

# FRANKLIN-SIMPSON HIGH SCHOOL

**Course Name:** AP Environmental Science      **Unit Name:** Earth Systems

**Objectives:**

Earth Systems and Resources

A. Earth Science Concepts

(Geologic time scale; plate tectonics, earthquakes, volcanism; seasons; solar intensity and latitude)

D. Soil and Soil Dynamics

(Rock cycle; formation; composition; physical and chemical properties; main soil types; erosion and other soil problems; soil conservation)

**Purpose of the Unit:**

The purpose of this unit is for students to learn about Earth Science, including the rock cycle, plate tectonics, and the properties of soil.

**Prerequisites:**

Biology, Earth/Space, Physics

**Daily Lesson Guide**

Day	Lesson Content and Objectives	Focus Questions	Critical Thinking (High Yield / Literacy /LTF/etc.)	Engagement	Assessment and/or Accommodations
1 M 9/10	Geology Rock Cycle Geologic Time	Explain how the earth has changed throughout its history, and how those same processes are seen today.	Synthesis of geologic time scale and or a rock's life cycle	Learning with others Novelty/Variety Choice Personal Response	Bell Ringer Assess product

<b>2</b> T 9/11	Fossils Earth's Time Line	What have the major events of Earth's history been, and how do we have evidence of them today?	Application of events in Earth's history	Learning with others Emotional/Intellectual Safety	Bell Ringer Assess product
<b>3</b> W 9/12	Plate Tectonics Sea Floor Spreading Continental Drift Subduction Divergent Convergent Transform Plate movement Lab	How have plate tectonics shaped the earth, and what effects do they still have on the earth today?	Comprehension	Emotional/Intellectual Safety Authenticity	Bell Ringer Clickers Check HW tomorrow
<b>4</b> R 9/13	Earthquake Lab Tsunamis	Find the epicenter of an earthquake based on P and S wave data.	Synthesis	Authenticity	Bell Ringer Check lab
<b>5</b> F 9/14	Volcano Lab Effects of Volcanoes Types of Volcanoes	Describe the various types of volcanoes, what factors do they have in common?	Analysis of volcanoes	Novelty/Variety	Bell Ringer Check work in class
<b>6</b> M 9/17	Seasons Coriolis Effect Solar Intensity Latitude	How do Earth's seasons dictate other factors on Earth?	Comprehension	Clear/Modeled expectations	Bell Ringer
<b>7</b> T 9/18	Soil Profile Soil Formation Soil Components	How does soil form, and how does that give it its characteristics?	Comprehension	Clear/Modeled expectations	Bell Ringer
<b>8</b> W 9/19	Weathering Lab	Predict which type of rock will be most affected by chemical and physical weathering.	Synthesis	Clear/Modeled Expectations Learning with others Authenticity	Bell Ringer Lab reflection
<b>9</b>	Soil Composition Lab	Determine the	Synthesis	Clear/Modeled Expectations	Bell Ringer

R 9/20		properties of unknown soil samples.		Learning with others Authenticity	Lab reflection
<b>10</b> F 9/21	Soil Profile Lab	Predict the outcomes of runoff on different soil profiles.	Synthesis	Clear/Modeled Expectations Learning with others Authenticity	Bell Ringer Lab reflection
<b>11</b> M 9/24	Soil Legislation Fertilizers Other Soil Properties	Explain soil's role in today's world.	Comprehension	Clear/Modeled Expectations	Bell Ringer
<b>12</b> T 9/25	Mining Lab	Show how mining affects the disturbance of land.	Evaluation	Clear/Modeled Expectations Learning with others Authenticity	Bell Ringer Lab reflection
<b>13</b> W 9/26	Review	Review			Bell Ringer
<b>14</b> R 9/27	MC Test Day ( <b>ALL</b> )		Evaluation		Bell ringer/Exit Slip Summative Exam
<b>15</b> F 9/28	FRQ Test Day ( <b>ALL</b> )		Evaluation		Bell ringer/Exit Slip Summative Exam