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| *Name:* | *Grade Level:* | *Subject Area/Course* |
| **Scott Brever** | **11 & 12th** | **Earth / Space Science** |

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| ***Q & W*** | ***CONTENT & SKILLS*** | ***STRATEGIES & RESOURCES*** | ***ASSESSMENTS/******ACTIVITIES*** | ***STATE / National Standards*** |
| Q1 W1 | Chapter 27.1 – “Characteristics of Stars”* Describe how astronomers determine the composition and surface temperature of a star.
* Explain why stars appear to move to an observer on the earth.
* Name and describe the way astronomers measure the distance from the earth to the stars.
* Explain the difference between absolute magnitude and apparent magnitude.
 | * Non-Linguistic Representation (Parallax and H-R Lab)
* Higher Order Questioning (Spectral Analysis Lab)
* Reciprocal Teaching (Star Magnitude Lab)
* Inference Chart (27.1 Review Worksheet)
 | * **Spectral Analysis Lab and Report**
* **Parallax Activity and Report**
* **Star Magnitudes Lab and Report**
* **Hertzsprung-Russell Diagram Activity**
* **Ch 27.1 Review Worksheet**
* **Chapter 27.1 Quiz**
 | **The Nature of Science and Engineering** 9.1.3.4.2. - Select and use appropriate numeric, symbolic, pictorial, or graphical representation to communicate scientific ideas, procedures and experimental results.9.1.3.4.5 - Demonstrate how unit consistency and dimensional analysis can guide the calculation of quantitative solutions and verification of results.9.1.1.2.1 - Formulate a testable hypothesis, design and conduct an experiment to test the hypothesis, analyze the data, consider alternative explanations and draw conclusions supported by evidence from the investigation.9.1.3.4.4 - Relate the reliability of data to consistency of results, identify sources of error, and suggest ways to improve data collection and analysis. |
| Q1W2 | Chapter 27.2 – “Stellar Evolution”* Describe how a proto-star develops into a star.
* Explain how a main-sequence star generates energy.
* Describe the possible evolution of a star during and after the giant stage.
 | * Non-Linguistic Representation (Stellar Evolution Poster)
* Graphic Organizer (Stellar Evolution Concept Map)
* Inference Chart (27.2 Review Worksheet)
 | * **Stellar Evolution Concept Map**
* **Stellar Evolution Poster**
* **Chapter 27.2 Review Worksheet**
* **Chapter 27.2 Quiz**
 | **The Universe**9.3.3.3.2 - Explain how gravitational clumping leads to nuclear fusion, producing energy and the chemical elements of a star.**The Nature of Science and Engineering** 9.1.1.2.2 - Evaluate the explanations proposed by others by examining and comparing evidence, identifying faulty reasoning, pointing out statements that go beyond the scientifically acceptable evidence, and suggesting alternative scientific explanations. |
| Q1W3 | Chapter 27.3 – “Star Groups”* Describe the characteristics that identify a constellation.
* Describe the three main types of galaxies.
* Explain the big bang theory.

Chapter 1.3 – “Birth of a Theory: The Big Bang”* Distinguish between a hypothesis, a theory, and a scientific law.
* Describe the Doppler effect.
* Summarize the big bang theory of the origin of the universe.
* List evidence for the big bang theory.
 | * Higher Order Questioning (Constellation Lab)
* Story / Character Map (Constellation Paper)
* Non-Linguistic Representation (Milky Way Activity and Collected Wisdom Timeline)
* Reciprocal Teaching (Big Bang Lab)
* Inference Chart (27.3 Review Worksheet)
 | * **Constellation Lab and Report**
* **Constellation Paper**
* **Big Bang Balloon Lab**
* **Milky Way Galaxy Activity**
* **“Collected Wisdom” Video Timeline**
* **Ch 27.3 Review Worksheet**
* **Chapter 27.3 Quiz**
 | **The Nature of Science and Engineering** 9.1.1.2.3 - Identify the critical assumptions and logic used in a line of reasoning to judge the validity of a claim.9.1.1.1.6 - Describe how changes in scientific knowledge generally occur in incremental steps that include and build on earlier knowledge.9.1.1.1.7 - Explain how scientific and technological innovations, as well as new evidence, can challenge portions of, or entire accepted theories and models including, but not limited to: cell theory, atomic theory, theory of evolution, plate tectonic theory, germ theory of disease, and the big bang theory.9.1.3.4.6 - Analyze the strengths and limitations of physical, conceptual, mathematical and computer models used by scientists and engineers.**The Universe**9.3.3.3.1 - Explain how evidence, including the Doppler shift of light from distant stars and cosmic background radiation, is used to understand the composition, early history and expansion of the universe. |
| Q1W4 | Chapter 28.1 – “Structure of the Sun”* Explain how the sun converts matter into energy in its core.
* Compare the radiative and convective zones of the sun.
* Describe the three layers of the sun’s atmosphere.
 | * Compare and Contrast (Radiative and Convective Zones)
* Story / Character Map (Atmospheric Sun Story)
* Attribute Wheel (Sun’s Atmosphere)
* Inference Chart (Ch 28.1 Review)
 | * **Atmospheric Sun Story**
* **Chapter 28.1 Review Worksheet**
 | **The Nature of Science and Engineering** 9.1.3.4.1 - Describe how technological problems and advances often create a demand for new scientific knowledge, improved mathematics and new technologies.**The Universe**9.3.3.3.2 - Explain how gravitational clumping leads to nuclear fusion, producing energy and the chemical elements of a star. |
| Q1W5 | Chapter 28.2 – “Solar Activity”* Explain how sunspots are related to powerful magnetic fields on the sun.
* Compare prominences and solar flares.
* Describe how the solar wind can cause auroras on the earth.
 | * Venn-Diagram (Prominences and Solar Flares)
* Non-Linguistic Representation (Sun Spot Activity and Solar Viewer Lab)
* Inference Chart (Chapter 28.3 Review Worksheet)
 | * **Sun Spot Activity**
* **Solar Viewer Lab and Drawings**
* **Chapter 28.2 Review Worksheet**
 | **The Nature of Science and Engineering** 9.1.3.4.2 - Determine and use appropriate safety procedures, tools, computers and measurement instruments in science and engineering contexts. 9.1.1.2.1 - Formulate a testable hypothesis, design and conduct an experiment to test the hypothesis, analyze the data, consider alternative explanations and draw conclusions supported by evidence from the investigation. |
| Q1W6 | Chapter 28.3 – “Formation of the Solar System”* Explain the nebular theory of the origin of the solar system.
* Describe how the planets developed.
* Describe the formation of the land, the atmosphere, and the oceans of the earth.
 | * Inference Chart (Video Timeline and Ch 28 Review Worksheet)
 | * **The Birth of Earth Video Timeline Worksheet**
* **Ch 28.3 Review Worksheet**
* **Chapter 28 Test**
 | **The Universe**9.3.3.2.1 - Describe how the solar system formed from a nebular cloud of dust and gas 4.6 billion years ago.9.3.3.2.2 - Explain how the Earth evolved into its present habitable form through interactions among the solid earth, the oceans, the atmosphere and organisms. |
| Q1W7 | Chapter 29.1 – “Models of the Solar System”* Compare the models of the universe developed by Ptolemy and Copernicus.
* Summarize Kepler’s three laws of planetary motion.

Chapter 2.2 – “Movements of the Earth”* Describe the earth’s revolution and rotation.
* Tell why the seasons change.
* Explain how the sun is used as a basis for measuring time.
 | * Higher Order Questioning (Kepler’s Laws Worksheet)
* Venn Diagram (Solar System Models)
* Attribute Wheel (Kepler’s Three Laws)
* Inference Chart (Ch 29.1 Review Worksheet)
 | * **Kepler’s Laws Equation Worksheet**
* **Chapter 29.1 Review Worksheet**
 | **The Nature of Science and Engineering** 9.1.1.1.1 - Explain the implications of the assumption that the rules of the universe are the same everywhere and these rules can be discovered by careful and systematic investigation.9.1.1.1.2 - Understand that scientists conduct investigations for a variety of reasons, including: to discover new aspects of the natural world, to explain observed phenomena, to test the conclusions of prior investigations, or to test the predictions of current theories.**The Universe**9.3.3.2.3 - Compare and contrast the environmental conditions that make life possible on Earth with conditions found on the other planets and moons of our solar system. |
| Q1W8 | Chapter 29.2 – “The Inner Planets”* Identify the basic characteristics of Mercury and Venus.
* Identify the basic characteristics of Earth and Mars

Chapter 29.3 – “The Outer Planets”* Identify the basic characteristics of Jupiter and Saturn.
* Identify the basic characteristics of Uranus, Neptune, and Pluto.
 | * Graphic Organizer (Terrestrial and Jovian Planets)
* Reciprocal Teaching (Planet Density Lab)
* Inference Chart (Ch 29.2 / 29.3 Worksheet)
 | * **Planet Brochure Project**
* **Solar Stew Planet Densities Lab and Report**
* **Chapter 29.2 and 29.3 Review Worksheet**
 | **The Nature of Science and Engineering** 9.1.3.1.2 - Identify properties of a system that are different from those of its parts but appear because of the interaction of those parts.**The Universe**9.3.3.2.3 - Compare and contrast the environmental conditions that make life possible on Earth with conditions found on the other planets and moons of our solar system. |
| Q1W9 | Chapter 29.4 – “Asteroids, Comets, and Meteoroids”* Describe the physical characteristics of asteroids and of comets.
* Compare and contrast meteoroids, meteorites, and meteors.
 | * Venn Diagram (Asteroids vs. Comets)
* Compare / Contrast Analysis (Meteors)
 | * **Chapter 29 Review**
* **Chapter 29 Test**
 | **The Universe**9.3.3.2.3 - Compare and contrast the environmental conditions that make life possible on Earth with conditions found on the other planets and moons of our solar system. |
| Q2W1 | Chapter 30.1 – “The Earth’s Moon”* List the five kinds of lunar surface features.
* Describe the interior of the moon.
* Summarize the four stages in the development of the moon.

Chapter 17.1 – “Determining Relative Age”* State the principle of uniformitarianism.
* Explain how the law of superposition can be used to determine the relative age of rocks.
* Compare three types of unconformity.
* Apply the law of crosscutting relationships to determine the relative age of rocks.

Chapter 17.2 – “Determining Absolute Age”* Summarize the limitations of using the rates of erosion and deposition to determine the absolute age of rocks.
* Describe the formation of varves.
* Explain how the process of radioactive decay can be used to determine the absolute age of rocks.
 | * Attribute Wheel (Lunar Surface Features)
* Non-Linguistic Representation (Moon Stages of Development)
* Higher Order Questioning (Half Life Penny Lab)
* Inference Chart (Ch 30.1 / 17.1 / 17.2 Review Worksheet)
 | * **Interactive Transparency Worksheet (Earth-Moon System)**
* **Chapter 30.1 Review Worksheet**
* **Half-Life Penny Lab and Report**
* **Chapter 17.1 / 17.2 Review Worksheets**
 | **The Nature of Science and Engineering** 9.1.1.1.5 - Identify sources of bias and explain how bias might influence the direction of research and the interpretation of data. 9.1.1.2.1 - Formulate a testable hypothesis, design and conduct an experiment to test the hypothesis, analyze the data, consider alternative explanations and draw conclusions supported by evidence from the investigation.9.1.3.4.4 - Relate the reliability of data to consistency of results, identify sources of error, and suggest ways to improve data collection and analysis.9.1.1.2.3 - Identify the critical assumptions and logic used in a line of reasoning to judge the validity of a claim.**The Universe**9.3.3.2.3 - Compare and contrast the environmental conditions that make life possible on Earth with conditions found on the other planets and moons of our solar system.**Earth Structure and Processes**9.3.1.3.1 - Use relative dating techniques to explain how the structures of the Earth and life on Earth have changed over short and long periods of time. |
| Q2W2 | Chapter 30.2 – “Movements of the Moon”* Describe the orbit of the moon around the earth.
* Explain why eclipses occur.

Chapter 30.3 – “The Lunar Cycle”* Describe the phases of the moon.
* Explain how calendars are based on the movements of the earth and the moon.
 | * Inference Chart (Ch 30.2 / 30.3 Review Worksheets)
* Non-Linguistic Representation (Moon Phases Drawings)
* Higher Order Questioning (Moon Phases Activity)

  | * **Chapter 30.2 and 30.3 Review Worksheets**
* **Interactive Transparency Worksheet (Solar and Lunar Eclipses and Moon Phases)**
* **Moon Phases Activity and**

**Report** | **The Nature of Science and Engineering** 9.1.1.1.5 - Identify sources of bias and explain how bias might influence the direction of research and the interpretation of data. **The Universe**9.3.3.2.3 - Compare and contrast the environmental conditions that make life possible on Earth with conditions found on the other planets and moons of our solar system. |
| Q2W3 | Chapter 30.4 – “Satellites of Other Planets”* Compare the characteristics of the two moons of Mars.
* Compare the Galilean moons and the rings of Jupiter with the moons and rings of the other outer moons.

Chapter 2.3 – “Artificial Satellites”* Compare two types of satellite orbits.
* Discuss ways in which satellites are used to study the earth
 | * Venn Diagram (Moons of Mars)
* Compare / Contrast Analysis (Galilean Moons)
* Inference Chart (Ch 30.4 / 2.3 Review Worksheets)
 | * **Moon Paper and Report**
* **Chapter 30.4 and 2.3 Review Worksheets**
* **Chapter 30 Test**
 | **The Nature of Science and Engineering** 9.1.2.1.2 - Recognize that risk analysis is used to determine the potential positive and negative consequences of using a new technology or design, including the evaluation of causes and effects of failures. 9.1.2.1.3 - Explain and give examples of how, in the design of a device, engineers consider how it is to be manufactured, operated, maintained, replaced and disposed of.**The Universe**9.3.3.2.3 - Compare and contrast the environmental conditions that make life possible on Earth with conditions found on the other planets and moons of our solar system. |
| Q2W4 | Chapter 23.1 – “Characteristics of the Atmosphere”* Discuss the composition of the earth’s atmosphere.
* Explain how two types of barometers work.
* Describe the layers of the atmosphere.
* Identify the weather conditions that increase the effects of air pollution.

Chapter 23.2 – “Solar Energy and the Atmosphere”* Explain how radiant energy reaches the earth.
* Describe how visible light and infrared energy warm the earth.
* Summarize the processes of radiation, conduction and convection.
 | * Venn Diagram (Aneroid and Mercurial Barometers)
* Attribute Wheel (Atmospheric Layers)
* Higher Order Questioning (Barometer and Visible / Infrared Light Lab)
* Graphic Organizer (Radiation, Conduction, Convection)
* Inference Chart (Ch 23.1 / 23.2 Review Worksheets)
 | * **Interactive Transparency Worksheets (Composition of the Atmosphere / Atmospheric Cycles / Layers of the Atmosphere)**
* **Barometer Lab and Report**
* **Chapter 23.1 and 23.2 Review Packets**
* **Interactive Transparency Worksheet (Electromagnetic Spectrum)**
* **Visible / Infrared Light Activity and Report**
 | **The Nature of Science and Engineering** 9.1.1.2.1 - Formulate a testable hypothesis, design and conduct an experiment to test the hypothesis, analyze the data, consider alternative explanations and draw conclusions supported by evidence from the investigation.**Interdependence Within the Earth System**9.3.2.3.1 - Trace the cyclical movement of carbon, oxygen and nitrogen through the lithosphere, hydrosphere, atmosphere and biosphere.**Interdependence Within the Earth System**9.3.2.1.1 - Compare and contrast the energy sources of the Earth, including the sun, the decay of radioactive isotopes and gravitational energy.9.3.2.2.1 - Explain how Earth's rotation, ocean currents, configuration of mountain ranges, and composition of the atmosphere influence the absorption and distribution of energy, which contributes to global climatic patterns.**Human Interactions with Earth Systems** 9.3.4.1.2 -Explain how human activity and natural processes are altering the hydrosphere, biosphere, lithosphere and atmosphere, including pollution, topography and climate.  |
| Q2W5 | Chapter 23.3 – “Winds” * Describe the global patterns of wind.
* Describe some factors that create local wind patterns.

Chapter 24.1 – “Atmospheric Moisture”* Explain how water vapor enters the air.
* Explain the meaning of humidity and describe how it is measured.
* Describe what happens when the temperature of air decreases at or below the dew point.
 | * Compare / Contrast Analysis (Land and Sea Breezes)
* Inference Chart (Ch 23.3 / 24.1 Review Worksheets)
* Venn Diagram (Relative vs. Absolute Humidity)
* Reciprocal Teaching (Dew Point and Relative Humidity Lab)
 | * **Interactive Transparency Worksheets (Global Winds / Humidity)**
* **Chapter 23.3 Review Packet**
* **Chapter 23 Test**
* **Dew Point and Relative Humidity Lab**
* **Chapter 24.1 Review Worksheet**
 | **The Nature of Science and Engineering** 9.1.3.4.2. - Select and use appropriate numeric, symbolic, pictorial, or graphical representation to communicate scientific ideas, procedures and experimental results.9.1.1.2.1 - Formulate a testable hypothesis, design and conduct an experiment to test the hypothesis, analyze the data, consider alternative explanations and draw conclusions supported by evidence from the investigation.**Interdependence Within the Earth System**9.3.2.2.1 - Explain how Earth's rotation, ocean currents, configuration of mountain ranges, and composition of the atmosphere influence the absorption and distribution of energy, which contributes to global climatic patterns. |
| Q2W6 | Chapter 24.2 – “Clouds and Fog”* List the conditions that must exist for a cloud to form.
* Identify the types of clouds.
* Describe four ways fog may form.

Chapter 24.3 – “Precipitation”* Describe the various types of liquid and solid precipitation.
* Compare the two processes that cause precipitation.
* Describe how rain may be produced artificially.
* Describe how precipitation is measured.
 | * Graphic Organizer (Cloud Types)
* Attribute Wheel (Forms of Fog)
* Reciprocal Teaching (Cloud Formation Activity)
* Higher Order Questioning (Super-cooling Lab)
* Inference Chart (Ch 24.2 / 24.3 Review Worksheets)
 | * **Cloud Formation Activity**
* **Super-cooling Lab**
* **Chapter 24.2 and 24.3 Review Worksheets**
* **Chapter 24 Test**
 | **The Nature of Science and Engineering** 9.1.1.2.1 - Formulate a testable hypothesis, design and conduct an experiment to test the hypothesis, analyze the data, consider alternative explanations and draw conclusions supported by evidence from the investigation.9.1.1.2.3 - Identify the critical assumptions and logic used in a line of reasoning to judge the validity of a claim.9.1.1.1.6 - Describe how changes in scientific knowledge generally occur in incremental steps that include and build on earlier knowledge.**Human Interactions with Earth Systems**9.3.4.1.1 - Analyze the benefits, costs, risks and tradeoffs associated with natural hazards, including the selection of land use and engineering mitigation.  |
| Q2W7 | Chapter 25.1 – “Air Masses”* Explain how an air mass forms.
* List and describe the types of air masses that usually affect the weather of North America.

Chapter 26.1 – “Factors That Affect Climate”* Explain how latitude determines the amount of solar energy received on earth.
* Describe how the different rates at which land and water are heated affect climate.
* Explain the effects of topography on climate.

Chapter 25.2 – “Fronts”* Compare the characteristic weather patterns of cold fronts with those of warm fronts.
* Describe how a wave cyclone forms.
* Describe the stages in the development of hurricanes, thunderstorms, and tornadoes.
 | * Attribute Wheel (Types of Air Masses)
* Higher Order Questioning (Air Mass and Front Lab)
* Inference Chart (Ch 25.1 / 26.1 Review Worksheets)
* Graphic Organizer (Types of Fronts)
* Inference Chart (Ch 25.2 Review Worksheet)
 | * **Air Masses and Fronts Lab and Report**
* **Chapter 25.1 Review Worksheet**
* **Chapter 26.1 Review Worksheet**
* **Chapter 25.2 Review Worksheet**
 | **The Nature of Science and Engineering** 9.1.1.2.3 - Identify the critical assumptions and logic used in a line of reasoning to judge the validity of a claim.9.1.1.1.6 - Describe how changes in scientific knowledge generally occur in incremental steps that include and build on earlier knowledge.9.1.3.4.4 - Relate the reliability of data to consistency of results, identify sources of error, and suggest ways to improve data collection and analysis.**Interdependence Within the Earth System**9.3.2.2.1 - Explain how Earth's rotation, ocean currents, configuration of mountain ranges, and composition of the atmosphere influence the absorption and distribution of energy, which contributes to global climatic patterns.**The Nature of Science and Engineering** 9.1.1.2.1 - Formulate a testable hypothesis, design and conduct an experiment to test the hypothesis, analyze the data, consider alternative explanations and draw conclusions supported by evidence from the investigation. |
| Q2W8 | Chapter 25.3 – “Weather Instruments”* Describe the types of instruments used to measure air temperature and wind speed.
* Describe the instruments used to measure upper-atmospheric weather conditions.

Chapter 25.4 – “Forecasting the Weather”* Explain how a weather map is made.
* Describe the steps involved in preparing a weather forecast.
 | * Non-Linguistic Representation (Surface Weather Analysis Chart Activity)
* Graphic Organizer (Weather Instruments)
* Inference Chart (Ch 25.3 / 25.4 Review Worksheets)
 | * **Reading a Weather Map Worksheet**
* **Surface Weather Analysis Chart Activity**
* **Chapter 25.3 and 25.4 Review Worksheets**
* **Chapter 25 Test**
 | **The Nature of Science and Engineering** 9.1.3.1.3 - Describe how positive and/or negative feedback occur in systems. 9.1.3.4.2. - Select and use appropriate numeric, symbolic, pictorial, or graphical representation to communicate scientific ideas, procedures and experimental results.9.1.1.1.6 - Describe how changes in scientific knowledge generally occur in incremental steps that include and build on earlier knowledge.**Interdependence Within the Earth System**9.3.2.2.1 - Explain how Earth's rotation, ocean currents, configuration of mountain ranges, and composition of the atmosphere influence the absorption and distribution of energy, which contributes to global climatic patterns. |
| Q2W9 | Chapter 4.1 – “Continental Drift”* Explain Wegener’s hypothesis of continental drift.
* List evidence for Wegener’s hypothesis of continental drift.
* Describe seafloor spreading.

Chapter 4.2 – “The Theory of Plate Tectonics”* Summarize the theory of plate tectonics
* Compare the characteristic geologic activities that occur along the three types of plate boundaries.
* Explain the possible role of convection currents in plate movements.
* Summarize the theory of microplate terranes.
 | * Higher Order Questioning (Plate Tectonics Lab)
* Reciprocal Teaching (Convection Currents Lab)
* Inference Chart (Chapter 4.1 Review Worksheet)
* Attribute Wheel (Evidence for Continental Drift)
* Inference Chart (Chapter 4.2 Review Worksheet)
 | * **Plate Tectonics Lab and Report**
* **Convection Currents Lab and Report**
* **Chapter 4.1 Review Worksheet**
* **Chapter 4.2 Review Worksheet**
* **Chapter 4 Quiz**
 | **Earth Structure and Processes**9.3.1.1.3 - Describe how the pattern of magnetic reversals and rock ages on both sides of a mid-ocean ridge provides evidence of sea-floor spreading.9.3.1.1.4 - Explain how the rock record provides evidence for plate movement. 9.3.1.1.5 - Describe how experimental and observational evidence led to the theory of plate tectonics.**Earth Structure and Processes**9.3.1.1.1 - Compare and contrast the interaction of tectonic plates at convergent and divergent boundaries. 9.3.1.1.2 - Use modern earthquake data to explain how seismic activity is evidence for the process of subduction. **Interdependence Within the Earth System**9.3.2.1.2 - Explain how the outward transfer of Earth’s internal heat drives the convection circulation in the mantle to move tectonic plates.**The Nature of Science and Engineering** 9.1.1.1.7 - Explain how scientific innovations, as well as new evidence, can challenge accepted theories and models. |
| Q2W10 | Chapter 17.3 – “The Fossil Record”* Describe four ways in which entire organisms can be preserved as fossils.
* List four examples of fossilized traces of organisms.
* Describe how index fossils can be used to determine the age of rocks.

Chapter 18.2 – “Geologic History”* Identify the characteristics of Precambrian rock.
* Explain what scientists have learned from the geologic record about life during the Paleozoic era.
* Explain what scientists have learned from the geologic record about life during the Mesozoic era.
* Explain what scientists have learned from the geologic record about life during the Cenozoic era.
 | * Graphic Organizer (Fossil Formation)
* Attribute Wheel (Geologic History Eras)
* Inference Chart (Chapter 17.3 and 18.2 Review Worksheets)
* Non-Linguistic Representation (Geologic Time Scale Activity)
 | * **Chapter 17.3 Review Worksheet**
* **Geologic Time Scale Activity**
* **Chapter 18.2 Review Worksheet**
* **Fossil and Geologic History Quiz**
 | **Earth Structure and Processes**9.3.1.3.2 - Cite evidence from the rock record for changes in the composition of the global atmosphere as life evolved on Earth. 9.3.1.3.1 - Use relative dating techniques to explain how the structures of the Earth and life on Earth have changed over short and long periods of time.**Interdependence Within the Earth System**9.3.2.2.2 - Explain how evidence from the geologic record, including ice core samples, indicates that climate changes have occurred at varying rates over geologic time and continue to occur today.**The Nature of Science and Engineering** 9.1.3.4.2. - Select and use appropriate numeric, symbolic, pictorial, or graphical representation to communicate scientific ideas, procedures and experimental results.9.1.1.1.7 - Explain how scientific and technological innovations, as well as new evidence, can challenge portions of, or entire accepted theories and models |