LETTER TO FAMILY

Cut here and paste onto school letterhead before making copies.

= Science News =

Dear Family,

Our class is beginning a study of air and weather. Students will be looking for evidence that air is matter—that it is something real. Students will explore the properties of air using plastic syringes and tubing. They will observe how air can be captured, how air can be compressed, and how air under pressure can move things around. Students will observe daily weather conditions such as temperature, rainfall, cloud cover, wind speed, and wind direction. They will be recording all this information

on a class calendar and in a science notebook. Students will also observe and record daily changes in the appearance of the Moon over a month. Students will be observing the Moon during the daylight hours and at home during the evening.

You can help your child learn more about weather, too. You might discuss weather reports in the newspaper, on the Internet, or on television. Point out wind vanes if you happen to see one perched on top of a house. If you have an indoor or outdoor thermometer, read and record the temperature at about the same time each day and look for patterns. Or you may want to watch the temperature change over the course of one day. Does it happen that way every day? Weather is an ever-changing story. You can guide your child's scientific inquiry by helping him or her to make observations and by nurturing his or her natural ability to ask questions based on those observations. Don't be surprised if you end up with a list of questions much longer than the initial observations.

If you have any questions or comments, call or come in and visit our class. You can get more information on this module by going to www.FOSSweb.com.

Sincerely,





FOSS Air and Weather Module © The Regents of the University of California Can be duplicated for classroom or workshop use.

Investigation 1: Exploring Air

Look around your home and see if you can find a toy that uses air to make it work. If you can't find one, see if you can invent one.

Draw a picture of the toy you found or the one you invented.

Explain how it works.

FOSS Air and Weather Module © The Regents of the University of California Can be duplicated for classroom or workshop use.

Investigation 1: Exploring Air No. 4—Teacher Master

Investigation 2: Observing Weather

Make a cloud window with your child, using these directions.

Materials: Construction paper, scissors, tape

Procedure

1. Cut a 9" \times 12" sheet of dark construction paper (a shopping bag will do) into four equal strips (2 1/4" \times 12").



2. Form a rectangle with the four strips, overlapping one edge 1/4" over another. Tape it together.



3. Tape the cloud window to a glass window in your house. It will provide a reference point to help your child detect movement of the clouds in the sky.

Investigation 3: Wind Explorations

Make a whirligig with your child, using these directions.

Materials: Scissors, tape, and a piece of string

Procedure

- 1. Cut out the whirligig along the spiral line.
- 2. Tape a piece of string to the *X* in the middle of the whirligig.
- 3. Hang the whirligig by the string and blow on it. What does it do?
- 4. Use the whirligig to find places where the air is moving. Try outside, by a window, or in front of a fan. Where does it move the fastest?



Investigation 4: Looking for Change

Families: Read this story with your child. Then have him or her draw a picture of Harry in his new clothes.

Harry was always wearing the wrong clothes. When he put on his raincoat, it was warm and sunny outside. When he wore his shorts, the outside temperature was cold. When he decided not to take a jacket with him to school, the wind blew hard.

So Harry decided he wasn't going to go outside. Soon Harry became very, very lonely. All of Harry's friends wanted to play outside. Harry was left alone, wearing the wrong clothes for the weather.

Then Harry got a grand idea! He would design a set of clothes that he could wear outside at any time and in any weather. If it were sunny and warm, Harry could wear his new clothes. If it were windy and rainy, Harry could wear his new clothes. Even if it were snowing, Harry could wear his new clothes!

So, Harry set about designing his new wardrobe.

Finish the story and draw a picture of Harry's all-weather wardrobe. Use the back side of this page.

- What kind of clothing would Harry need?
- What kinds of weather would Harry need to think about?
- How can Harry wear the same thing in all kinds of weather?