


Geology (Master)

Teacher: Keith Kuhn

September 2020

Content	Skills	Learning Targets	Assessment	Resources & Technology
<p>CEQ HOW DO THE PROPERTIES OF EARTH'S MATERIALS (MINERAL & ROCKS) EXPLAIN THEIR FORMATION?</p> <p>HOW DO THE PROPERTIES OF EARTH'S MATERIALS (MINERAL & ROCKS) USED TO IDENTIFY THEM?</p> <p>HOW DO THE PROCESSES THAT FORMED THE EARTH SUGGEST TIMELINES FOR THE EARTH'S DEVELOPMENT?</p> <p>Minerals UEQ</p> <ul style="list-style-type: none"> How do the properties of minerals 	<p>Minerals</p> <ol style="list-style-type: none"> Describe minerals' basic properties. Identify the basic properties of minerals. Use the properties of mineral to identify minerals. 	<p>I can describe basic properties of minerals.</p> <p>I can use lab techniques to identify the basic properties of minerals.</p> <p>I can use the properties of minerals in labs to identify minerals.</p>	<p>Minerals</p> <ol style="list-style-type: none"> Lab - Mineral Hardness Lab - Mineral Properties Lab - Mineral Chart (properties with names) Lab - Mineral Identification Lab - Mineral Review Quiz Lab - Mineral Lab Quiz Minerals (not lab) Quiz Vocabulary Mineral Presentation. Test - Lab and General Mineral Information 	<p> Minerals</p> <p>Earth Science, Tarbuck & Lutgen copyright 2000. Tech Integration: Internet Research for a Mineral Presentation.</p> <p>Outdoor Activity: To be determined</p> <p>Informative: Queen of Precious Stones.Exploring Minnesota Minerals. On Mars, NASA Seems of be Brilliant.</p> <p>Lab Equipment for Mineral Testing.</p> <p>Key Vocabulary: atom cleavage compound double refraction element fluorescence fracture hardness heft luster magnetism</p>

<p>explain their formation?</p> <ul style="list-style-type: none"> How are mineral properties used to identify them? <p>Mineral Properties</p> <p>Basic Atomic Structure</p> <p>Mineral Identification</p>				<p>metallic luster</p> <p>mineral</p> <p>Moh's Hardness Scale</p> <p>nonmetallic luster</p> <p>phosphorescence</p> <p>radioactivity</p> <p>rock</p> <p>streak color</p>
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October

Content	Skills	Learning Targets	Assessment	Resources & Technology
<p>Rocks</p> <p>UEQ</p> <ul style="list-style-type: none"> How are Igneous, Sedimentary and Metamorphic Rocks classified? How do the properties of Igneous, Sedimentary, and Metamorphic Rocks relate to their formation? How are the properties of rocks used to identify them? 	<p>Rocks</p> <ol style="list-style-type: none"> Identify how Igneous, Sedimentary and Metamorphic rocks are classified. Understand how the properties of Igneous, Sedimentary and Metamorphic rocks relate to their formation. Use the properties of Igneous, Sedimentary and Metamorphic rocks to identify them. Understand that the formation of Igneous, Sedimentary and 	<ul style="list-style-type: none"> I can identify how Igneous, Sedimentary and Metamorphic rocks are classified. I can understand how the properties of Igneous, Sedimentary and Metamorphic rocks relate to their formation. I can use the properties of Igneous, Sedimentary and Metamorphic rocks to identify them in laboratory settings. I can identify that all rock types are 	<p>Rocks</p> <ol style="list-style-type: none"> Lab - Igneous Rock Properties Lab - Igneous Rock Chart Lab - Density of Earth's Crust Lab - Sedimentary Rock Properties Lab - Sedimentary Rock Chart Lab - Sediments Separation Lab - Metamorphic Rock Properties Lab - Metamorphic Rock Chart 	<p>Rocks</p> <p>Earth Science, Tarbuck & Lutgen copyright 2000.</p> <p>Lab Equipment for rock testing</p> <p>Outdoor Activity: To be Determined</p> <p>Informative: End of Cheap Oil.</p> <p>Key vocabulary</p> <p>igneous rocks</p> <p>lava</p> <p>magma</p> <p>extrusive igneous rocks</p> <p>intrusive igneous rocks</p> <p>crystallization</p> <p>Bowen's Reaction Series</p>

<ul style="list-style-type: none"> How does the rock cycle show the relationship among rock types? <p>Rock Classification</p> <p>Rock Properties</p> <p>Rock Cycle</p> <p>Rock Identification</p>	<p>Metamorphic rocks are interrelated = The Rock Cycle.</p>	<p>interrelated: The Rock Cycle.</p>	<p>9. Lab - Rock Review 10. Quiz - Rocks 11. Quiz - Rock Lab 12. Quiz - Vocabulary 13. TEST - Lab and General Rock Information</p>	<p>metamorphic rocks foliated metamorphic rocks nonfoliated metamorphic rocks regional metamorphism contact metamorphism sedimentary rocks clastic sedimentary rocks nonclastic sedimentary rocks chemical sedimentary rocks organic sedimentary rocks weathering erosion lithification compaction cementation precipitation evaporite rock cycle</p>
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November

Content	Skills	Learning Targets	Assessment	Resources & Technology
<p>Geologic Time</p> <p>UEQ</p> <ul style="list-style-type: none"> How are the relative dating 	<p>Geologic Time</p> <ol style="list-style-type: none"> Use the relative dating principles to determine the 	<ul style="list-style-type: none"> I can use the relative dating principles to determine the relative ages of geologic events. 	<p>Geologic Time</p> <ol style="list-style-type: none"> Relative ages quiz. Correlation quiz. 	<p>Geologic Time</p> <p>Earth Science, Tarbuck & Lutgen copyright 2000.</p> <p>Tech Integration: Online</p>

<p>principles used to determine the relative ages of geologic events?</p> <ul style="list-style-type: none"> ● How are correlation skills used to match similar geologic events? ● How are radiometric dating techniques used to determine numeric ages of geologic events? <p>RELATIVE AGES</p> <p>CORRELATION OF GEOLOGIC EVENTS</p> <p>RADIOMETRIC DATING</p>	<p>relative ages of geologic events.</p> <ol style="list-style-type: none"> 2. Establish correlation skills that will be used to match similar geologic events. 3. Utilize half-life math skills to determine a numeric age of geologic events. 	<ul style="list-style-type: none"> ● I can attain the skills used to match similar geologic events. ● I can utilize half-life math skills to determine a numeric age of geologic events. 	<ol style="list-style-type: none"> 3. Radiometric Dating quiz 4. TEST - Geologic Time. 	<p>research and use of Powerpoint to create a document that illustrates the key principles of geologic time.</p> <p>Key Vocabulary</p> <p>Relative Date</p> <p>Numerical Date</p> <p>Rock Record</p> <p>Principle of Uniformitarianism</p> <p>Principle of Superposition</p> <p>Principle of Original Horizontality</p> <p>Principle of Original Lateral Continuity</p> <p>Principle of Cross Cutting Relationships</p> <p>Principle of Inclusion</p> <p>Unconformity</p> <p>Angular Unconformity</p> <p>Disconformity</p> <p>Nonconformity</p> <p>Correlation</p> <p>Geologic Columns</p> <p>Radiometric Dating</p> <p>Radioactive Elements</p> <p>Radioactive Decay</p> <p>Half Life</p>
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