

Rice Atoll Formation

Purpose: Students will learn the basic structure of a volcanic island, the process of reef formation, and how the reef changes during island subsidence.

Required background: Students should be familiar with the idea of volcanic islands and coral reefs.

Materials:

1. Rice (land)
2. Soy Sauce (ocean water)
3. Furikake (flakes to symbolize the reef)

Procedure:

1. Introduce the topic. Give an overview of oceanic volcanism, hot spots, island formation, subsidence. Review the different types of reefs surrounding tropical islands and continents. Invite students to think about how what factors contribute to coral growth, what might happen to the reefs as the islands subside.
2. Provide pictures of island/reef systems, review different structures.
(useful resource <http://oceanservice.noaa.gov/education/kits/corals/welcome.html>)
3. Students can then design the three types of reef/island systems using the rice. At the end of the class the students can present their models and explain the differences.

