

MORE OR LESS

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

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

Grade Level: Upper elementary

Subjects: Science, language arts, social studies

Skills: Drawing connections, understanding cause-and-effect relationships

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.

ACTIVITY 35

MORE OR LESS

Materials:

Word list
Construction paper
Colored markers
Yarn or masking tape
Bulletin board and pins
Magazines (optional)

Preparation:

Cut construction paper into 3" x 11" strips. Write each word from the Word List on a paper strip with a colored marker. Then print the word “MORE” on enough paper strips to supply half the class. Make “LESS” cards for the other half of the class in the same fashion.

Procedure:

1. 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.
2. Begin making a word web by pinning or taping the words “MORE PEOPLE” on the board. Ask the students, “If there are more people, what else might we have more or less of?”
3. Invite a student to pick a card to make another phrase that would logically follow “MORE PEOPLE,” such as “MORE CARS.” Have the student pin these two words to the bulletin board. Use strips of masking tape or lengths of yarn to “connect” the two phrases. If cards are taped to a chalkboard, draw arrows between them to show cause-and-effect. Make sure the students understand the difference between having more and needing more. Have them explain the connection to the class.
4. Then invite other students, one by one, to pick word cards to complete logical statements. Example: “MORE CARS” (mean) “LESS OIL” (available). See how many phrases can be logically linked to the first phrase. Or see how many phrases can be linked to other phrases.

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Follow-up Activity:

Have students cut pictures from magazines to help illustrate the words, phrases and relationships. Are all 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 wildlife habitat or more human habitat? Under what circumstances would the relationships change? Discuss the web concept in showing that “Everything is connected to everything else.” Develop your own word list and try the activity again.

Word List

People	Births	Deaths	Water	Gasoline
Pollution	Habitat	Jobs	Houses	Factories
Clean Air	Money	Cars	Freedom	Accidents
Illnesses	Land	Oil	Drought	Laws
Inventions	Garbage	Roads	Schools	Weddings
Hospitals	Minerals	Noise	Boats	Robberies
Injuries	Wars	Fish	Trees	Birds
Food	Soil	Endangered Species	Shopping Malls	

Example:

