Title - CROWDING IN AN ECOSYSTEM
By - Judy Schneider
Primary Subject - Science
Secondary Subjects - Science
Grade Level - 4 - 8 (adaptable)
SCIENCE PROJECT OF THE WEEK

CROWDING IN AN ECOSYSTEM

PROBLEM: What happens when a plant population is too dense?

RESEARCH: Look up the word ecosystem in a science textbook.

HYPOTHESIS: What do you think will happen if the plants are too close together? Will there be enough food, water, and sunlight. What else might be in short supply?

MATERIALS:
2 small milk cartons
1 nail
garden soil
water
radish seeds
metric ruler
marker
pie pan
measuring cup

PROCEDURE:
1. Cut off the top of each carton. Punch three small holes (use the nail) into the bottom of each carton.
2. Use the marker to label the cartons "A" and "B".
3. Fill each carton 3/4 full with garden soil. Do not pack in the soil.
4. In carton "A", plant three radish seeds about one centimeter apart. In carton "B", plant 20 radish seeds about 1/2 centimeter apart.
5. Place both cartons in the pie pan. Water each carton with about 1/4 cup of water. Water each carton every 3-4 days. Keep the soil damp, but not soaked.
6. Observe and measure all the plants in each carton after one week and again a week later. Keep a record of the plant growth.

DATA: Make a chart to record the growth of your plants.

QUESTIONS:
1. In which carton were the plants taller?
2. In which carton were the plants fuller?
3. In which carton were the plants more crowded?
4. What might have caused the difference in the way the plants grew?

5. What might happen to the soil when the plant population becomes too dense?
6. Do you think overcrowding might cause similar problems in human populations?
7. What problems can you think of that might happen in an overcrowded human population?

CONCLUSION: This is not optional. You must explain what you learned by doing this activity. Remember that you must answer the question you asked in your original problem statement.

NOTE: BE SURE TO HAVE YOUR PARENT OR GUARDIAN SIGNS YOUR WORK.
PARENTS: YOUR SIGNATURE SHOWS YOUR STUDENT HAS DONE THE WORK.
SCIENCE PROJECT OF THE WEEK

TEACHER SECTION:
POSSIBLE HYPOTHESIS: Students should make some kind of guess about the difference in the way the plants will grow in the two cartons.

POSSIBLE CONCLUSION: Students should discuss the difference in the closeness of the plants, the color, the height, and the strength of the plants.

E-Mail Judy Schneider!