Department: Cocalico Connections Course: Science 6 Grade Level: 6

Outline for the course:

The Scientific Process and Earth in the Universe Scientific Inquiry Guided Notes Warm-Up Get ready for the lesson. Instruction How do scientists conduct scientific investigations? Summarv Review and connect what you learned. Assignment Describe scientific inquiry. **Quiz Answers** Hypotheses, Theories, and Laws Guided Notes Warm-Up Get ready for the lesson. Instruction What is the relationship between hypotheses, theories, and laws? Summary Review and connect what you learned. Assignment Describe hypotheses, theories, and laws. Quiz Answers Tools and Technology Guided Notes Warm-Up Get ready for the lesson. Instruction How are tools and technology used in science? Summary Review and connect what you learned. Assignment Analyze the use of technology and models in science. **Quiz Answers** Measurement Guided Notes Warm-Up Get ready for the lesson. Instruction How are things measured using the metric system? Summary Review and connect what you learned. Assignment Practice using the metric system. **Quiz Answers** Analyzing Data <u>Guided Notes</u> Warm-Up Get ready for the lesson. Instruction Summary Review and connect what you learned.

Assignment Analyze data and draw conclusions. Quiz Answers Evaluating Scientific Explanations Guided Notes Warm-Up Get ready for the lesson. Instruction How are scientific explanations evaluated? Summarv Review and connect what you learned. Assignment Read "Who Built the Pyramids?" **Quiz Answers** The Expanding Universe Guided Notes Warm-Up Get ready for the lesson. Instruction How do scientists theorize that the universe formed? Summary Review and connect what you learned. The Solar System Guided Notes Warm-Up Get ready for the lesson Instruction What contributions led to the acceptance of the heliocentric model of the solar system? Summary Review and connect what you learned. Assignment Describe the contributions that led to the heliocentric model of the solar system. **Quiz Answers** Planets Guided Notes Warm-Up Get ready for the lesson. Instruction How are the inner and outer planets characterized? Summary Review and connect what you learned. Assignment Compare inner and outer planets. **Quiz Answers** The Earth-Sun-Moon System Guided Notes Warm-Up Get ready for the lesson. Instruction How do the movements of Earth and the moon affect each other? Summary Review and connect what you learned. Assignment Explain how the movements of Earth and the moon affect each other. **Quiz Answers** Gravity and Motion Guided Notes Warm-Up Get ready for the lesson. Instruction How does the force of gravity affect objects in the universe? Summary Review and connect what you learned.

Assignment Explain how the force of gravity affects objects in the universe. **Quiz Answers** Unit Test **Unit Test Review Answers** Unit Test Answers Earth's Geosphere and Hydrosphere Landforms Guided Notes Warm-Up Get ready for the lesson. Instruction How do scientists describe the topography of an area? Summary Review and connect what you learned. Assignment Apply your knowledge of topography and landforms. Project: Landforms Model Create a model that shows a landform region. **Quiz Answers** Weathering and Soil Guided Notes Warm-Up Get ready for the lesson. Instruction How does weathering affect Earth's surface? Summary Review and connect what you learned. Assignment Apply your knowledge of weathering, soil formation, and soil classification. **Quiz Answers** Water and Wind Erosion Guided Notes Warm-Up Get ready for the lesson. Instruction How have water and wind shaped Earth's surface? Summary Review and connect what you learned. Assignment Describe how surface water, groundwater, glaciers, waves, and wind shape the surface. Short Writing Analyze the effects of weathering, erosion, and deposition in ecoregions of Texas. Project: Impacts of Erosion and Deposition Design a solution to a major erosion or deposition issue on a school campus. **Quiz Answers** Models of Earth Guided Notes Warm-Up Get ready for the lesson. Instruction How is Earth's surface mapped? Summary Review and connect what you learned. Assignment Apply your knowledge about models of Earth. Quiz Answers Surface Water Guided Notes Warm-Up Get ready for the lesson. Instruction

Where is Earth's freshwater stored? Summary Review and connect what you learned. Assignment Identify where Earth's fresh water is found and stored. Quiz Answers Groundwater Guided Notes Warm-Up Get ready for the lesson. Instruction What is groundwater, and how can it be accessed? Summarv Review and connect what you learned. Assignment Explain groundwater movement, groundwater zones, and how groundwater is accessed. **Quiz Answers** Ocean Water Guided Notes Warm-Up Get ready for the lesson. Instruction How can Earth's oceans be characterized? Summary Review and connect what you learned. Assignment Describe the characteristics of Earth's oceans. **Quiz Answers** Ocean Circulation Guided Notes Warm-Up Get ready for the lesson. Instruction What causes motion in the ocean? Summary Review and connect what you learned. Assignment Apply your knowledge to explain the motion of the oceans. **Quiz Answers** Cycles of Matter Guided Notes Warm-Up Get ready for the lesson. Instruction How does matter cycle through an ecosystem? Summarv Review and connect what you learned. Assignment Assess cycles of matter in an ecosystem. Project: The Water Cycle Create a model of the water cycle. **Quiz Answers** Unit Test **Unit Test Review Answers Unit Test Answers** Earth's History and Plate Tectonics Geologic Time Guided Notes Warm-Up Get ready for the lesson. Instruction How is the geologic time scale used to show Earth's history?

Summary Review and connect what you learned. Assignment Describe the geologic time scale and use it to detail Earth's evolution. Short Writing Explain how the geologic time scale is used to organize Earth's history. Project: Geologic Timeline Model Create a timeline that highlights events of a major geologic period. **Quiz Answers** Earth's Interior <u>Guided</u> Notes Warm-Up Get ready for the lesson. Instruction How is Earth's interior characterized? Summary Review and connect what you learned. Assignment Identify how Earth's interior is characterized. Project: Earth's Layers Create a model to show the different layers of Earth. **Quiz Answers** Continental Drift Guided Notes Warm-Up Get ready for the lesson. Instruction How are Earth's continents related? Summary Review and connect what you learned. Assignment Describe continental drift and explain the evidence that supports the theory. Quiz Answers Plate Tectonics <u>Guided Notes</u> Warm-Up Get ready for the lesson. Instruction How does the theory of plate tectonics explain the movement of Earth's plates? Summary Review and connect what you learned. Assignment Describe how the theory of plate tectonics explains the movement of Earth's plates. Short Writing Explain how plate tectonics have changed Earth's surface over time. Quiz Answers Lab: Plate Boundaries and Movement Warm-Up Get ready for the lesson. Instruction What effect does plate movement have on geologic events and structures at Earth's surface? Virtual Lab What effect does plate movement have on geologic events and structures at Earth's surface? Assignment: Reflect on the Lab Answer questions based on the lab activity. Lab Report Write your lab report. Summary Review and connect what you learned.

Rocks and the Rock Cycle Guided Notes

Warm-Up Get ready for the lesson. Instruction How are rocks identified? Summary Review and connect what you learned. Assignment Describe the properties used to identify rocks. **Quiz Answers Topographic Maps** Guided Notes Warm-Up Get ready for the lesson. Instruction How are topographic maps interpreted and used? Summary Review and connect what you learned. Assignment Apply your knowledge of topographic maps. Project: Topographic Maps Analyze and interpret topographic maps and satellite images. **Project: Modeling Landforms** Create a map and a three-dimensional model of a landform. Quiz Answers Test **Test Review Answers** Test Answers Earth's Atmosphere, Weather, and Climate Structure and Composition of the Atmosphere Guided Notes Warm-Up Get ready for the lesson. Instruction How is the atmosphere characterized? Summary Review and connect what you learned. Assignment Identify how Earth's atmosphere is characterized. **Quiz Answers** Energy in the Atmosphere Guided Notes Warm-Up Get ready for the lesson. Instruction How does energy travel through the atmosphere? Summary Review and connect what you learned. Assignment Explain how energy travels through the atmosphere. Quiz Answers Winds Guided Notes Warm-Up Get ready for the lesson. Instruction How do local and global winds differ? Summary Review and connect what you learned. Assignment Distinguishing local and global winds. **Quiz Answers**

Atmospheric Moisture and Precipitation Guided Notes Warm-Up Get ready for the lesson. Instruction What is the role of atmospheric moisture in the formation of clouds and precipitation? Summarv Review and connect what you learned. Assignment Describe the role of atmospheric moisture in the formation of clouds and precipitation. Quiz Answers Air Masses and Fronts Guided Notes Warm-Up Get ready for the lesson. Instruction How do the movements and interactions of air masses cause changes in weather? Summary Review and connect what you learned. Assignment Analyze air masses and fronts. Quiz Answers Storms Guided Notes Warm-Up Get ready for the lesson. Instruction What causes thunderstorms, tornadoes, and hurricanes? Summary Review and connect what you learned. Assignment Analyze severe storm formation and its effect on the environment. Quiz Answers Lab: Weather Patterns Warm-Up Get ready for the lesson. Instruction How do atmospheric conditions influence weather patterns? Virtual Lab How do atmospheric conditions influence weather patterns? Assignment: Reflect on the Lab Answer questions based on the lab activity. Lab Report Write your lab report. Summarv Review and connect what you learned. Factors That Affect Climate Guided Notes Warm-Up Get ready for the lesson. Instruction How do various factors affect climate? Summary Review and connect what you learned. Assignment Describe what causes the seasons and identify factors that affect weather and climate. Project: Modeling Earth's Tilt Create a model and write an essay analyzing Earth's seasons. Quiz Answers Unit Test Unit Test Review Answers

Unit Test Answers Weathering, Erosion, and Deposition Surface Water Guided Notes Warm-Up Get ready for the lesson. Instruction Where is Earth's freshwater stored? Summary Review and connect what you learned. Assignment Identify where Earth's fresh water is found and stored. **Quiz Answers** Groundwater Guided Notes Warm-Up Get ready for the lesson. Instruction What is groundwater, and how can it be accessed? Summary Review and connect what you learned. Assignment Explain groundwater movement, groundwater zones, and how groundwater is accessed. Quiz Answers Ocean Water Guided Notes Warm-Up Get ready for the lesson. Instruction How can Earth's oceans be characterized? Summary Review and connect what you learned. Assignment Describe the characteristics of Earth's oceans. Quiz Answers Weathering and Soil Guided Notes Warm-Up Get ready for the lesson. Instruction How does weathering affect Earth's surface? Summary Review and connect what you learned. Assignment Apply your knowledge of weathering, soil formation, and soil classification. **Quiz Answers** Test **Test Review Answers** Test Answers Matter and Its Properties Introduction to Matter Guided Notes Warm-Up Get ready for the lesson. Instruction What is matter? Summary Review and connect what you learned. Assignment Describe and measure matter. **Quiz Answers** Elements Guided Notes

Warm-Up Get ready for the lesson. Instruction What are elements and how do they differ? Summary Review and connect what you learned. Assignment Describe elements, isotopes, and ions. **Quiz Answers** Mixtures Guided Notes Warm-Up Get ready for the lesson. Instruction What is a mixture? Summary Review and connect what you learned. Assignment Practice identifying properties of pure substances and mixtures. **Quiz Answers** States of Matter Guided Notes Warm-Up Get ready for the lesson. Instruction How do solids, liquids, and gases differ? Summary Review and connect what you learned. Assignment Describe and identify states of matter. **Quiz Answers** Changes of State Guided Notes Warm-Up Get ready for the lesson. Instruction How does matter change from one state to another? Summary Review and connect what you learned. Assignment Recognize changes of state. Quiz Answers Physical Properties Guided Notes Warm-Up Get ready for the lesson. Instruction What happens during a physical change? Summarv Review and connect what you learned. Assignment Describe physical properties and physical changes. **Quiz Answers** Density Guided Notes Warm-Up Get ready for the lesson. Instruction What is densitv? Summary Review and connect what you learned. Assignment

Practice using density. Quiz Answers **Chemical Properties Guided Notes** Warm-Up Get ready for the lesson. Instruction What happens during a chemical change? Summary Review and connect what you learned. Assignment Identify properties of matter. **Quiz Answers** Unit Test **Unit Test Review Answers** Unit Test Answers Forces and Energy Introduction to Energy Guided Notes Warm-Up Get ready for the lesson. Instruction What is energy? Summary Review and connect what you learned. Assignment Apply the concept of energy. **Quiz Answers** Energy Transformations Guided Notes Warm-Up Get ready for the lesson. Instruction How does energy change from one form to another? Summary Review and connect what you learned. Assignment Identify potential and kinetic energy relationships. **Quiz Answers Electromagnetism Guided Notes** Warm-Up Get ready for the lesson. Instruction What is the relationship between electricity and magnetism? Summarv Review and connect what you learned. Assignment Identify the relationship between electricity and magnetism. Quiz Answers Introduction to Waves Guided Notes Warm-Up Get ready for the lesson. Instruction What are waves? Summary Review and connect what you learned. Assignment Describe waves. **Quiz Answers** Sound Waves Guided Notes

Warm-Up Get ready for the lesson. Instruction How are sound waves different from other waves? Summary Review and connect what you learned. Assignment Describe sound waves. **Quiz Answers** Properties of Light Guided Notes Warm-Up Instruction Summary Assignment Recognize the properties of light. The Electromagnetic Spectrum Guided Notes Warm-Up Get ready for the lesson. Instruction What is the electromagnetic spectrum? Summary Review and connect what you learned. Assignment Describe electromagnetic waves. Quiz Answers Introduction to Forces Guided Notes Warm-Up Get ready for the lesson. Instruction How do forces affect the motion of an object? Summarv Review and connect what you learned. Assignment Predict force interactions. Quiz Answers Potential and Kinetic Energy Guided Notes Warm-Up Get ready for the lesson. Instruction What is the relationship between potential energy and kinetic energy? Summary Review and connect what you learned. Assignment Apply potential and kinetic energy concepts. **Quiz Answers** Unit Test **Unit Test Review Answers**

Unit Test Answers

% of Course Time: Self-paced, to cover all topics in the outline from above

Textbooks & Supplemental Materials: Edgenuity lessons, supplemented by Cocalico Teachers of Record **Assessments:** Edgenuity quizzes and tests, performance tasks

Standards Addressed: Contact the Online Learning Facilitator for a supplemental document from Edgenuity outlining any applicable PA Standards address in the course topics. Note that for some courses, there are no PA Standards which may exist.



Eagle P.A.C.T. Course Connections:

Online Learning courses help to prepare students for the diverse ways in which they will learn outside of school. The self-paced, independent nature of virtual courses also helps to develop important skills such as self-advocacy, time management, organization, study skills, and self-discipline. Such skills are needed for a successful future.