

Details



Completion Time: About 1 period

Permission: Download, Share, and Remix

Ecological Cycles Part 1-Draw the Water Cycle

Overview

In this activity, students diagram the hydrologic cycle. Most of the concepts will already be familiar to middle and high school students, but this activity is a good way to prepare for making the far more challenging carbon cycle and energy NON-cycle diagrams.

Objectives

- Students understand that the total amount of water on Earth is constant.
- Students understand that polar ice is by far the second most important reservoir of water on Earth.
- Students understand the concept of an ecological cycle, so they can subsequently apply the concept to carbon, nitrogen, and other ecological materials.

Lesson Preparation

No prior content is needed.

Procedure

- Show the Power Point presentation
- Discuss
- Read through the handout
- Show student work
- Turn students loose to complete the diagram

Extension

This is a good warm-up for tackling diagrams of the Carbon Cycle, Nitrogen Cycle and Energy NON-Cycle.

Resources

http://drake.marin.k12.ca.us/academics/rock/ROCK_Documents.htm

Assessment

The diagram is graded holistically. Emphasis is given to the clarity with which the concept of “cycle” is graphically expressed. Questions on a unit exam test specific

Materials

- Handouts
- Power Point
- Examples of student work
- 11" x 17" sheets of paper
- Colored pencils, pens, crayons



content knowledge. For instance “Ninety seven percent of the world’s water is in the oceans. Where is most of the rest of it stored?”

Credits

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National Science Education Standards (NSES):

Content Standards, Grades 9-12

Content Standard D: Earth and Space Science

b. Geochemical cycles

Content Standard F: Science in Personal and Social Perspectives

c. Natural resources

Other Standards:

N/A