Students observe the properties of leaf size, shape, and margin. Students categorize, or group leaves and use these categories to determine the temperature under which the leaves grew.

- Fossil leaves demonstrate how plants are influenced by their environment.
- Fossil leaves provide information about how climate has changed over time.
- Different kinds of trees grow under different temperature conditions.
- Fossil leaves have many different properties.
- Leaf margins are an indicator of the temperature in which a tree lives or lived.
- Paleobotanists use the margins of fossil leaves to infer past temperatures.

- What properties of fossil leaves can be used to identify them?
- How do those properties indicate what the climate was like when the leaves were alive?
- Observe, describe and compare the properties of fossil leaves.
- Examine how plants are influenced by climate.
- Observe that climate has changed over geologic time.
- Observe how different groups of plants occur in different fossil deposits.
- Compare their work to the work of

http://www.stratigraphy.org/column.php?id=Chart/Time%20Scale is a website where you can download a global Geologic Time Scale as ratified by the International Commission on Stratigraphy.

http://www.newyorkscienceteacher.com/sci/esl/es/spanish-es.pdf is a website that lists Spanish translations of Earth Science Terms.

<u>http://puzzlemaker.discoveryeducation.com/</u> is a website where you can easily create your own crossword puzzles or word searches using the listed vocabulary words.



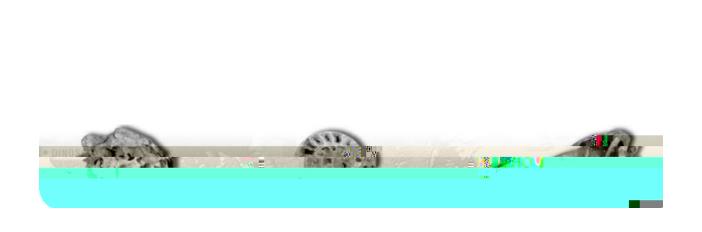
24 Fossil Leaf Cards (12 each from Florissant Flora and Green River Flora)
2 Fossil Leaves – one smooth edged and one jagged edged
Paleotemperature Chart
Diagram of Leaf Margin Classification
Investigation Worksheet

1. Introduce Paleobotany.

Explain to students that they are going to be paleobotanists and that the study of fossil plants is called Paleobotany. The wor

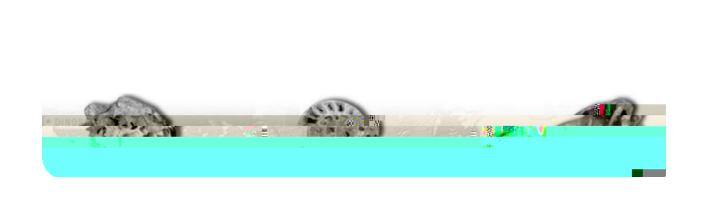


1. Examine the fossil leaf photos, looking at leaf shape and details such as \boldsymbol{v}



- One of the basic phenomena of biology, the process whereby an organism becomes better suited to its habitat.
- Features that can be used to identify or distinguish between different fossils.
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Number of smooth leaves

Number of jagged leaves



