

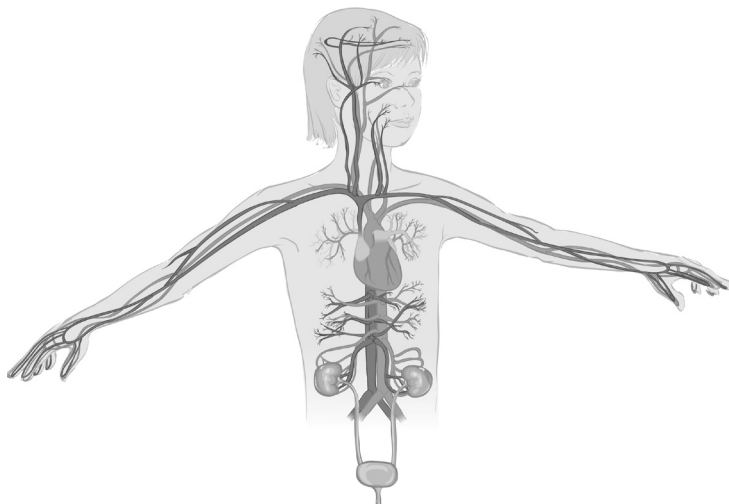
LETTER TO PARENTS

Cut here and paste onto school letterhead before making copies.

SCIENCE NEWS

Dear Parents,

Our class is beginning a new science unit using the **FOSS Living Systems Module**. We will be investigating transport systems in multicellular organisms that provide each cell with food, water, gas exchange, and waste removal. Students will learn about the structures, functions, and interactions of the circulatory, respiratory, digestive, and excretory systems in humans. They will learn about the vascular system in plants (xylem and phloem), and they will compare that system for moving water, minerals, and sugar to the transport system in humans. They will also be introduced to the chemical process of photosynthesis and how sugar is broken down in cells during cellular respiration.



Students will be designing and conducting controlled experiments to investigate some of these systems (water movement in plants and use of sugar by yeast cells). I may be asking you to send small samples of breakfast cereals to school for us to use in an experiment dealing with metabolism of sugar by yeast.

And we will be discussing food in terms of its nutrients—fats, carbohydrates, proteins, and water. You might find as a result of our study that your family’s dinner conversation will actually focus on the meal!

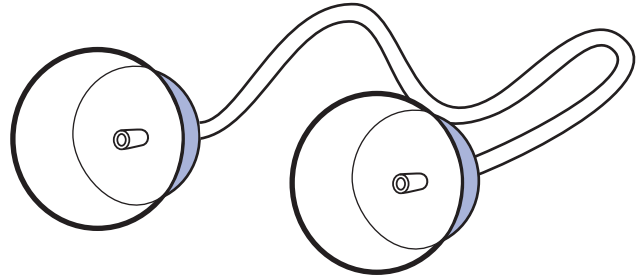
Watch for the home/school connection sheets I will be sending home with your child. These suggest ways for the whole family to investigate interesting aspects of our life science study. In addition, you and your child can visit the FOSS website (www.fossweb.com/ca), where there are instructional activities, interactive simulations, and resources related to the Living Systems Module.

If you have any questions or comments, or have family or cultural traditions involving food that you would like to share with the class, please drop me a note or come in and visit our class. We are looking forward to many weeks of exciting investigations.

HOME/SCHOOL CONNECTION

INVESTIGATION 1: LIVING CELLS

Listen to your body's transport systems—they make sounds. Use a stethoscope to listen, if you have one. You can make a simple listening device with two small plastic cups and a short piece of plastic tubing.



Make a small hole in the bottom of both cups with a nail. Force the tubing into the holes. It should fit very tightly.

Put the mouth of one cup over the thing you want to hear. Put the other cup over your ear. Listen to your heart, lungs, stomach, intestines, your throat swallowing, and your teeth chewing.

1. Everyone gets the hiccups (babies get them a lot). What causes hiccups? What transport system(s) are they related to? And what are some remedies for hiccups?
2. You have felt and heard your own stomach growl. When does it growl? What makes it growl? What transport system is involved?
3. Everyone burps now and then (babies burp a lot). What is going on when you burp? What transport system is involved?
4. What is a sneeze? What transport system is involved?

HOME/SCHOOL CONNECTION

INVESTIGATION 2: VASCULAR PLANTS

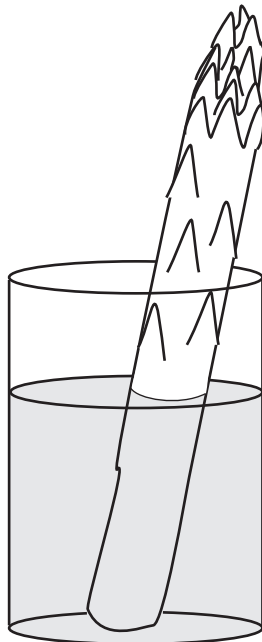
Celery stalks have vascular bundles. The xylem tubes transport water from the roots (base of the stem) to the leaves. This is how the cells in the celery leaves get water and minerals to stay alive.

Do other vegetables transport water? You can use colored water to find out.

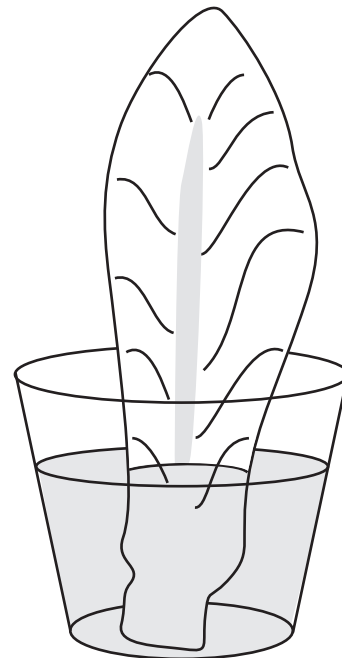
Visit the produce section when you are at the market. Get a few things to test. Try different kinds of cabbage and lettuce, green onions and leeks, asparagus, and other interesting things. Bring the results of your investigations to school to share.



Cabbage



Asparagus



Romain