

Subject: Science Grade Level: 8th Grade Unit Title: Evolution in organisms and landforms (UNIT 3)		Timeframe Needed for Completion: 9 weeks Grading Period: 3rd 9 weeks		
Big Idea/Theme: Interpreting Earth’s geologic history and the evolution of life over time				
Understandings: How can our knowledge of current processes help us understand how the Earth came to exist?				
Essential Questions: <ul style="list-style-type: none">• What evidence is used to divide Earth’s history into eras and periods?• How do living organisms change when their environment changes?• Why have most of the species that have lived on earth gone extinct? Are we next?• How has technology provided scientists with information about the changing environment on Earth?• Why do geologists study the rock record to interpret past events?		Curriculum Goals/Objectives (to be assessed at the end of the unit/quarter)		
		Number	Competency or Objective	
		5.01	Interpret ways in which rocks, fossils, and ice cores record Earth's geologic history and the evolution of life including: <ul style="list-style-type: none">• Geologic Time Scale.• Index Fossils.• Law of Superposition.• Unconformity.• Evidence for climate change.• Extinction of species.• Catastrophic events.	
		5.02	Correlate evolutionary theories and processes: <ul style="list-style-type: none">• Biological.• Geological.• Technological.	
		5.03	Examine evidence that the geologic evolution has had significant global impact including: <ul style="list-style-type: none">• Distribution of living things.• Major geological events.• Mechanical and chemical weathering.	
		5.04 Analyze satellite imagery as a method to monitor Earth from space: <ul style="list-style-type: none">• Spectral analysis.• Reflectance curves.		

	<p>5.05 Use maps, ground truthing and remote sensing to make predictions regarding:</p> <ul style="list-style-type: none"> • Changes over time. • Land use. • Urban sprawl. • Resource management.
<p>Essential Skills/Vocabulary:</p> <ul style="list-style-type: none"> • Geologic Time Scale • Index Fossil • Law of Superposition • Unconformity • Extinction • Spectral Analysis • Reflectance curve • Urban sprawl • Ground truthing • Remote sensing 	<p>Assessment Tasks:</p> <ul style="list-style-type: none"> • Geologic Time Scale tape activity • Half-Life activity • CAP unconformity activity • Modeling Uniformitarianism pg. 385 • Peppered Moth article and activity • Lab: Plaster Fossils <ul style="list-style-type: none"> Milkyway Tectonics • Pangaea Puzzle • Unit Test and Chapter tests • Vocabulary Quizzes

Materials Suggestions:

- **Video: Darwin**
- **Lab equipment**
- **DPI unit on Geologic Time/ Evolution**
- **www.sciencespot.net**
- **CAP Textbook**
- **Receipt tape**