

MORE OR LESS

METHOD

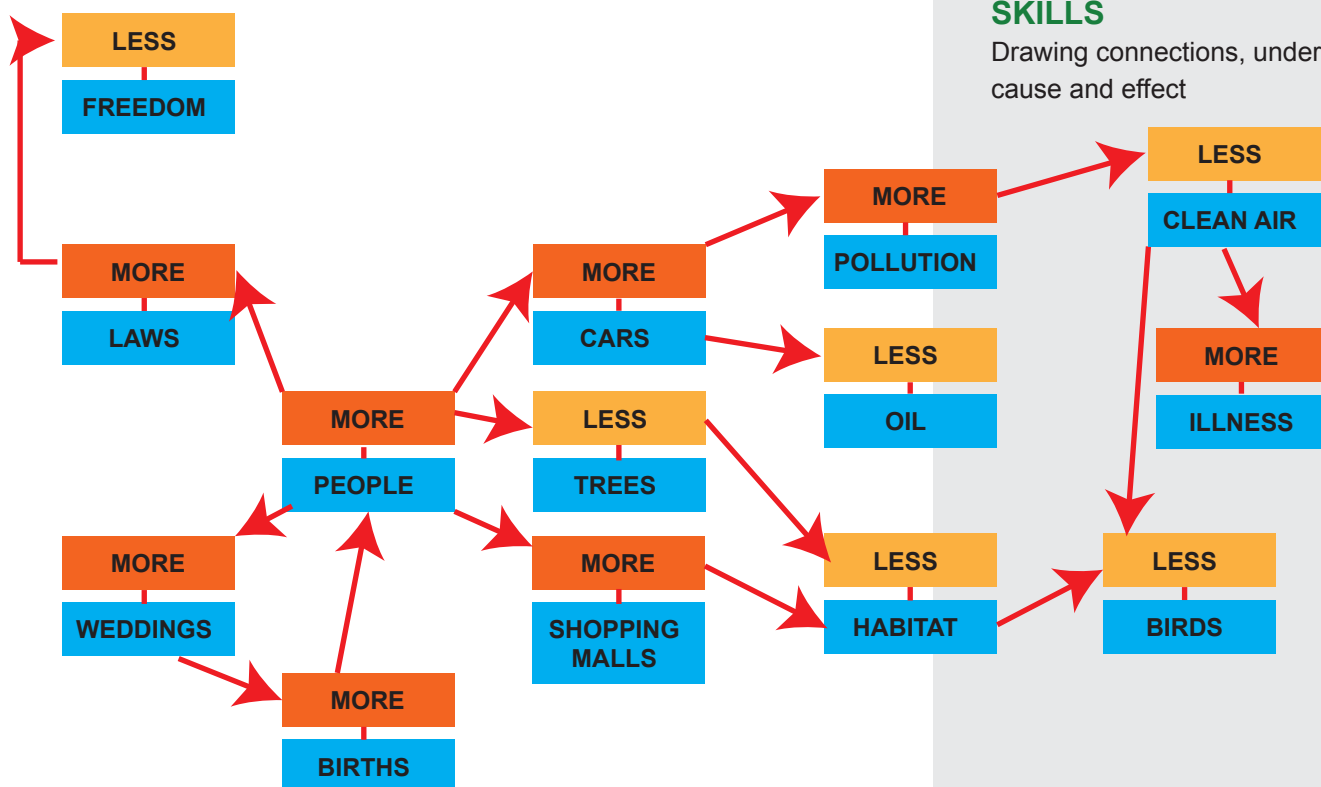
Students construct a word web to show the possible cause and effect relationships of a growing population.

MATERIALS

- More or Less word cards (provided)
- Masking tape
- Construction paper or chart paper (optional)
- Colored markers (optional)
- Magazines (optional)

INTRODUCTION

“Everything is connected to everything else” is the first law of ecology. This is an important concept when making decisions about ourselves, our future, and the resources we depend on. This activity demonstrates the many cause and effect relationships that can be drawn between the human population, resources, and the environment.



CONCEPT

Population growth is closely linked to many environmental and social issues.

GRADE LEVEL

Lower and upper elementary

SUBJECTS

Science, Social Studies, Language Arts

OBJECTIVES

Students will be able to:

- Use critical thinking to determine cause and effect relationships between related phrases.
- Identify some of the many interconnections between the human population, resources, and the environment.

SKILLS

Drawing connections, understanding cause and effect

PROCEDURE

1. Before class, print and cut out the provided More or Less word cards.
2. Randomly distribute the cards so that each student has either a “MORE” or a “LESS” card. Then display the other word cards so that all the students can see them. You may want to lay them out on a table or desk at the front of the room.
3. Begin making a word web by taping the words “MORE PEOPLE” on the board. Ask the students, “If there are more people, what else might we have more of? What might we have less of?”
4. Invite a student to pick a card to make another phrase that would logically follow “MORE PEOPLE,” such as “MORE CARS.” Have the student tape these two words to the board. Use strips of masking tape or draw a line to “connect” the two phrases. Make sure the students understand the difference between having more and needing more. Have them explain the connection to the class.
5. Then invite other students, one by one, to pick word cards to complete logical statements. Example: “MORE CARS” (means) “LESS OIL” (available). See how many phrases can be logically linked to the first phrase. Also encourage students to link their phrase to other phrases. Remind students that their connections can be positive, negative, or neutral.
6. Younger students can draw pictures of the words on blank construction paper cards or can write the words on their own to practice handwriting and spelling. Older students could opt to not use the printed cards, and simply use a large sheet of paper to develop their own written word web with “More People” as the organizing theme (this is best done in small cooperative groups).

DISCUSSION QUESTIONS

1. Ask students if they see any additional connections that can be made. Connect these phrases and discuss how they are related.
2. Point out a few specific connections. Are the relationships as clear-cut as they are stated? For instance, must more factories mean more noise, more pollution, or more jobs? Do more houses always mean less animal habitat?
3. Under what circumstances would the relationships in the web change?

MEASURING LEARNING

Have students reflect on the lesson through either pictures or writing. After choosing which form they will use, students should indicate at least three cause and effect relationships between people, resources, and the environment and should express what it means to them to have more people on the planet.

FOLLOW-UP ACTIVITIES

1. Work together as a class to develop your own word list, and try the activity again.
2. Upper elementary students can create a Glog (short for “graphics blog”) about what it means to have more people on the planet. Glogster.edu is an on-line learning platform where students can express their knowledge through text, photo, video, sound, and other multi-media. They can use the connections that were developed in the class web, or come up with their own connections that portray the many relationships between people, resources, and the environment. When developing their Glog, students can include relevant videos, audio clips, written articles, photos, etc. If students need guidance on where to start their research, they can check out the links on the Student Resources page in the Just for Kids section of this curriculum. Visit <http://edu.glogster.com> to begin creating Glogs.

More

More

More

More

Less

Less

Less

Less

People

Inventions

Births

Pollution

Hospitals

Habitat

Clean Air

Injuries

Money

Illnesses

Food

Land

Garbage

Deaths

Roads

Minerals

Jobs

Noise

Wars

Cars

Birds

Fish

Soil

Oil

Water

Schools

Malls

Laws

Houses

Boats

Gasoline

Weddings

Drought

Shopping

Accidents

Endangered Species

Robberies

Factories

Trees

Freedom