

## Coevolution Project

Task: You will research a specific **geologic period** in which there is **evidence** of a change in living things taking place as a result of a change in another Earth System.

Background: Review evolution and ecology as they explain interactions of living things and Earth systems ([video](#))

Standard: HS-ESS2-7. Construct an argument based on evidence about the simultaneous coevolution of Earth's systems and life on Earth.

**Requirements:** these can be used to reference paragraph topics

1. **Describe** the time period you are investigating.
  - a. When? How long ago? Name the Era, Period, Epoch...
  - b. What was Earth like in terms of Earth Systems? (Atmosphere, Hydrosphere, Geosphere)
  - c. What was the biosphere like, in general? (single-celled organisms? Land animals? Trees?)
2. **Describe** the focus of your investigation (event, change, organism, etc)
  - a. Is it a living organism or group of living things?
  - b. Is it a change in one or more of Earth's systems?
  - c. Outline the relationship between the change in Earth system and coevolution of living thing(s)
3. **Outline** the evidence that has been found for this change
  - a. Fossils?
  - b. Evidence from ice cores?
  - c. DNA evidence?
  - d. Radiometric Dating?

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## Coevolution Project Rubric

Name : \_\_\_\_\_

- \_\_\_\_\_ **Description\*** of period (How long ago; name of Era, Period, and Epoch) - **2pts**
- \_\_\_\_\_ **Description** of Earth conditions (Atmosphere, Hydrosphere, Geosphere) - **2pts**
- \_\_\_\_\_ **Description** of biosphere of the time period - **2pts**
- \_\_\_\_\_ **Description** of focus of investigation (emergence of certain condition or type of organism) - **2pts**
- \_\_\_\_\_ **Outline\*\*** of relationship between organism(s) and conditions (coevolution) - **4pts**
- \_\_\_\_\_ **Description** of at least 3 lines of evidence of this evolutionary relationship - **6pts**

\*Describe - Give a detailed account or picture of situation, event, pattern, or process

\*\*Outline - Give a brief account.

TOTAL \_\_\_\_\_ / 18

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