostasis.
Journals	Journal – TEKS 7.13 A, B
STAARSmart Tests	Unit Tests: 7. 13 A, B – Stimulus and Response

Organisms and Environments 7.14

Unit 1 : Heredity and Genes 7.14 A, C

Science Concepts TEKS 7.14 A, C	
Instruction Module	**Genes and Heredity**: In this Instruction Module, students learn that heredity is the passing on of traits from parents to offspring. They recognize that genes located in the nucleus of cells are the structures responsible for the specific traits organisms inherit.
IM Companion	**Genes and Heredity**
Student Review	**Genes and Heredity:** Students assess and review their understanding of what genes are, where they are found, and how they are responsible for passing on traits from generation to generation.
Interactivity/ Simulation	**Packaging Fun:** In this Interactivity, students place labeled boxes one inside the other in the correct order to represent the location of genes within a cell.
WordExplorer	Heredity and Genes
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Different types of asexual reproduction, its occurrence in various organisms and sexual reproduction.
Journals	Journal 1 – TEKS 7.2E; 7.14A Journal 2 – TEKS 7.14C
Activity	Heredity and Genes – TEKS 7.2C; 7.14C
STAARSmart Tests	Unit Tests: 7. 14 A, C – Genes and Heredity

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Unit 2: Types of Reproduction 7.14 B	
Science Concepts TEKS 7.14 B	
Instruction Module	**Asexual Reproduction**: In this Instruction Module, students learn that asexual reproduction involves only one parent and that the offspring produced are genetically identical to their parent. They also learn how some organisms reproduce asexually through binary fission, spores, vegetative propagation, budding and fragmentation.
IM Companion	**Asexual Reproduction**
Instruction Module	**Sexual Reproduction:** In this Instruction Module, students learn that sexual reproduction requires two parents and that the offspring produced show some resemblance to both parents. They also learn about some methods of sexual reproduction such as conjugation and fertilization.
IM Companion	**Sexual Reproduction**
Student Review	**Asexual Reproduction:** Students assess and review their understanding of why offspring produced in asexual reproduction, which includes fragmentation, budding, binary fission and vegetative propagation, are genetically identical to each other and to their parent.
Student Review	**Sexual Reproduction:** Students assess and review their understanding of why sexual reproduction, which includes conjugation and fertilization, requires two parents and that the offspring produced by sexual reproduction are genetically diverse from their parents and each other.
Interactivity/ Simulation	**Whose Parent is that Anyway?:** In this Interactivity, students differentiate between sexual and asexual reproduction, classify asexual reproduction as binary fission, budding, fragmentation, regeneration, spore formation and vegetative reproduction. They recognize the advantages and disadvantages of sexual and asexual reproduction.
WordExplorer	Types of Reproduction
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Location of genes and chromosomes, number of chromosomes, heredity and acquisition of genes from both parents.

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Journals	Journal – TEKS 7.14B
Activity	Types of Reproduction – *TEKS 7.2C, E; 7.14B*
STAARSmart Tests	**Unit Tests: 7. 14 B – Types of Reproduction**

Grade 8 Course Description

Scientific Investigation and Reasoning Skills

Unit 1: Safety and Scientific Investigations 8.1A, 1B, 2A, 2B, 2C, 2D, 2E, 3A, 3B, 3C, 3D, 4A, 4B

Scientific Investigation and Reasoning TEKS: *Grades 6-8 1A, B; 2A, B, C, D, E; 3A, B, C, D; 4A, 4B*

Instruction Module	**Safety and Scientific Investigation:** In this Instruction Module, students learn how to plan and implement descriptive, comparative, and experimental investigations. They learn to ask well-defined questions, formulate testable hypotheses, collect, record, and analyze data, construct tables and graphs, communicate valid conclusions and predict trends. They also review safe practices and safety equipment needed when doing scientific investigations.
IM Companion	**Safety and Scientific Investigation**
WordExplorer	Safety and Scientific Investigation
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Similarities and differences between the three types of scientific investigations: Comparative, descriptive, and experimental; independent and dependent variables, and use of safety equipment such as eyewash, fire blankets, safety goggles, gloves, and aprons.

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Journals	Journal – Safe Practices and Safety Equipment – TEKS 8.1A
Activity	Move it! Move it! - Molecules in Motion – TEKS 6.1A, B; 6.2B, C, D, E; 6.4A, B; 7.1A, B; 7.2A, C, D, E; 7.4A, B; 8.1A, B; 8.2A, C, D, E; 8.4A, B Lab Safety Symbols – TEKS 8.1A
Readers	**The Grand Canyon, A Window to Earth's History:** A brief introduction to the history of geology, and the application of its theories and laws while studying the Grand Canyon for clues to the formation of Earth. **Science TEKS:** 8.3(D) **Reading Levels**: 2
	Beyond Visible –The New Photovoltaic Technologies: A glimpse of the early days of the photovoltaic cell, its advantages and disadvantages, and the direction it is taking. **Science TEKS:** 8.3(D) **Reading Levels**: 2
	What Goes Up: Sir Isaac Newton's Law of Universal Gravitation, and how his ideas influenced the advancements in current space technology. **Science TEKS:** 8.3 (D) **Reading Levels**: 2
	Theories and Laws: Clearing the misconceptions surrounding theories and laws, and they are used by the scientific community. **Science TEKS:** 8.3(A) **ELA TEKS:** 7.5(F), 7.8(D)i **Reading Levels**: 1

Reporting Category 1: Matter and Energy

Unit 1 : Structure of the Atom - 8.5 A, B

Science Concepts TEKS 8.5 A, B

Instruction Module	**Atoms**: In this Instruction Module, students are introduced to the structure of an atom. They learn about protons, neutrons, electrons, the electron cloud, and electrical charges. They also understand the significance of an atom's atomic number and mass number.
IM Companion	**Atoms**

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Instruction Module	**Valence Electrons and Reactivity:** In this Instruction Module, students learn how the configuration of electrons in an atom determines the atom's reactivity with other elements. They learn about electron shells and valence shells, and understand what is meant by a full electron shell.
IM Companion	**Valence Electrons and Reactivity**
Student Review	**Atoms:** Students assess and review their understanding of the masses, electrical charges, and locations of protons, neutrons, and electrons in atoms.
Student Review	**Valence Electrons and Reactivity:** Students assess and review their understanding of protons in determining an element's identity and of valence electrons in determining an element's reactivity and chemical properties.
WordExplorer	Structure of the Atom
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Atomic number, net electrical charge on an atom, force between charged particles, mass number, electron cloud, valence electrons, stable and reactive elements.
Journals	Journal 1 – TEKS 8.2E; 8.3B; 8.5A Journal 2 – TEKS 8.2C, E; 8.5B
Activity	Protons and Electrons – TEKS 8.3B; 8.5B Structure of the Atom – TEKS 8.2D; 8.3B; 8.5A
Readers	**Rutherford's Big Surprise:** A comparison of J. J. Thompson's and Rutherford's models of the atom, and what lead to Rutherford's conclusions of the structure of the atom. **Science TEKS:** 8.5(A) **Reading Levels**: 1 **Welcome to the Nuclear Navy:** he structure of radioactive atoms, and how and why the navy uses nuclear energy to power their carriers and submarines. **Science TEKS:** 8.5(A) **Reading Levels**: 1 **Static Electricity on a Grand Scale:** What exactly lighting is, when it occurs, and why it is so dangerous. **Science TEKS:** 8.5(F) **Reading Levels**: 2

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STAARSmart Tests	**Unit Tests: 8.5 A, B – Structure of the Atom**

Unit 2 : The Periodic Table - 8.5 C

Science Concepts TEKS 8.5 C	
Instruction Module	**The Periodic Table**: In this Instruction Module, students are introduced to the periodic table. They learn how elements are organized in the periodic table based on their properties. They also recognize that elements in the same group and period have in common properties.
IM Companion	**The Periodic Table**
Student Review	**The Periodic Table:** Students assess and review their understanding of the arrangement of the elements based on their properties into groups and periods in the Periodic Table.
Interactivity/ Simulation	**Lost and Found:** In this Interactivity, students identify the position of an element on the Periodic Table based on its atomic structure. The student also has to recognize whether an element is a metal, a nonmetal, or a metalloid based on its properties.
WordExplorer	The Periodic Table
Quiz	The questions in the assessment section test the student's understanding of the following concepts: The position of elements on the Periodic Table including periods and groups, recognizing elements based on its atomic structure, its position on the periodic table, and its physical / chemical properties.
Journals	Journal 1 – TEKS 8.2C, E; 8.5C Journal 2 – TEKS 8.5C
Activity	The Periodic Table – TEKS 8.2D; 8.5C
Readers	**A Method to the Madness: The Periodic Table:** The description of the periodic table arranged according to Dmitri Mendeleev. **Science TEKS:** 8.5(C) **Reading Levels**: 2

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STAARSmart Tests	**Unit Tests: 8.5 C – The Periodic Table**

Unit 3 : Chemical Reactions and Equations - 8.5 D, E

Science Concepts TEKS 8.5 (D, E)	
Instruction Module	**Chemical Symbols and Formulas**: In this Instruction Module, students learn that matter in the form of elements or compounds form substances. They recognize that substances are represented by chemical symbols or chemical formulas. They also learn that a chemical formula conveys the number of atoms of each element that combine to make the compound.
IM Companion	**Chemical Symbols and Formulas**
Instruction Module	**Chemical Reactions and Equations:** In this Instruction Module, students learn that chemical reactions result in the formation of new substances. They recognize evidence that suggests a chemical reaction has occurred. They learn how to write chemical equations to represent chemical reactions. They also understand that chemical equations need to be balanced so that the Law of Conservation of Mass holds true.
IM Companion	**Chemical Reactions and Equations**
Student Review	**Chemical Symbols and Formulas:** Students assess and review their understanding of how to determine the number of atoms of each element in a substance using the chemical formula.
Student Review	**Chemical Reactions and Equations:** Students assess and review their understanding of the evidence that indicate new substances formed in a chemical reaction and how to balance chemical equations that represent chemical reactions.
WordExplorer	Chemical Reactions and Equations
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Chemical reactions, chemical formula, law of conservation of mass, balancing chemical reactions.
Journals	Journal 1 – TEKS 8.3A; 8.5E Journal 2 – TEKS 8.2C, E; 8.5D;

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Activity	Chemical Reactions and the Law of Conservation of Mass, Part 1 (Experimental Investigation) – TEKS 8.1A, B; 8.2B, C, D, E; 8.3A; 8.4A, B; 8.5E Chemical Reactions and the Law of Conservation of Mass, Part 2 (Experimental Investigation) – TEKS 8.1A, B; 8.2B, C, D, E; 8.4A, B; 8.5D, E Chemical Reaction (Experimental Investigation) - TEKS 8.1A, B; 8.2B, C, D, E; 8.4A, B; 8.5E Is it a Chemical Reaction? (Descriptive Investigation) - TEKS 8.1A, B; 8.2B, C, D, E; 8.3A; 8.4A, B; 8.5E
STAARSmart Tests	**Unit Tests: 8.5 D, E – Chemical Symbols and Formulas**

Unit 4 : Energy Flow in Ecosystems 7.5 B

Science Concepts TEKS : 7.5 B	
Instruction Module	**The Food Chain**: In this Instruction Module, students learn how organisms are interconnected to each other based on who eats what and how these relationships are represented using a food chain. They begin to recognize how energy flows through a food chain from producers to consumers and gain an understanding of how decomposers return materials to the soil.
IM Companion	**The Food Chain**
Instruction Module	**Ecosystems–Energy Flow:** In this Instruction Module, students learn that flow of energy in a food chain can be represented using an energy pyramid with the producers at the base and the tertiary carnivores at the top. They are introduced to the idea that overlapping food chains interconnect to form food webs that are more complex compared to food chains.
IM Companion	**Ecosystems–Energy Flow**
Student Review	**The Food Chain:** Students assess and review their understanding of food chains that show the linear relationship of some organisms in an ecosystem that depend on each other for food and energy.

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Student Review	**Ecosystems–Energy Flow:** Students assess and review their understanding of food webs, which show how organisms are dependent on each other for food, and energy pyramids, which represent how much energy is transferred to each level of consumers beginning with producers at the base.
Interactivity/ Simulation	**Build the Food Chain!!:** In this Interactivity students create a viable food chain in order for energy to flow to the top predator and predict the amount of energy available at a particular trophic level.
WordExplorer	Energy Flow in Ecosystems
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Food chains, food webs, energy pyramids, biomass.
Journals	TEKS 7.2C, D, E; 7.5B
Activities	Flow of Energy in Ecosystems - TEKS 7.2C, D, E; 7.3B; 7.4A; 7.5B
STAARSmart Tests	Unit Tests: 7.5 B – Energy Flow in Ecosystems

Unit 5 : Digestion - Physical and Chemical Changes 7.6 A

Science Concepts TEKS 7.6 A	
Instruction Module	**Nutrients and Digestion**: In this Instruction Module, students learn that carbohydrates, lipids and proteins are nutrients required by our bodies. They learn how these nutrients are physically and chemical broken down during the process of digestion and absorbed into the bloodstream.
IM Companion	**Nutrients and Digestion**
Student Review	**Nutrients and Digestion:** Students assess and review their understanding of how carbohydrates are broken down into simpler sugars through physical and chemical processes in our bodies during digestion.
WordExplorer	Organic Compounds and the Living World
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Structures of organic compounds and the physical and chemical changes occurring at each stage of digestion.

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Journals	Journal 1 – TEKS 7.2E Journal 2 – TEKS 7.2E Journal 3 – TEKS 7.4B
Activities	Food in the Body – TEKS 7.2C, D, E; 7.3B; 7.4A; Identifying Organic and Inorganic Compounds – TEKS 7.2C, E; 7.3B; 7.4A; 7.6A Science Safety Scenario – TEKS 7.1A, B; 7.4B
STAARSmart Tests	Unit Tests: 7.6 A – Physical and Chemical Changes

Unit 6 : Metals and Nonmetals 6.6 A,B

Science Concepts TEKS : 6.6 A, B	
Instruction Module	**Properties of Metals**: In this Instruction Module, students are introduced to the properties of metals and recognize that metals have a shiny luster, are malleable and ductile, and are mostly good conductors of heat and electricity. They also learn how these properties make metals useful in in everyday life.
IM Companion	**Properties of Metals**
Instruction Module	**Comparing Metals and Nonmetals:** In this Instruction Module, students observe and compare some physical properties of metals and nonmetals including ability to conduct heat and electricity, luster, malleability, and ductility. They are also introduced to the placement of metals and nonmetals on the periodic table.
IM Companion	**Comparing Metals and Nonmetals**
Instruction Module	**Properties of Metalloids:** In this Instruction Module, students observe the properties of metalloids and recognize that they have properties of both metals and nonmetals. They learn that metalloids occupy the space between the metals and nonmetals on the periodic table. They also learn some uses of metalloids in everyday life.

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IM Companion	Properties of Metalloids
Instruction Module	**Calculating Density:** In this Instruction Module, students learn that density is a physical property that can be used to identify elements. They learn how to calculate density. They also recognize that mass can be measured with a triple beam balance and that the volume of an irregular shaped object can be measured using displacement.
IM Companion	**Calculating Density**
Student Review	**Comparing Metals and Nonmetals:** Students assess and review their understanding of the physical properties of metals and nonmetals, such as luster, conductivity of heat and electrical energy, and malleability.
Student Review	**Properties of Metalloids:** Students assess and review their understanding of the physical properties of metalloids, such as luster, conductivity of heat and electrical energy, and malleability, and where they appear on the periodic table.
Student Review	**Calculating Density:** Students assess and review their understanding of how density is calculated and used to identify a substance.
Interactivity/ Simulation	**Test Your Metal**: In this Interactivity, students observe the physical properties of elements and classify them as metal, nonmetal, or metalloid. Then, given the mass and volume of the sample, they identify it by calculating its density and comparing the value with a density chart.
WordExplorer	Metals and Nonmetals
Quiz	The questions in the assessment section test the student's understanding of the following concepts: the physical properties of metals, nonmetals, and metalloids, exceptions to the above categories, and identifying substances based on density.
Journals	Journal – TEKS 6.2C, E; 6.6A
Activities	Calculating Density to Identify Substances – TEKS 6.2C, E; 6.3A; 6.4A; 6.6B
Readers	**Atoms, Elements, Compound and Mixtures:** What atoms are and the role they play in understanding elements and compounds. **Science TEKS:** 6.5 (A), 6.6 (A) **ELA TEKS:** 6.10(A), 2019 ELA TEKS: 6.6(D)

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Reading Levels: 1

STAARSmart Tests	**Unit Tests: 6.6 (A) (B) - Metals and Nonmetals**

Reporting Category 2: Force, Motion, and Energy

Unit 1 : Force and Acceleration - 8.6 A, B, C

Science Concepts TEKS	**8.6 (A, B, C)**
Instruction Module	**Newton's First Law of Motion**: In this Instruction Module, students are introduced to Newton's first law of motion. They learn how to calculate average speed, and differentiate between speed and velocity. They also observe examples of how an unbalanced force can change the speed and direction of an object's motion.
IM Companion	**Newton's First Law of Motion**
Instruction Module	**Newton's Second Law of Motion:** In this Instruction Module, students are introduced to Newton's second law of motion. They observe examples to recognize that the acceleration of an object depends on the amount of force applied and the mass of the object.
IM Companion	**Newton's Second Law of Motion**
Instruction Module	**Newton's Third Law of Motion:** In this Instruction Module, students are introduced to Newton's third law of motion. They observe examples of how action and reaction forces work in equal and opposite directions.
IM Companion	**Newton's Third Law of Motion**
Instruction Module	**Bumper Cars and Newton's Laws:** In this Instruction Module, students observe the motion of bumper cars to review Newton's three laws of motion.
IM Companion	**Bumper Cars and Newton's Laws**

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Student Review	**Newton's First Law of Motion:** Students assess and review their understanding of the differences between speed and velocity, and the application of Newton's law of inertia using seat belts as an example.
Student Review	**Newton's Second Law of Motion:** Students assess and review their understanding of the application of Newton's law of force and acceleration on sports activities, such as sledding.
Student Review	**Newton's Third Law of Motion:** Students assess and review their understanding of the application of Newton's law of action–reaction using rowing of a boat and the launch of a rocket as examples.
Interactivity/ Simulation	**Splat!:** In the Simulation, students "use" air pumps to apply varying amounts of force and observe the effect on a constant mass. Then they use a constant force on varying masses and observe the effects. They record their observations and arrive at a conclusion.
WordExplorer	Force and Acceleration
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Distance, speed, balanced and unbalanced forces, mass, acceleration, velocity, magnitude and direction of forces, and Newton's Laws of Motion.
Journals	Journal 1 – TEKS 8.2C, E; 8.6A, B Journal 2 – TEKS 8.2D; 8.6B
Activity	Investigate and Describe Applications of Newton's Law (Experimental Investigation) – TEKS 8.2B, C, D, E; 8.4A; 8.6A, B, C Speed, Velocity and Acceleration (Experimental Investigation and STEM) - TEKS 8.1A, B; 8.2B, C, D, E; 8.3A; 8.4A,; 6.8C; 8.6B Investigating and Describing Applications of the Law of Action-Reaction (Descriptive Investigation) - TEKS 8.1A, B; 8.2B, C, D, E; 8.4A, B; 8.6C Balanced and Unbalanced Forces – TEKS 8.2C, D, E; 8.4A; 8.6A Investigating and Describing Applications of Inertia – TEKS 8.6C
Readers	**Inertia:** An explanation of the concept of inertia in context of launching and landing of a space shuttle. **Science TEKS:** 8.6(C) **ELA TEKS:** 8.10(A), 2019 ELA TEKS: 8.6(D **Reading Levels**: 2

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STAARSmart Tests **Unit Tests: 8.6 A, B, C - Force and Acceleration**

Unit 2 : Potential and Kinetic Energy 6.8 A

Science Concepts TEKS : 6.8 A	
Instruction Module	**Kinetic Energy**: In this Instruction Module, students observe and learn that kinetic energy is the energy an object possesses because of its motion. They also learn that kinetic energy depends on the mass and speed of an object.
IM Companion	**Kinetic Energy**
Instruction Module	**Potential Energy:** In this Instruction Module, students learn that potential energy is the energy stored in objects because of their position. They recognize that the potential energy of an object depends on its mass and position. They also observe examples of how potential energy is changed into kinetic energy.
IM Companion	**Potential Energy**
Instruction Module	**Mechanical Energy Transformations:** In this Instruction Module, students observe a pendulum to gain an understanding of how mechanical energy continuously changes back and forth between potential and kinetic energy. They are also introduced to the Law of Conservation of Energy, recognizing that energy is neither created nor destroyed but only changes forms.
IM Companion	**Mechanical Energy Transformations**
Student Review	**Kinetic Energy:** Students assess and review their understanding of what kinetic energy of a moving object is and what it depends on.
Student Review	**Potential Energy:** Students assess and review their understanding of potential energy and the factors that affect it, such as mass and the height to which an object is raised.

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Student Review	**Mechanical Energy Transformations:** Students assess and review their understanding of the energy transformations between potential and kinetic energy through an oscillating pendulum.
Interactivity/ Simulation	**Is it Potential or Kinetic?**: In this Interactivity, students observe the movement of objects and identify the correct amounts of potential and kinetic energy at different positions of the objects. **Design the Ride:** In this simulation section, students change the height of the hills of a roller coaster and observe the effect on the movement of the roller coaster car. They record their observations, analyze the data, and arrive at a conclusion. This helps them to understand the energy conversions that take place in a roller coaster ride.
WordExplorer	Potential and Kinetic Energy
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Potential energy, kinetic energy, factors affecting potential and kinetic energy, and energy transformations.
Journals	Journal – TEKS 6.2C, E; 6.8A
Activities	Potential and Kinetic Energy (Experimental Investigation) – TEKS 6.1A, B; 6.2B, C, D, E; 6.3B; 6.4A, B
Readers	**Pumped Storage Reservoirs:** What pumped storage reservoirs are, how some of the well-known ones were constructed, and some of their advantages and disadvantages. **Science TEKS:** 6.7(A), 6.8(A) **Reading Levels**: 1
STAARSmart Tests	**Unit Tests: 6.8 (A) - Potential and Kinetic Energy**

Unit 3 : Force and Motion 6.8 B, C, D

Science Concepts TEKS : 6.8 B, C, D	
Instruction Module	**Effect of Force on Motion**: In this Instruction Module, students learn the pushes and pulls are called forces. They observe examples of how unbalanced forces, including gravity and friction, can change the position, direction and speed of an object.
IM Companion	**Effect of Force on Motion**

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Instruction Module	**Measuring Distance and Speed:** In this Instruction Module, students observe and recognize that motion is relative to a particular point. They learn to calculate the average speed of an object by dividing distance by time and express it using the correct units of measurement. They also learn that the motion of an object can be depicted on a distance - time graph.
IM Companion	**Measuring Distance and Speed**
Student Review	**Effect of Force on Motion:** Students assess and review their understanding of how unbalanced forces change the position, direction, and speed of a moving object.
Student Review	**Measuring Distance and Speed:** Students assess and review their understanding of the calculation of average speed using distance and time, and how the motion of a moving object is depicted on a graph.
WordExplorer	Force and Motion
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Distance, displacement, average speed, balanced and unbalanced forces, magnitude and direction of forces, and interpreting a displacement-time graph.
Journals	Journal 1- TEKS 6.2E; 6.8B Journal 2 – TEKS 6.2C, E; 6.8C
Activities	Unbalanced Forces (Experimental Investigation) – TEKS 6.1A, B; 6.2B, C, D, E; 6.3A; 6.4A, B;6.8B Representing Changes in Motion Graphically (STEM Investigation) – TEKS 6.2A, C, D, E; 6.4A; 6.8B, C, D
Readers	**Eddie the Eagle: A Battle with Forces:** A look into the science that affects a sport, in this case in ski jumping, and how sportspersons take advantage of the factors to get the edge. **Science TEKS:** 6.8 (B) **ELA TEKS:** 4.3(B), 4.6(F, G, H, I), 4.10(A) **Reading Levels**: 1 **Need for Speed:** A brief informative piece on the definition of speed and the attempts of famous car racers who tried to break the land speed records. **Science TEKS:** 6.8 (C) **Reading Levels**: 2

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	Speed and Direction: How Science and Math help sailors navigate their way on the oceans, and some of the tools used to keep track of speed and direction on the wide waters. **Science TEKS:** 6.8(C), 6.4(A) **Reading Levels**: 2 **Describing motion:** A review of the concepts of distance, time, speed, and direction. **Science TEKS:** 6.8 (B) **ELA TEKS:** 6.10(D), 2019 ELA TEKS: 6.8(H) **Reading Levels**: 1 **Balanced and Unbalanced Forces:** An explanation of balanced and unbalanced forces in context of acceleration and motion. **Science TEKS:** 6.8 (B) **ELA TEKS:** 6.10(D), 2019 ELA TEKS: 6.5(H) **Reading Levels**: 2 **Speed and Motion:** Michelle and her friends go biking and observe the science of speed and motion along the way. **Science TEKS:** 6.8 (B) (C) **ELA TEKS:** 6.10(D), 2019 ELA TEKS: 6.5 (H) **Reading Levels**: 1
STAARSmart Tests	**Unit Tests: 6.8 (B) (C) (D) - Force and Motion**

Unit 4: Energy Transformations 6.9 C

Science Concepts TEKS : 6.9 C	
Instruction Module	**Energy Transformations**: In this Instruction Module, students observe examples of common energy transformations that take place in their everyday lives. Through these examples, they learn about the Law of Conservation of Energy, recognizing that energy is neither created nor destroyed but only changes forms.
IM Companion	**Energy Transformations**
Instruction Module	**Generating Electrical Energy:** In this Instruction Module, students learn how chemical energy, solar energy, nuclear energy and hydropower is transformed to generate electrical energy. They observe how power plants and solar cells function to make these transformations.
IM Companion	**Generating Electrical Energy**
Instruction Module	**Transformation of Chemical Energy:** In this Instruction Module, students learn that chemical energy is the energy stored in the bonds that hold together the atoms and molecules of a substance. They observe examples of how chemical energy is transformed into other

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	forms of energy we use every day, such as transformations of chemical energy in food to kinetic and potential energy, chemical energy in batteries to light energy, and chemical energy in fossil fuels to electrical energy.
IM Companion	**Transformation of Chemical Energy**
Student Review	**Energy Transformations:** Students assess and review their understanding of energy transformations, such as chemical energy in a flashlight battery changing to electrical energy and then to light energy.
Interactivity/ Simulation	**Identify My Change:** In this interactive section of the module, students are presented with various examples of energy transformations and they identify the correct sequence of energy transformations taking place.
WordExplorer	Energy Transformations
Quiz	The questions in the assessment section test the student's understanding and ability to recognize the energy transformations that occur in various situations such as motor vehicles, electrical appliances, photosynthesis, glow sticks, video games, greenhouses, and fossil fuel plants.
Journals	Journal – TEKS 6.2E; 6.9C
Activities	Energy Transformations - Project - TEKS 6.1A, B; 6.2B, C, D, E; 6.3B; 6.4A, B; 6.9C Energy Transformation – STEM – TEKS 6.1A, B; 6.2B, C, D, E; 6.3B; 6.4A, B; 6.9C
Readers	**Wind Farms:** All things wind turbine: What they are, how they work, where they are installed, why we need more of them, and some of their disadvantages. **Science TEKS:** 6.7(A), 6.9(C) **ELA TEKS:** 6.5(F,G), 6.8(D) i, ii, iii **Reading Levels**: 2
	Lighting Now and Then: An explanation of how electricity is produced, alternating and direct currents, and their uses in a small narrative about Ginny and her stay at her grandmother's house. **Science TEKS:** 6.9(C) **Reading Levels**: 2
	Supersonic Flight: The effects, such as sonic booms and shock waves, experienced when a plane approaches Mach 1, or the speed of sound, and how they led to the decline of the Concorde. **Science TEKS:** 6.9(C) **ELA TEKS:** 8.6(C), 8.6(D), 8.8(D) **Reading Levels**: 1

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	Energy Transfer: Transfer of the different kinds of energy against the backdrop of a music concert. **Science TEKS:** 6.7(A), 6.9(C) **ELA TEKS:** 6.10(D), 2019 ELA TEKS: 6.5(H) **Reading Levels**: 1
STAARSmart Tests	**Unit Tests: 6.9 C - Energy Transformations**

Reporting Category 3: Earth and Space

Unit 1 : Sun, Moon, and Earth - 8.7 A, B, C

Science Concepts TEKS	**8.7 A, B, C**
Instruction Module	**Earth's Rotation and Revolution**: In this Instruction Module, students learn that Earth's rotation on its axis causes the day and night cycle and the apparent movement of the Sun across the sky. They also observe a model that demonstrates how Earth's revolution around the Sun and the tilt of its axis causes the changes in seasons.
IM Companion	**Earth's Rotation and Revolution**
Instruction Module	**The Lunar Cycle:** In this Instruction Module, students are introduced to the lunar cycle. They observe how the phases of the Moon are a result of the relative positions of the Sun, Moon, and Earth. They also understand that only parts of the Moon's lit up surface are visible from Earth, resulting in the apparent waxing and waning of the Moon.
IM Companion	**The Lunar Cycle**
Instruction Module	**Tides:** In this Instruction Module, students learn that the Moon's gravitational pull on Earth's results in ocean tides. They observe why Earth experiences two high tides and two low tides during a day, and how the combined effect of the gravitational pull of the Sun and the Moon result in spring tides and neap tides.
Student Review	**Earth's Rotation and Revolution:** Students assess and review their understanding of how Earth's rotation and revolution on its tilted axis causes the day–night cycle and the seasons.
Student Review	**The Lunar Cycle:** Students assess and review their understanding of the sequence of events that occur during a lunar cycle.

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Student Review	**Tides:** Students assess and review their understanding of how the positions of the Sun and Moon in relation to Earth affect ocean tides.
Interactivity/ Simulation	**Phases and Tides:** In this Interactivity, students identify the phase of the moon given only the relative position of Sun, Moon, and Earth. Then they have to select the positions on earth that have high and low tide for that phase of the moon.
WordExplorer	The Sun, Moon, and Earth
Quiz	The questions in the assessment section test the student's understanding of the following concepts: What causes day and night, the tilt of Earth's axis, seasons in both hemispheres, the phases of the moon, and the tides.
Journals	Journal 1 – TEKS 8.7A Journal 2 – TEKS 8.7C
Activity	Modeling What Causes Day and Night (Descriptive Investigation) – TEKS 8.1A; 8.2A, C, D, E; 8.3 B, C; 8.4A; 8.7A Modeling What Causes the Seasons - (Descriptive Investigation) – TEKS 8.1A; 8.2A, C, D, E; 8.3 B, C; 8.4A; 8.7A Describing the Lunar Cycle - TEKS 8.1B; 8.2A, C, D, E; 8.3 B, C; 8.4A; 8.7B
Readers	**Our Necessary Moon:** Some ideas of how the Moon may have formed, and how its presence influenced and continues to influence life on Earth. **Science TEKS:** 8.7(C) **Reading Levels**: 2
STAARSmart Tests	**Unit Tests: 8.7 A, B, C - Sun, Moon, and Earth**

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Unit 2 : The Universe - 8.8 A, B	
Science Concepts TEKS	**8.8 A, B**
Instruction Module	**Stars: Color and Luminosity**: In this Instruction Module, students are introduced to stars and their characteristics. They learn that the temperature of a star can be determined by its color. They also learn that a star's luminosity depends on its distance from Earth, its size, and the amount of energy it emits.
IM Companion	**Stars: Color and Luminosity**
Instruction Module	**Stars and the H-R Diagram:** In this Instruction Module, students learn about the life cycle of stars. They also learn how temperature and luminosity are used to classify stars during their life cycle on the Hertzsprung-Russel diagram.
IM Companion	**Stars and the H-R Diagram**
Instruction Module	**Galaxies:** In this Instruction Module, students learn about the characteristics of galaxies and how they are classified according to shape. They also recognize that our solar system is near the edge of the Milky Way galaxy.
IM Companion	**Galaxies**
Student Review	**Stars—Color and Luminosity:** Students assess and review their understanding of the components of the universe, such as stars, and that the Sun is the closest star to Earth.
Student Review	**Stars and the H-R Diagram:** Students assess and review their understanding of the Hertzsprung-Russel Diagram that classifies stars based on their temperature and luminosity.
Student Review	**Galaxies:** Students assess and review their understanding of the composition, shapes, and changing nature of galaxies.
Interactivity/ Simulation	**Home for the Stars:** In this Interactivity, students increase or decrease the temperature of a star based on its location on the H-R Diagram. Then, they classify the star based on its luminosity and temperature.
WordExplorer	The Universe
Quiz	The questions in the assessment section test the student's understanding of the following concepts:

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	Components of the universe, Herztsprung-Russell diagram, life cycle of a star, luminosity and temperature of a star.
Journals	Journal 1 – TEKS 8.2C, E; 8.3B; 8.8A Journal 2 – TEKS 8.2 C, E; 8.3B; 8.8A, B
Activity	Plotting the Stars – TEKS 8.2D; 8.3B; 8.8A
Readers	**A Star for Mom's Birthday:** A second person narrative of how you use some properties of a star to select one as a 'gift' for mom. **Science TEKS:** 8.8(A) **Reading Levels**: 2
	Solar System, Galaxies, and the Universe: A brief description of the solar system, its components, and theories about its origin. **Science TEKS:** 8.8 (A) **ELA TEKS:** 8.10(A), 2019 ELA TEKS: 8.8(D)i **Reading Levels**: 2
	Our Galaxy: A brief introduction to our galaxy, the Milky Way, and what we know and don't know about it. **Science TEKS:** 8.8(A) **ELA TEKS:** 8.10(C), 2019 ELA TEKS: 8.5(E) **Reading Levels**: 2
STAARSmart Tests	Unit Tests: 8.8 A, B – The Universe

Unit 3: Using Light to Study the Universe - 8.8 C

Science Concepts TEKS	**8.8 C**
Instruction Module	**Using Light to Study the Universe:** In this Instruction Module, students learn how scientists analyze light and radio waves from the electromagnetic spectrum to gain information about the distance and composition of objects in the universe. They understand how scientists compare the absorption spectrums of stars to the emission spectrums of elements to understand the composition of stars.
IM Companion	**Using Light to Study the Universe**
Student Review	**Using Light to Study the Universe:** Students assess and review their understanding of how the different wavelengths of the electromagnetic spectrum, such as light and radio waves, are used to learn about distances and composition of objects in the universe.
Interactivity/ Simulation	**Star Light Star Bright:** In this Interactivity, students compare the absorption spectrum of stars and compare it with the emission spectrum of elements to analyze which element is present in the star.

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WordExplorer	Using Light to Study the Universe
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Light years, comparison of wavelengths of visible light and radio waves, absorption spectrums, comparison of absorption and emission spectrums.
Journals	Journal 1 – TEKS 8.2C, E; 8.3B; 8.8C Journal 2 – TEKS 8.2E;
Activity	Modeling Distances Using Light Years: Part 1 (Descriptive Investigation) – TEKS 8.2A, C, D, E; 8.3B, C; 8.4A; Modeling Distances Using Light Years: Part 2 (Descriptive Investigation) – TEKS 8.2A, C, D, E; 8.3B, C; 8.4A; Radio Astronomy – TEKS 8.2E; 8.8C Absorption and Emission Spectra – TEKS 8.1A, 8.1B; 8.2C, E; 8.4A, 8.4B; 8.8C Constructing a Model Hand-held Spectroscope (Descriptive Investigation) – TEKS 8.1A, B; 8.2A, B, C, D, E; 8.3C; 8.4A; 8.8C Modeling Sizes Using Light Years: Part 1 (Descriptive Investigation) – TEKS 8.1A, B; 8.2A, C, E; 8.3B, D; 8.4A, B; 8.8C Modeling Sizes Using Light Years: Part 2 (Descriptive Investigation) – TEKS 8.2C, E; 8.3B; 8.4A; 8.8C
STAARSmart Tests	Unit Tests: 8.8 C – Using Light to Study the Universe

Unit 4 : Origin of the Universe - Theories - 8.8 D

Science Concepts TEKS	**8.8 (D)**
Instruction Module	**Origin of the Universe – Theories**: In this Instruction Module, students understand how discoveries from cosmologists such as Edwin Hubble, Arno Penzias and Robert Wilson led to development of the Big Bang theory to explain the origin of the universe.
IM Companion	**Origin of the Universe – Theories**

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Student Review	**Origin of Universe—Theories:** Students assess and review their understanding of how scientific data, such as Doppler shifts of space objects, cosmic microwave background radiation, and the abundance of light elements, have led to the development of the Big Bang theory to explain the origin of the universe.
Interactivity/ Simulation	**Origin Of The Universe-Theories:** In this Interactivity, students observe "light waves" from an object in space and decide whether the object is stationary, moving away from, or moving towards the observer. They also recognize if the light is red shifted, blue shifted, or if there is no shift.
WordExplorer	Origin Of The Universe-Theories
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Studying data from a graph representing Hubble's law, wavelengths, red shift, blue shift, Doppler shift, cosmic microwave background radiation. Big Bang Theory.
Journals	Journal – TEKS 8.2E; 8.8D
Activity	Using Scientific Data as Evidence – TEKS 8.3A, B, C, D; 8.4A; 8.8D Theories that Attempt to Explain the Origin of the Universe (Research Project) – TEKS 8.3A, D; 8.8D
Readers	**How Did Our Solar System Form?:** How scientists formed the theory of the formation of the solar system using the planets' orbital motion as evidence. **Science TEKS:** 8.8(D) **ELA TEKS:** 8.10(A), 2019 ELA TEKS: 8.8(D)i **Reading Levels**: 2
STAARSmart Tests	Unit Tests: 8.8 D – Origin of the Universe - Theories

Unit 5 : Effects of Plate Tectonics - Theories - 8.9 A,B

Science Concepts TEKS	**8.9 (A, B)**
Instruction Module	**Theory of Plate Tectonics**: In this Instruction Module, students learn how the continental drift theory, the discovery of sea floor spreading, and observations that volcanoes and earthquakes occur most frequently at specific areas around the world led scientists to develop the plate tectonic theory.

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IM Companion	Theory of Plate Tectonics
Instruction Module	**Effects of Plate Tectonics:** In this Instruction Module, students learn that plate boundaries are classified as convergent, divergent, or transform boundaries based on their relative movement. They also recognize the different crustal features that each type of boundary can form.
IM Companion	Effects of Plate Tectonics
Student Review	**Theory of Plate Tectonics:** Students assess and review their understanding of how the Continental Drift theory, sea floor spreading, and occurrence of volcanoes and earthquakes at specific areas, led scientists to develop the Theory of Plate Tectonics.
Student Review	**Effects of Plate Tectonics:** Students assess and review their understanding of the classification of plate boundaries based on their relative movement and the crustal features formed at each.
Interactivity/ Simulation	**Flow of Lava:** In this simulation, students investigate to find out if the thickness of the lava affects its flow rate and the type of volcanic structure that is formed. They compare liquids of different thicknesses. They observe and record the time taken by each liquid to flow down a funnel. Based on the data, they arrive at a conclusion.
WordExplorer	Effects of Plate Tectonics
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Divergent, convergent, and transform boundaries, crustal features associated with each, evidences that support the Plate Tectonic theory, sea floor spreading.
Journals	Journal 1 – TEKS 8.2C, E; 8.3B; 8.9A,B Journal 2 – TEKS 8.3A Journal 3 – TEKS 8.3C
Activity	Crustal Features and Plate Tectonics – TEKS8.2E; 8.3B; 8.9B Evidence that Supports Plate Tectonics Theory – TEKS 8.2D; 8.3D; 8.4A; 8.9B Effects of Plate Tectonics 3D Mind Mapping– TEKS 8.9B

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STAARSmart Tests	Unit Tests: - 8.9 A,B – Effects of Plate Tectonics - Theories

Unit 6 : Topographic Maps– Theories - 8.9 C

Science Concepts TEKS	**8.9 (C)**
Instruction Module	**Topographic Maps**: In this Instruction Module students are introduced to topographic maps. They learn about the different parts of a topographic map and understand how it illustrates land features on Earth's surface.
IM Companion	**Topographic Maps**
Instruction Module	**Satellite Views of Land Features:** In this Instruction Module students are introduced to satellite images of Earth. They recognize how these images help us to identify land and erosional features.
IM Companion	**Satellite Views of Land Features**
Student Review	**Topographical Maps:** Students assess and review their understanding of how to interpret topographic maps using contour lines, contour intervals, index contour lines, scale, and legends.
Student Review	**Satellite Views of Land Features:** Students assess and review their understanding of interpreting land and erosional features seen on satellite images of Earth.
Interactivity/ Simulation	**Topographic Maps:** In this Interactivity, students identify the correct elevation of a location on a topographic map and predict the slope and land feature of that location.
WordExplorer	Topographic Maps
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Interpreting a topographic map, contour intervals, and identifying land and erosional features using satellite images.
Journals	Journal 1 – TEKS 8.2C, E; 8.9C Journal 2- TEKS 8.2C, E; 8.3B; 8.9C
Activity	Topographic Maps – TEKS 8.3B; 8.9C
STAARSmart Tests	Unit Tests: - 8.9 C – Topographic Maps

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Unit 7: Climate and Weather - 8.10 A, B, C

Science Concepts TEKS 8.10 A, B, C	
Instruction Module	**Weather and Weather Maps**: In this Instruction Module, students learn the difference between weather and climate, and how the Sun influences both. They also recognize the symbols on a weather map used to represent high pressure, low pressure, warm fronts and cold fronts.
IM Companion	**Weather and Weather Maps**
Instruction Module	**The Sun's Influence on Atmosphere and Oceans:** In this Instruction Module, students learn that the energy from the Sun causes convection currents in the atmosphere and oceans, producing winds and ocean currents. They recognize how winds and ocean currents distribute heat to influence weather in all parts of the world.
IM Companion	**The Sun's Influence on Atmosphere and Oceans**
Instruction Module	**Influence of Oceans on Weather and Climate:** In this Instruction Module, students learn about the role of the oceans in the water cycle and the formation of hurricanes. They understand the influence of ocean currents on weather and climate. They also learn what causes Él Niño and how it affects the weather globally.
IM Companion	**Influence of Oceans on Weather and Climate**
Student Review	**Weather and Weather Maps:** Students assess and review their understanding of weather and how to interpret the symbols on a weather map.
Student Review	**The Sun's Influence on Atmosphere and Oceans:** Students assess and review their understanding of how the Sun's energy powers winds in the atmosphere and currents in the oceans.
Student Review	**Influence of Oceans on Weather and Climate:** Students assess and review their understanding of the influence of oceans on weather systems, such as creation of hurricanes and Él Niño.
Interactivity/ Simulation	**Predict the Weather:** In this Interactivity, students recognize the types of weather associated with high/low pressure and warm/cold fronts.
WordExplorer	Climate and Weather
Quiz	The questions in the assessment section test the student's understanding of the following concepts:

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	Convection currents, high and low pressures, El Niño, hurricanes, cold and warm fronts, and the weather changes associated with each.
Journals	Journal 1 – TEKS 8.2C; 8.2E; 8.3B; 8.10C Journal 2 - TEKS 8.2C; 8.2E; 8.3B; 8.10B
Activity	El Niño – TEKS 8.2E; 8.3B; 8.10C Using Weather Maps to Predict Weather – TEKS 8.2D, E; 8.3B; 8.10B How Accurate are Weather Reports? (Comparative Investigation) – TEKS 8.1A, B; 8.2A, B, C, D, E; 8.3A; 8.4A; 8.10A, B, C Constructing a Model of an Anemometer (Descriptive Investigation; STEM) – TEKS 8.1B; 8.2A, 8.2C, D, E; 8.3B; 8.4A; 8.10A Convection Currents – TEKS 8.2C; 8.2E; 8.3B; 8.10A Constructing a Model of a Psychrometer– TEKS 8.10A The Uneven Heating of the Earth's Surface – TEKS 8.10A
Readers	**Ocean Currents:** Cold currents versus warm currents, and how they affect climates as they travel around the globe. **Science TEKS:** 8.10(C) **Reading Levels**: 2
	The Little Ice Age: A discussion of the possible causes of the Little Ice Age that lasted from the 14th century till the 19th century. **Science TEKS:** 8.10(C) **Reading Levels**: 2
	What Determines the Weather?: The role of air in forming weather and how scientists are learning how to predict the weather more accurately. **Science TEKS:** 8.10(B) **ELA TEKS:** 8.10(A), 2019 ELA TEKS: 8.8(D)i **Reading Levels**: 2
STAARSmart Tests	Unit Tests: 8.10 A, B, C – Climate and Weather

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Unit 8: Watersheds 7.8 C

Science Concepts TEKS 7.8 C	
Instruction Module	**Watersheds**: In this Instruction Module, students are introduced to watersheds. They learn what a watershed is and understand the significance of watersheds to all life on Earth. They also observe how watersheds are affected by natural and human activities, and learn what we can do to help protect watersheds.
IM Companion	**Watersheds**
Student Review	**Watersheds:** Students assess and review their understanding of the impact of human activities on groundwater and surface water in a watershed.
Interactivity/ Simulation	**Nitrogen Levels in Water:** In this Simulation, students collect water samples from different regions in a watershed and conduct water quality tests to discover the source of nitrogen that is entering the ocean.
WordExplorer	Watersheds
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Meaning of a water shed, role of gravity, boundaries of a watersheds, human activities that affect groundwater and surface water, ground water infiltration, runoff, the effects of erosion and sedimentation on watersheds.
Journals	Journal – TEKS 7.2C, E; 7.8C
Activities	Human Activity in Watersheds (Descriptive Investigation) – TEKS 7.1A, B; 7.2A, C, D, E; 7.3B, C; 7.4A, B; 7.8C pH Tolerance of Aquatic Organisms – TEKS 7.1A, B; 7.2A, C, D, E; 7.3B; 7.4A, B; 7.8C
Readers	**Water Pollution:** Drastic effects of water pollution on the environment, such as algal blooms, and how they water pollution is caused. **Science TEKS:** 5.9(C), 7.8(C), 8.11(C) **Reading Levels**: 1
STAARSmart Tests	Unit Tests: 7.8 C – Watersheds

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Unit 9 : The Solar System 6.11 A, B,C

Science Concepts TEKS : 6.11 A, B,C	
Instruction Module	**The Sun**: In this Instruction Module, students are introduced to the characteristics of the Sun. They learn how the process of fusion within the core of the Sun produces vast amounts of heat and light energy. They also learn how this energy is transferred through the different layers of the Sun and released into space as heat and light.
IM Companion	**The Sun**
Instruction Module	**The Solar System:** In this Instruction Module, students learn about the characteristics, locations, and some of the physical properties of the objects in our solar system including the planets, the asteroid belt, meteors, comets and Galilean moons.
IM Companion	**The Solar System**
Instruction Module	**History of Space Exploration:** In this Instruction Module, students learn about the history and future of space exploration. They are introduced to some of the people in history who impacted space exploration. They learn how inventions such as telescopes and space vehicles have helped in space exploration. They also examine how Newton's law of gravity explains the movement of plants in our solar system.
IM Companion	**History of Space Exploration**
Student Review	**The Sun:** Students assess and review their understanding of different layers that make up the Sun and the process of fusion within the Sun that produces heat and light.
Student Review	**The Solar System:** Students assess and review their understanding of the locations, the movements, and some of the physical properties of the planets and the Galilean moons in the solar system.
Student Review	**Asteroids, Meteors, and Comets:** Students assess and review their understanding of some of the physical properties of the objects in our solar system, such as the asteroid belt, meteors, and comets.
Student Review	**History of Space Exploration:** Students assess and review their understanding of some of the historical models of the solar system and how modern inventions have helped in space explorations.
Interactivity/ Simulation	**The Spotlight:** In this Interactivity, students identify the planets with the help of some clues and determine their correct location in the solar system.

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WordExplorer	The Solar System
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Characteristics, composition, locations, and movements of the Sun, planets, meteors, asteroids, and comets, and historical contributions of various scientists.
Journals	Journal 1 – TEKS 6.2C, E; 6.11A Journal 2 – TEKS 6.2C, E; 6.11B Journal 3 – TEKS 6.3B; 6.11A
Activities	The Solar System – TEKS 6.3D; 6.11B Celestial Bodies in the Solar System – TEKS 6.2C; 6.11A
Readers	**Plants in Space:** The advent of space travel opened new avenues for scientific experiments in space, and this text explains the general observations seen of plants growing in zero gravity. **Science TEKS:** 6.11 (C), 6.3 (D) **ELA TEKS:** 6.2(B), 6.5(F,G), 6.8(D) i, ii, iii **Reading Levels**: 2 **What Objects Share our Solar System:** Planets, dwarf planets, moons, asteroids, comets, and other celestial bodies that make up our Solar System. **Science TEKS:** 6.11(A), 6.3(D) **Reading Levels**: 2 **Inner Planets:** A look at the unique characteristics of the inner planets Mercury, Venus, Earth, and Mars. **Science TEKS:** 6.11(A) **ELA TEKS:** 6.2(B), 6.8(D) **Reading Levels**: 2 **Interplanetary Real Estate:** Written in the style of a real estate salesperson's pitch, the text introduces Jupiter's moons and the asteroid belt that circles our Solar System as options for rent or purchase. **Science TEKS:** 6.11 (A) **Reading Levels**: 2 **Basketball on the Moon:** The effects of mass on gravity explained in an imaginative scenario of basketball played on the Moon. **Science TEKS:** 6.11(B) **Reading Levels**: 2 **Space Industry:** The achievements of the US space industry through the years, mentions of Skylab, Hubble, and the aid provided to the ISS. **Science TEKS:** 6.11(C), 6.3(D) **ELA TEKS:** 6.3(A), 6.5(F), 6.9(D) **Reading Levels**: 1 **Mass, Weight, and Gravity:** Students in Mr. Smedley's class watch videos of astronauts walking and experimenting on the Moon, and

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	review their understanding of how mass, weight, and gravity are connected. **Science TEKS:** TEKS: 6.11(A); 6.11(B) **Reading Levels**: 1 **The Solar System:** What constitutes our solar system and how scientists think it was formed. **Science TEKS:** 6.11(A), 6.3(D) **ELA TEKS:** 6.10(C), 2019 ELA TEKS: 6.8(D)(iii) **Reading Levels**: 1
STAARSmart Tests	**Unit Tests: 6.11 A, B,C – The Solar System**

Reporting Category 4: Organisms and Environments

Unit 1 : Interrelationships Between Organisms - 8.11 A

Science Concepts TEKS 8.11 A	
Instruction Module	**Interrelationships between Organisms**: In this Instruction Module, students learn that organisms in an ecosystem interact with one another. They understand that these interactions are of different types, namely producer - consumer, predator - prey, and Host - parasite.
IM Companion	**Interrelationships between Organisms**
Instruction Module	**Abiotic Factors Influencing the Ecosystem:** In this Instruction Module, students learn about different abiotic factors in an ecosystem such as temperature, water, soil, atmosphere, and sunlight. They examine how organisms depend on and are influenced by these abiotic factors.
IM Companion	**Abiotic Factors Influencing the Ecosystem**
Student Review	**Interrelationships between Organisms:** Students assess and review their understanding of producer/consumer, predator/prey, and parasite/host relationships in food webs within marine, freshwater, and terrestrial ecosystems.
Student Review	**Abiotic Factors Influencing the Ecosystem:** Students assess and review their understanding of the abiotic factors, such as quantity of light, water, range of temperatures, or soil, influence ecosystems and the biotic factors within them.

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Interactivity/ Simulation	**Rhize 'n' Grow!:** In this Simulation, students observe the growth of two sets of red clover plants, one that is inoculated with Rhizobium bacteria and the other which is untreated. They measure the height and observe the leaves of both sets of plants at intervals of two weeks and record their observations. They arrive at a conclusion regarding the interrelationship between Rhizobium bacteria and red clover plants.
WordExplorer	Interrelationships between Organisms
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Ecosystem, biotic and abiotic factors, competition for food, light, water, and space, and dependence on range of temperatures or soil composition.
Journals	Journal - 8.2C; 8.2E; 8.3B;8.11A
STAARSmart Tests	**Unit Tests: 8.11 A – Interrelationships Between Organisms**

Unit 2 : Environmental Changes and Organisms - 8.11 B

Science Concepts TEKS	**8.11 B**
Instruction Module	**Adaptations to Seasonal Changes**: In this Instruction Module, students learn that some environmental changes such as seasonal changes are short-term. They examine some of the physical and behavioral adaptations plants and animals have that help them respond to these short-term environmental changes.
IM Companion	**Adaptations to Seasonal Changes**
Instruction Module	**Migration:** In this Instruction Module, students learn that organisms in an ecosystem migrate to cope with changing environmental conditions. They understand that seasonal migration is short-term migration and removal migration is a long-term, permanent migration.
IM Companion	**Migration**
Instruction Module	**Natural Selection:** In this Instruction Module, students learn that long-term environmental changes sometimes lead to changes in the genetic traits of organisms in a process called natural selection.

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IM Companion	**Natural Selection**
Student Review	**Adaptations to Seasonal Changes**: Students assess and review their understanding of how short- and long-term environmental changes in ecosystem affect traits of subsequent populations of organisms within them.
Student Review	**Migration:** Students assess and review their understanding of migration and its different kinds: seasonal migration and removal migration.
Student Review	**Natural Selection:** Students assess and review their understanding of how long-term environmental changes affect organisms through natural selection.
WordExplorer	Environmental Changes And Organisms
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Effect of short-term environmental changes such as fires and floods, and long-term environmental changes on organisms and traits in subsequent populations.
Journals	Journal - 8.2C; 8.2E; 8.11B
Activity	Environmental Changes and Organisms – TEKS 8.2E; 8.11B
STAARSmart Tests	**Unit Tests: 8.11 B – Natural Selection**

Unit 3 : Human Impacts on Ocean Ecosystems - 8.11 C

Science Concepts TEKS	**8.11 C**
Instruction Module	**Human Impact on Ocean Ecosystems**: In this Instruction Module, students learn about the different ways in which oceans are important. They also learn about the negative impacts of human activities such as over-fishing and pollution on oceans and biodiversity. Finally they learn about different steps that human can take to preserve marine ecosystems.
IM Companion	**Human Impact on Ocean Ecosystems**
Instruction Module	**Marine Resources:** In this Instruction Module, students learn that oceans provide us with many valuable resources such as food, transport, jobs, oil and natural gas.

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IM Companion	**Marine Resources**
Student Review	**Human Impact on Ocean Ecosystems:** Students assess and review their understanding of human's dependence on ocean systems and how human activities affect the oceans' biodiversity.
Student Review	**Marine Resources:** Students assess and review their understanding of human's dependence on ocean systems for natural resources, jobs, and transport.
Interactivity/ Simulation	**Trace the Waste:** In this Interactivity, students observe various human activities that could affect ocean ecosystems. They recognize the modes by which the pollution finally ends up in the ocean.
WordExplorer	Human Impacts on Ocean Ecosystems
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Marine food webs, water cycle, role of oceans in regulating climate, pollution of oceans through various sources, and the human impact on ocean ecosystems.
Journals	Journal 1 – TEKS 8.2E; 8.11C Journal 2 – TEKS 8.2C, D, E; 8.11C
Activity	Human Impacts on Ocean Ecosystems (Research Project) – TEKS 8.2E, 8.3A; 8.4A; 8.11D
Readers	**Coral Reefs and Ocean Diversity:** An explanation of how coral reefs provide food and shelter to other creatures, protect the shoreline, and provide economic benefits. It highlights the importance of protecting the coral reefs. **Science TEKS:** 3.9(A), 7.10(A), 8.11(C) **ELA TEKS:** 3.7(C), 3.9(D)i, ii, iii, 3.10(A, B, C) **Reading Levels**: 2
	Water Pollution: Drastic effects of water pollution on the environment, such as algal blooms, and how they water pollution is caused. **Science TEKS:** 5.9(C), 7.8(C), 8.11(C) **Reading Levels**: 1
STAARSmart Tests	**Unit Tests: 8.11 C – Human Impact on Ocean Ecosystems**

Unit 4 : Diversity of Life - 7.10 A, B

Science Concepts TEKS 7.10 A, B

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Instruction Module	**Factors Affecting Ecosystems**: In this Instruction Module, students learn that an ecosystem is made of abiotic and biotic components that are constantly interacting with one another. They understand how natural occurrences and human activates can affect ecosystems. They also gain an understanding of how biodiversity contributes to the sustainability of an ecosystem.
IM Companion	**Factors Affecting Ecosystems**
Instruction Module	**Biomes and their Environments:** In this Instruction Module, students are introduced to biomes. They learn about the different biomes on Earth and recognize some of the environmental and biotic characteristics that make each biome unique.
IM Companion	**Biomes and their Environments**
Student Review	**Biodiversity:** Students assess and review their understanding of how a higher variety of organisms in an ecosystem decreases the chances of an ecosystem collapsing when a food chain collapses.
Student Review	**Biomes-Deserts and Forests:** Students assess and review their understanding of features of deserts and forests biomes around the world, and how the organisms found in each have adapted to survive in them.
Student Review	**Biomes: Grasslands and Tundra:** Students assess and review their understanding of features of grasslands and tundra biomes around the world, and how the organisms found in each have adapted to survive in them.
Student Review	**Aquatic Biomes:** Students assess and review their understanding of features of aquatic biomes around the world, and how aquatic organisms have adapted to survive in them.
Interactivity/ Simulation	**Biomes and their Organisms:** In this interactivity, students will identify and sort organisms that belong and do not belong to a biome.
WordExplorer	Diversity of Life
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Biodiversity, biotic and abiotic factors, adaptations, environmental conditions of different biomes.
Journals	Journal 1 – TEKS 7.2C, E; 7.10A Journal 2 – TEKS 7.2C, E; 7.10B
Activity	Observing Biodiversity in a Schoolyard Microhabitat (Descriptive Investigation) – TEKS 7.1A, B; 7.2A, C, D, E; 7.4A, B; 7.10A

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	Insect Diversity (Descriptive Investigation) – TEKS 7.1A, B; 7.2A, C, D, E; 7.4A; 7.10A
Readers	**Coral Reefs and Ocean Diversity:** An explanation of how coral reefs provide food and shelter to other creatures, protect the shoreline, and provide economic benefits. It highlights the importance of protecting the coral reefs. **Science TEKS:** 3.9(A), 7.10(A), 8.11(C) **ELA TEKS:** 3.7(C), 3.9(D)i, ii, iii, 3.10(A, B, C) **Reading Levels**: 2
STAARSmart Tests	**Unit Tests: 7.10 A, B – Diversity of Life**

Unit 5 : Ecological Succession - 7.10 C

Science Concepts TEKS 7.10 C	
Instruction Module	**Ecological Succession**: In this Instruction Module, students learn that the gradual change in ecosystems over time is called ecological succession. They differentiate between primary and secondary succession. They also observe the ecological changes that take place over time starting with a hole in the ground.
IM Companion	**Ecological Succession**
Student Review	**Ecological Succession:** Students assess and review their understanding of the stages of ecological succession and the difference between primary and secondary ecological succession.
Interactivity/ Simulation	**Fit Them Right!:** In this Interactivity, students recognize the different stages of ecological succession in three different ecosystems.
WordExplorer	Ecological Succession
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Ecological succession in various ecosystems, the different stages of succession, primary and secondary successions.
Journals	Journal – TEKS 7.2C, E; 7.10C
Activity	Ecological Succession – *TEKS 7.2D, E; 7.3B; 7.10C*
STAARSmart Tests	**Unit Tests: 7.10 C – Ecological Succession**

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Unit 6 : Using Dichotomous Keys - 7.11 A	
Science Concepts TEKS 7.11 A	
Instruction Module	**Using Dichotomous Keys**: In this Instruction Module, students are introduced to dichotomous keys. They learn that a dichotomous key is used to identify organisms based on their physical traits and observe examples of how it is used to identify plants and animals.
IM Companion	**Using Dichotomous Keys**
Student Review	**Using Dichotomous Keys:** Students assess and review their understanding of why dichotomous keys are used and how to use them to identify plants and animals.
WordExplorer	Using Dichotomous Keys
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Classification of organisms into groups, recognition of traits, use of a dichotomous key.
Journals	Journal – TEKS 7.2C, E; 7.11A
Activity	Dichotomous Keys (Comparative Investigation) – TEKS 7.1A, B; 7.2A, C, D, E; 7.3A 7.4A, B; 7.11A
STAARSmart Tests	**Unit Tests: 7.11 A – Using Dichotomous Keys**

Unit 7 : Natural Selection and Selective Breeding 7.11 C	
Science Concepts TEKS 7.11 C	
Instruction Module	**Factors Influencing Natural Selection**: In this Instruction Module, students learn that natural selection is the process in which organisms with genetic traits best suited to an environment survive and reproduce. They observe how populations of species change over time due to natural selection. They also learn how environmental changes influence natural selection.
IM Companion	**Factors Influencing Natural Selection**
Instruction Module	**Selective Breeding:** In this Instruction Module, students learn that the process of selective breeding influences the traits of future generations and can result in new breeds of animals and plants. They compare hybridization and inbreeding, two types of selective

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	breeding, and recognize some the advantages and disadvantages of each.
IM Companion	**Selective Breeding**
Student Review	**Factors Influencing Natural Selection:** Students assess and review their understanding of natural selection and factors that influence it, such as variations within a population and environmental factors.
Student Review	**Selective Breeding:** Students assess and review their understanding of how humans create new species by selective breeding and some common selective breeding techniques, such as inbreeding and hybridization.
Interactivity/ Simulation	**Feed the Finch!:** In this Simulation, students investigate and find out if the shape of the beaks of finches is an adaptation to the kind of food available. They use different kinds of pliers to represent beaks and observe the type of food particles that can be picked up by each.
WordExplorer	Natural Selection and Selective Breeding
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Natural selection, selective breeding, reading data from a graph regarding natural selection in a population, comparing hybridization and inbreeding.
Journals	Journal 1 – TEKS 7.2E; 7.11C Journal 2 – TEKS 7.2C, E; 711C Journal 3 - TEKS 7.2C, E; 7.11C
Activity	Selective Breeding – TEKS 7.2E; 7.3A; 7.11C Geographic Speciation and Natural Selection – TEKS 7.3D; 7.4A; 7.11C
Readers	**Natural Selection:** A brief look at natural selection, explained using the unique organisms found on the Galapagos Islands. **Science TEKS:** 7.11(C) **ELA TEKS:** 7.10, 2019 ELA TEKS: 7.5.(F) **Reading Levels**: 2
STAARSmart Tests	Unit Tests: 7.11 C – Natural Selection and Selective Breeding

Unit 8 : Heredity and Genes 7.14 A, C

Science Concepts TEKS 7.14 A, C

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Instruction Module	**Genes and Heredity**: In this Instruction Module, students learn that heredity is the passing on of traits from parents to offspring. They recognize that genes located in the nucleus of cells are the structures responsible for the specific traits organisms inherit.
IM Companion	**Genes and Heredity**
Student Review	**Genes and Heredity:** Students assess and review their understanding of what genes are, where they are found, and how they are responsible for passing on traits from generation to generation.
Interactivity/ Simulation	**Packaging Fun:** In this Interactivity, students place labeled boxes one inside the other in the correct order to represent the location of genes within a cell.
WordExplorer	Heredity and Genes
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Different types of asexual reproduction, its occurrence in various organisms and sexual reproduction.
Journals	Journal 1 – TEKS 7.2E; 7.14A Journal 2 – TEKS 7.14C
Activity	Heredity and Genes – TEKS 7.2C; 7.14C
STAARSmart Tests	Unit Tests: 7. 14 A, C – Genes and Heredity

Unit 9: Types of Reproduction 7.14 B

Science Concepts TEKS 7.14 B	
Instruction Module	**Asexual Reproduction**: In this Instruction Module, students learn that asexual reproduction involves only one parent and that the offspring produced are genetically identical to their parent. They also learn how some organisms reproduce asexually through binary fission, spores, vegetative propagation, budding and fragmentation.
IM Companion	**Asexual Reproduction**
Instruction Module	**Sexual Reproduction:** In this Instruction Module, students learn that sexual reproduction requires two parents and that the offspring produced show some resemblance to both parents. They also learn about some methods of sexual reproduction such as conjugation and fertilization.

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IM Companion	**Sexual Reproduction**
Student Review	**Asexual Reproduction:** Students assess and review their understanding of why offspring produced in asexual reproduction, which includes fragmentation, budding, binary fission and vegetative propagation, are genetically identical to each other and to their parent.
Student Review	**Sexual Reproduction:** Students assess and review their understanding of why sexual reproduction, which includes conjugation and fertilization, requires two parents and that the offspring produced by sexual reproduction are genetically diverse from their parents and each other.
Interactivity/ Simulation	**Whose Parent is that Anyway?:** In this Interactivity, students differentiate between sexual and asexual reproduction, classify asexual reproduction as binary fission, budding, fragmentation, regeneration, spore formation and vegetative reproduction. They recognize the advantages and disadvantages of sexual and asexual reproduction.
WordExplorer	Types of Reproduction
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Location of genes and chromosomes, number of chromosomes, heredity and acquisition of genes from both parents.
Journals	Journal – TEKS 7.14B
Activity	Types of Reproduction – *TEKS 7.2C, E; 7.14B*
STAARSmart Tests	**Unit Tests: 7. 14 B –** Types of Reproduction

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Unit 10 : Taxonomic Classification 6.12 C, D

Science Concepts TEKS : 6.12 C, D	
Instruction Module	**Taxonomic Classification**: In this Instruction Module, students learn that taxonomic classification groups living organisms into smaller and smaller groups based on their similarities. They also understand the significance of using a standardized taxonomic classification system.
IM Companion	**Taxonomic Classification**
Instruction Module	**Three Domain Classification:** In this Instruction Module, students learn that all organisms are grouped into three domains - Archaea, Bacteria and Eukarya. They compare and contrast the main characteristics of organisms belonging to each domain. They also learn that organisms in Domain Eukarya are further divided into four kingdoms - Protista, Fungi, Plantae and Animalia and compare the features of organisms belonging to each kingdom.
IM Companion	**Three Domain Classification**
Student Review	**Taxonomic Classification:** Students assess and review their understanding of why the taxonomic classification was developed and how it classifies organisms in groups of decreasing sizes starting with Domains.
Student Review	**Classification of Organisms**: Students assess and review their understanding of the different characteristics used to classify organisms, such as prokaryotic or eukaryotic, unicellular or multicellular, autotrophic or heterotrophic classifications, and mode of reproduction.
Student Review	**Domains Bacteria and Archaea:** Students assess and review their understanding of the characteristics of the organisms of the domains Archaea and Bacteria.
Student Review	**Domain Eukarya:** Students assess and review their understanding of the characteristics of the organisms of the domain Eukarya and its four kingdoms: Protista, Fungi, Planta, and Animalia.
Interactivity/ Simulation	**Sort the Lot!:** In this Interactivity, students classify organisms into kingdoms based on their characteristics.
WordExplorer	Taxonomic Classification
Quiz	The questions in the assessment section test the student's understanding of the following concepts: Classification of organisms based on their characteristics, recognizing characteristics based on their classification, the hierarchy of classification

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Journals	Journal 1 – TEKS 6.2E; 6.12D Journal 2 – TEKS 6.12C
Activities	The Basic Characteristics of Kingdoms – *TEKS 6.2D, E; 6.12C, D* Investigating Reproductive Adaptations of Seed Plants, Part 1 – *TEKS: 6.1A, 6.1B; 6.2B, 6.2C, 6.2D, 6.2E; 6.3B; 6.4A, 6.4B, 6.12D* Investigating Reproductive Adaptations of Seed Plants, Part 2 – TEKS: *6.1A, 6.1B; 6.2B, 6.2C, 6.2D, 6.2E; 6.3B; 6.4A, 6.12D* Growing and Observing Yeast – 6.1A, B; 6.2 A, C, D, E; 6.4A, B; 6.12D
Readers	**The Building Blocks of Life:** A second narrative of an explanation of cells and their organelles using toy building blocks. **Science TEKS:** 6.12(A) (B) (D) **ELA TEKS:** 4.11(C), 2019 ELA TEKS: 4.9(D)iii **Reading Levels**: 3
STAARSmart Tests	**Unit Tests: 6.12 C, D – Taxonomic Classification**

STAATSmart Tests – Reporting Category Tests	
STAATSmart Tests	Reporting Category Tests: Matter and Energy Reporting Category Tests: Force, Motion, and Energy Reporting Category Tests: Earth and Space Reporting Category Tests: Organisms and Environments

STAATSmart Tests – STAAR Practice Tests	
STAATSmart Tests	STAAR Practice Tests - STAAR Practice (A) STAAR Practice Tests - STAAR Practice (B)

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