

Congruence with the NGSS

Unit Title: **Marine Sediments and Sedimentary Rocks: A Dozen Dead Oceans**

Science and Engineering Practices (SEPs)

SEPS	Activities
Asking Questions and Defining Problems	<ul style="list-style-type: none"> • Stratigraphy and Evolution: Using Fossils to Tell Deep Time • Climate Detectives Lab 1C: Where Are We Going
Developing and Using Models	<ul style="list-style-type: none"> • Stratigraphy and Evolution: Using Fossils to Tell Deep Time • Climate Detectives Lab 2A: Building a Model • Describing Cores
Planning and Carrying Out Investigations	<ul style="list-style-type: none"> • Stratigraphy and Evolution: Using Fossils to Tell Deep Time • Climate Detectives Lab 2A: Building a Model • Describing Cores
Analyzing and Interpreting Data	<ul style="list-style-type: none"> • Rock Identification • Stratigraphy and Evolution: Using Fossils to Tell Deep Time • Climate Detectives Lab 1 • Climate Detectives Lab 2A: Building a Model • Describing Cores
Constructing Explanations and Designing Solutions	<ul style="list-style-type: none"> • Rock Identification • Geologic Time • Stratigraphy and Evolution: Using Fossils to Tell Deep Time • Climate Detectives Lab 2A: Building a Model • Describing Cores
Engaging in Argument from Evidence	<ul style="list-style-type: none"> • Rock Identification • Geologic Time • Stratigraphy and Evolution: Using Fossils to Tell Deep Time
Obtaining, Evaluating and Communicating Information	<ul style="list-style-type: none"> • Stratigraphy and Evolution: Using Fossils to Tell Deep Time • Climate Detectives Lab 1A and 1C • Climate Detectives Lab 2A: Building a Model
Scientific Knowledge is based on Empirical Evidence	<ul style="list-style-type: none"> • Rock Identification • Geologic Time

Disciplinary Core Ideas (DCIs)

DCIs	Activities
ESS1C: The History of Planet Earth	<ul style="list-style-type: none"> • Geologic Time

ESS2A: Earth Materials and Systems	<ul style="list-style-type: none"> • Rock Identification
ESS2C: The Role of Water in Earth's Surface Processes	<ul style="list-style-type: none"> • Describing Cores
ESS2E: Biogeology	<ul style="list-style-type: none"> • Stratigraphy and Evolution: Using Fossils to Tell Deep Time

Cross Cutting Concepts (CCCs)

CCCs	Activities
Patterns	<ul style="list-style-type: none"> • Rock Identification • Geologic Time • Stratigraphy and Evolution: Using Fossils to Tell Deep Time • Climate Detectives Lab 2A: Building a Model
Cause and Effect	<ul style="list-style-type: none"> • Climate Detectives Lab 2A: Building a Model
Scale, Proportion, and Quantity	<ul style="list-style-type: none"> • Rock Identification • Geologic Time • Climate Detectives Lab 2A: Building a Model
Systems and System Models	<ul style="list-style-type: none"> • Climate Detectives Lab 2A: Building a Model
Structure and Function	<ul style="list-style-type: none"> • Rock Identification • Climate Detectives Lab 2A: Building a Model
Stability and Change	<ul style="list-style-type: none"> • Geologic Time
Interdependence of Science, Engineering and Technology	<ul style="list-style-type: none"> • Climate Detectives Lab 2A: Building a Model