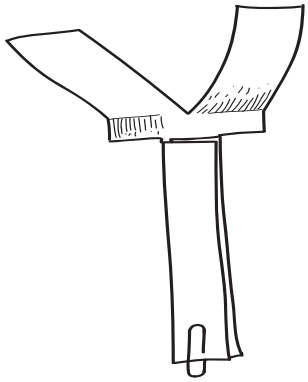
LETTER TO FAMILY

Cut here and paste onto school letterhead before making copies.

Science News

Dear Family,



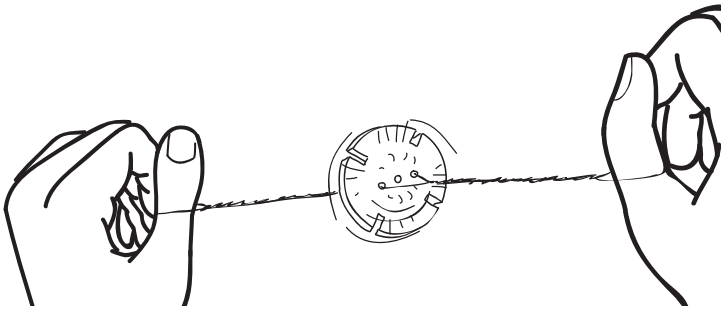
Balance and Motion is the new unit we are studying in science. We will be studying the motion of objects, including vibrations and sound. We will observe and compare how objects balance, spin, and roll, and we will communicate the things we discover, orally and in writing. The processes of observing, communicating, and comparing are important thinking processes that your child will use during our investigation of motion.

We will learn a little bit about the mysterious force of magnetism. We'll discover that the invisible magnetic field can act right through air to interact with other magnetic materials. Our goal is to lay a foundation for more advanced inquiry into the concepts of force and motion as students continue their science studies in the future. And in the process of finding out about balance and motion, we will be exercising the scientific practices that are at the core of the scientific enterprise.

Your child may be interested in trying some things at home. You might want to tie a string between two chairs and see how many paper cups, craft sticks, and other objects you can balance (use clothespins for counterweights). You could make a big mobile by suspending a broomstick on a cord and hanging things from it, or make tops out of shafts and disks. Or make a zoomer as described in the Home/School Connection I'll be sending home in a few weeks. Check your local toy store for tops and other spinners. The possibilities are endless, and your child can be your guide.

We're looking forward to our new unit on balance and motion that will provide lots of learning and lots of fun! You can get more information on this module by going to www.FOSSweb.com.

Sincerely,



HOME/SCHOOL CONNECTION

Investigation 1: Balance

In class, we have learned how to balance all kinds of shapes by adding clothespins, which act as counterweights. Here are some fun movements to explore together and some questions to ask your child that might lead to interesting discussions about balance, weight, and counterbalance.

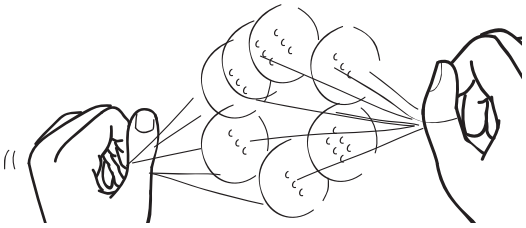
Try this!

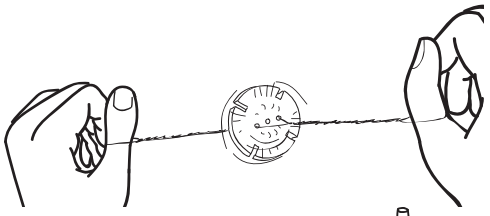
- Compare standing on one foot with your eyes closed and with your eyes open. Which is easier? Why do you think that might be?
- Compare standing on one foot, standing on two feet, and sitting on the floor. Which do you think is the most stable—easiest to maintain balance without falling over? Why do you think that might be so?
- Stand with your heels against a wall. Now bend over to pick up an object on the floor. What happens? Why do you think it happens?
- Try to get up from a chair without moving your hands or leaning. What happens? What do you need to do to get up?

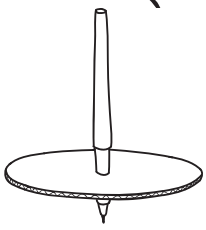
HOME/SCHOOL CONNECTION

Investigation 2: Spinners

Zoomers. Traditional zoomers are made from a button and a piece of string or strong thread. The string is strung through two button holes and tied to make a loop. When you twirl it around to put a twist in the string and pull it tight to unwind, the button will spin.







Top. Cut a 13- or 15-cm (5- or 6-inch) piece of cardboard. Poke a hole in the center big enough for a pencil or felt-tip pen.

Try this!

- Add more cardboard disks to the top.
- Compare zoomers made with a big button and a little one.
- Add a spinning design to a top or zoomer. (The best way to see the spinning design on a zoomer is to change the position of the zoomer. Bring one hand in front of your face and move the other hand away from you. Make the zoomer go fast or slow and watch the design change.)
- Make tops from different materials.
- Try anything you can think of—be curious!

What did you make? What did you try? What happened?

HOME/SCHOOL CONNECTION

Investigation 4: Back and Forth

Make good vibrations. Put together a tinker's band with family and friends. Make as many different kinds of sounds and as many pitches as you can with everyday objects around the house. Try to make a diatonic scale.

do, re, mi, fa, so, la, ti, do

Here is a list of things to try out for the band.

- Bottles, with and without water
- Bowls, glasses, and pitchers
- Tin cans
- Cook pots and fry pans
- Lids for cook pots and fry pans
- Bolts or pieces of pipe hanging from strings
- Pieces of wood
- Strings, wires, or ropes pulled tight

Make a list of the items you used to make each sound.

Play some tunes, either solo or in a combo with friends and family. Turn on the radio or some recorded music and play along. Make a sound recording of your own musical efforts. Bring the recording to class. Have other students listen to the different sounds and record them on a chart.