

# Can the Earth's Oceans Feed the World and Absorb Our Wastes?

## Key Concepts

1. It has taken billions of years for the earth and its inhabitants to develop to current configurations; evolution is a slow process.
2. This is a dynamic planet; things are always changing.
3. Instead of small, individual, unconnected communities, we are part of a global system which includes the oceans.
4. What we do now may have unforeseen effects upon other organisms and/or ourselves over time.
5. We do not know everything; there is still a lot to learn.
6. Each of us has a responsibility to share our knowledge with others.



## Background

Connections and change. Those are the two messages to be taken from this study of the marine world. The seemingly stable earth that we know has taken billions of years to develop to its current configurations; evolution is a slow process. In spite of the view we often hold which sees us as many, small, individual, unconnected communities, we are part of a single global system which includes the oceans. As a result, our present actions may have unforeseen effects upon other organisms and/or ourselves over time.

We have learned something about the global ocean, but we have not begun to know everything; there is still a lot to learn. As citizens, teachers, and students, each of us has a responsibility to share our knowledge with others.

## Materials

- a variety of children's books for illustration and vocabulary ideas
- assorted art supplies for props, puppet-making, illustrations

## Teaching Hints

“Can the Earth’s Oceans Feed the World and Absorb Our Wastes?” is a culminating activity in which students, working in groups of 4-5, select a theme and prepare a presentation to be given to a younger audience. Having students present to a younger audience forces them to synthesize the information, simplify it into the most important concepts and ideas, and organize it logically. In addition, 8th grade students are usually more comfortable presenting to a younger audience.

The form of the presentation should be selected by the student group and might include a play, puppet show, newscast, illustrated book, or any other medium that seems suitable.

1. Students, as a class, should brainstorm the various themes or “important messages” they learned while they progressed through these various activities. Encourage them to think about themes and not facts.

Themes might include:

- a. we need to be aware of our environment
  - b. small changes can have large and long lasting effects, both positive and negative
  - c. individuals can make a difference
  - d. what happens here may affect communities far away
  - e. we don’t know everything yet.
2. Once they have identified several themes, students should be divided into groups of 4 or 5. In their groups, the students will select a theme, develop characters and a plot, and select a method of presentation.
  3. Make arrangements for your students to make their presentations at a nearby elementary school, or invite K-4 students to your school for the “show” and a tour of your school.

## Key Word

**brainstorming** - a meeting, often loosely structured, at which participants present ideas in a non-judgmental environment