

COMPARING APPLES & EARTH

JUST HOW MUCH OF THE EARTH'S SURFACE IS NEEDED FOR GROWING FOOD FOR A WORLD OF PEOPLE?

Materials

- apples (or substitute, eg potatoes)
- chopping boards or plates
- knives

Risk alert: Use of knives, especially with younger students. A demonstrator could cut one apple and students eat an approximate amount.



Instructions

Slice an apple into quarters. Set aside three of the quarters, as they represent water on the Earth's surface. Cut the remaining quarter in half. Set aside one of the halves as uninhabited deserts, swamps and the Arctic and Antarctic areas.

Divide the remaining piece into quarters. Set aside three of the pieces for land that is too rocky, wet, hot or poor for crop production.

The remaining piece is 1/32nd of the original apple. Peel this section. The peel represents the thin layer of soil that is available for producing all of the world's food crops.

Suggestions

Step by step, read the instructions to the students for them to follow. It is more effective if they do not have the instructions in front of them. The activity can be done in pairs, or it can be demonstrated by the teacher and one or two students, depending on circumstances and age (Provide the students with a copy of the activity to take home to do with their families)

Discussion points will be directed by the purpose of using the activity and year level of students.

Experience and feedback from teachers suggest it is more effective to save the discussion to the end of the activity.

Discussion

What is the key message underlying the activity?

What actions can students take to care for their patch of this precious Earth: ...as individuals, as a class and school, with their families, in their community?

Compare apples and Earth to introduce the concepts of sustainability, without using the word (which is so difficult to define). Produce concept maps based on discussion

Use as a prompt or example for students to produce a game or puzzle or poster or other means of delivering a similar message. Use of our natural resources to produce food and fibre is essential. Careful management of the environment through improved knowledge and technologies in agriculture is necessary to ensure we will always have those natural resources to use without causing environmental damage, such as loss of biodiversity and declining health of rivers.

Adapted from resources of California Foundation for Agriculture in the Classroom