



PROBLEM SOLVING ACTIVITY: WHAT CAUSES ICE AGES?

OBJECTIVE: Students will:

- + Read and discuss a short reading selection about ice ages;
- + Interpret a line graph illustrating glacial and interglacial periods;
- + Understand what a feedback mechanism is and how it works;
- + Interpret and analyze a theory about ice age formation;

MATERIALS:

- + Student Activity Sheets
- + Paper and pencil

PROCEDURE:

1. Read and discuss the selection about ice ages with the class.
 - + Present some images to provide a visual idea of what Earth was like during the last Ice Age.
2. Show a transparency of the graph of glacial and interglacial periods.
 - + Ask student questions which will make clear the information being presented in the graph and how the cold and warm arrows coincide with the increase and decrease in glacial periods.
3. Separate students into groups of 3-4 and assign one of the causes of ice ages to each group.
 - + Give the class time to discuss and make a short list of what kind of events could occur within each.
 - + The groups should be ready to share their ideas with the class.
4. Spend as much time as necessary on the concept of a feedback loop.
 - + Relate this concept to cause and effect relationships and present as many examples as possible.
5. Each group should then break out and begin work on interpreting and analyzing the image of the **Ocean Control Theory**.
 - + The group may work together interpreting the diagram.
 - + Each student should complete all written activities.

