

Soils in My Food Web

Wyoming Science, Language Arts

Objectives:

- Students will be able to draw and explain soils role in the food web.
- Student will be able to discuss the importance of soil to life.

Background:

Soil means something different to every organism, including people, depending on the perspective. In this activity, students are asked to look at soil from 10 different perspectives (soil food web) and explore why each perspective is different (Activity 3). Regardless of our point of view, all things in the food web rely upon the soil and energy from the sun to thrive.

Activity Procedures:

Activity 1 - My Soil Food Web

1. Provide each student with the handout: My Soil Food Web on page 3.
2. Students should write the name of 10 things they have used or come in contact with that day in each box.
3. Ask each student to complete the Soil Food Web by drawing arrows between themselves, the items, and their direct connection to the soil. The item closest to the soil should be something that has actual contact. For example, milk can be traced to cows. Cows are not directly connected to the soil except through plants, like alfalfa and grains. These are directly traced to the soil, and should be included as the closest object to the soil.
4. Students should draw boxes around the items they add to make the connections to the soil.

Activity 2 - The Yarn Web Game

1. Ask each student to pick one of the 10 items they listed for their food web and write the items name (big) on a half sheet of paper or on an index card. You may want to assign the students their parts so you don't get 10 cows and 10 wheat plants. They should write the name as large as possible, preferably with marker or crayon. Then using a piece of yarn and a hole-punch, make a necklace to hang the sign around each students neck. One student or the teacher must wear a sign that says soil.



Standards

Science

Life Systems:
1.1, 1.3

Language Arts

3rd Grade:
Speaking and Listening:
3.1, 3.3, 3.4

Materials

- Soil Food Web Activity
- Sheet
- Yarn
- Index Card or Construction Paper
- Hole-Punch
- Scissors
- Crayons or Markers

Estimated Time

(3)-30 Minute
Activities

Grades 3-4

vocabulary:

- *food web*
- *civil engineer*
- *geologist*
- *hydrologist*

2. Pick any student to begin by tossing a ball of yarn to someone else that they are related to in the food web. If they are not related to any one of the other items, the yarn can always be tossed to the person wearing the soil sign. An intricate web should be woven. Several students should be tossed the yarn more than once. When everyone has been included in the web, take a look at how they are all connected to the soil.

Activity 3 What does soil mean to a _____?

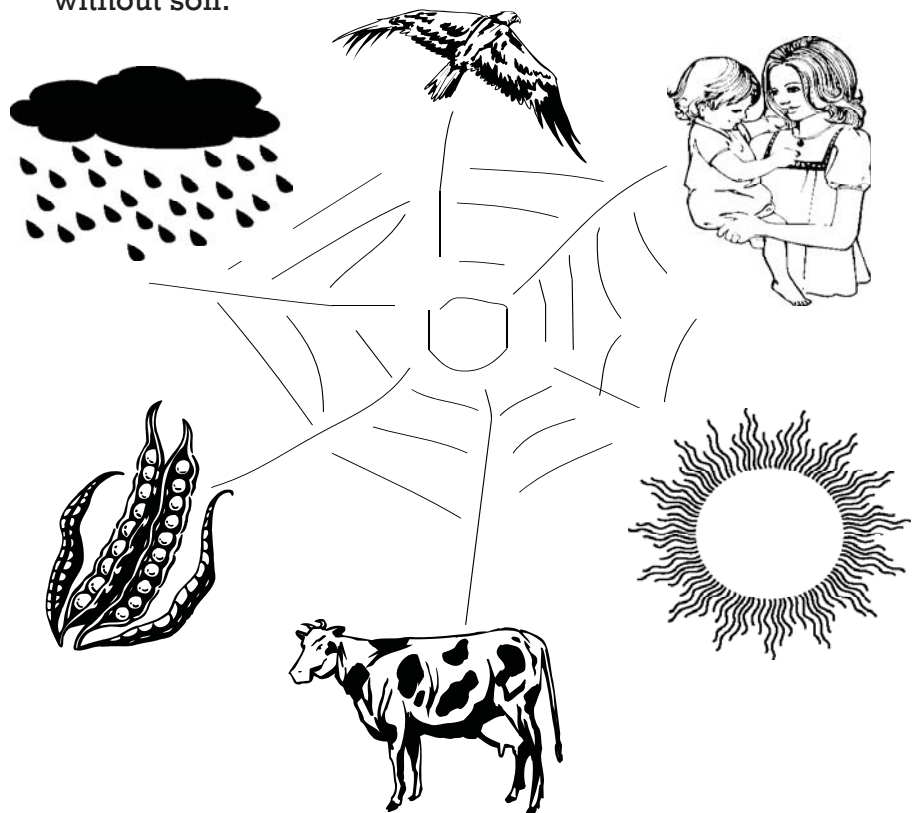
1. Working in groups or as individuals, each group of students should answer the questions, What do you think soil means to a _____? (see page 4).
2. Discuss the answers.

Discussion Questions:

- What can you conclude about the role of soil in your life?
- Whose perspective is closest to yours when you look at the soil? Why?
- What would life be like without soil?

Question for Investigation & Assessment:

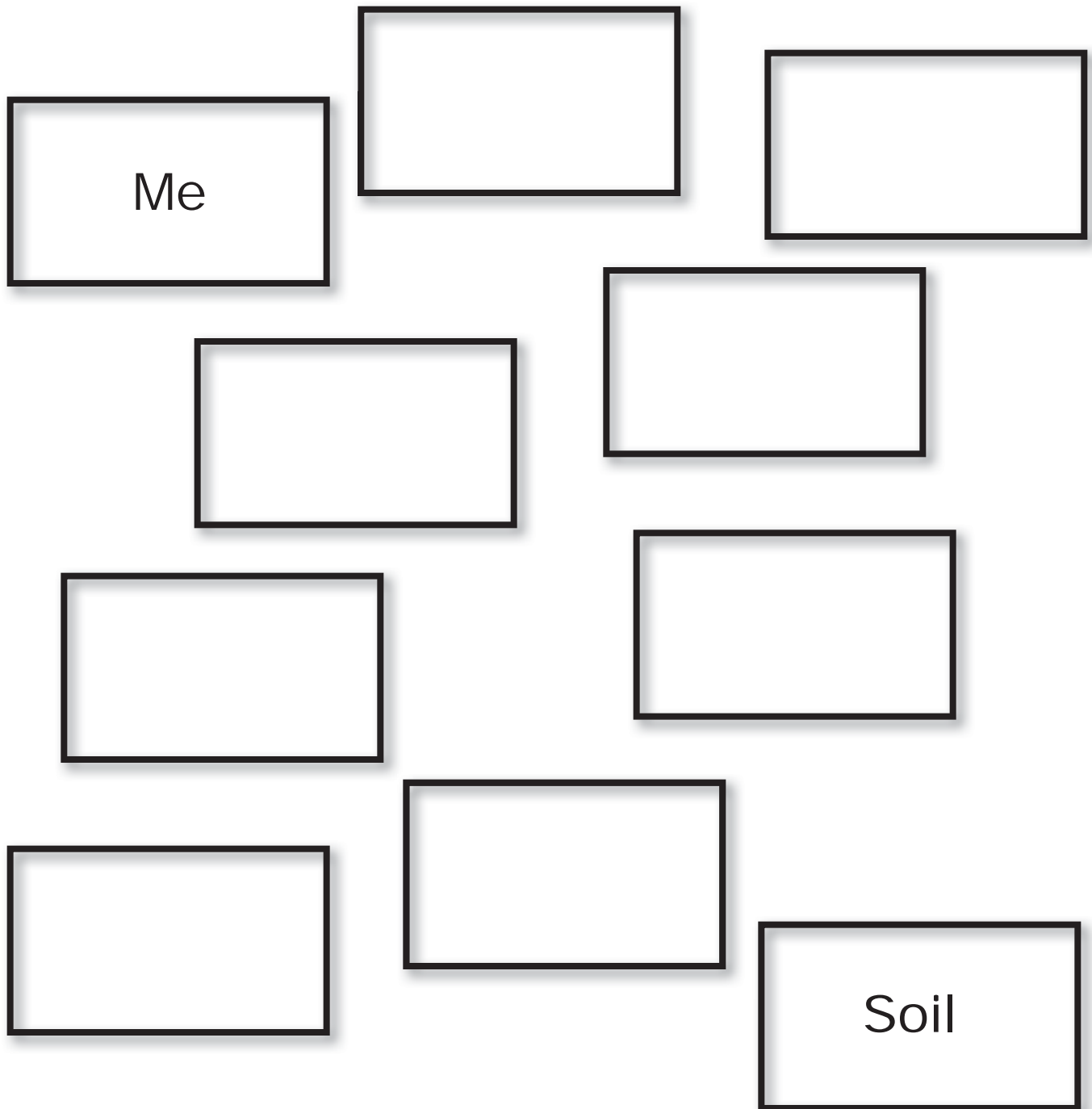
- Have the students write a story about what life would be like without soil.
- Have students research alternative methods to grow plants without soil.



My Soil Food Web

Write an item in each box that you use or need everyday. Then with arrows, create a Soil Food Web.

The lines and arrows show the interactions and connections you have to the soil. Add more boxes to your web if you need to connect your 10 items to other things before making the connection to the soil.



What does soil mean to _____?

Soil means something different for each of us.
What do you think soil means to a /an :

- farmer?
- construction worker?
- cow?
- civil engineer?
- geologist?
- antelope?
- earthworm?
- owner of a dry cleaning business?
- wolf?
- bird?
- hydrologist?
- maple tree?
- person (you) ?