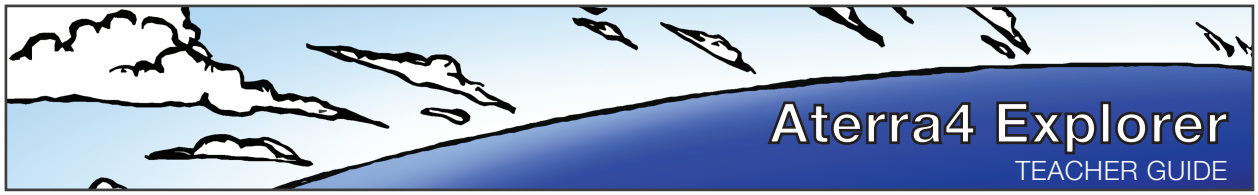

Abstract

When given a hypothetical other-worldly environment, students identify how the environment provides the conditions that support life, and the challenges to life the environment presents. They design and draw an organism with specific features (adaptations) that would allow it to live in the conditions described.

Instructions

1. Distribute an Aterra4 Explorer worksheet and one planet description card to each student. (There are six different planets to work with.)
2. Have students follow the instructions on the worksheet, using the information on their planet card to create an organism.

Extension

Group students together by planet. Have them draw the planet's environment on butcher paper and place each of their organisms inside of it (or if they are microscopic, indicate where they might be found and provide a microscope view). Report out.

Adaptations

Make up your own challenges to life.

Add extremophile cards to the environments.

Optional

Conclude the activity with a discussion about how the environment of a planet can change over time. (This happened with early earth when microbes changed the atmosphere by filling it with oxygen, a waste product of photosynthesis.) If the environment of our hypothetical planet changed, which of the students' organisms would survive and why? What existing adaptations would be required for survival?