

LETTER TO FAMILY

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Science News

Dear Family,

Our class is beginning a new science unit using the **FOSS Living Systems Module**. We will be looking at a number of life science concepts from the standpoint of a system—a collection of interacting parts. We will start with ecosystems and describe the feeding relationships in food chains and food webs involving producers (plants and algae), consumers, and decomposers. To investigate the role of decomposers, we will set up redworm habitats and provide organic materials in the form of shredded moist newspaper with a small amount of selected fresh kitchen scraps and leaf litter integrated into the habitat. We will observe the action of the redworms for 8 weeks and analyze the result of their activity at the end of the module.

We will also investigate 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 digestive, circulatory, and respiratory systems in humans. We will build model heart systems and investigate vital capacity of our lungs. Students 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 process of photosynthesis. Students will be designing and conducting controlled experiments to investigate some of these systems (use of sugar by yeast cells) and light by sprouting wheat seeds.

We will also learn about the central nervous system in humans and compare it to other animals. With the focus on systems, we will investigate stimulus/response in human response-time and in animal communication and behavior. We will also be looking at instinctive behavior, such as that exhibited by migrating monarch butterflies.

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), where there are instructional activities, interactive simulations, and resources related to the Living Systems Module.

If you have any questions or comments, please drop me a note or come in and visit our class. We are looking forward to many weeks of exciting investigations.

Sincerely,