

# A STEM in the Park

## Take Home Activity



Science, Technology, Engineering, and Mathematics

# Investigating Home Insulation and Temperature

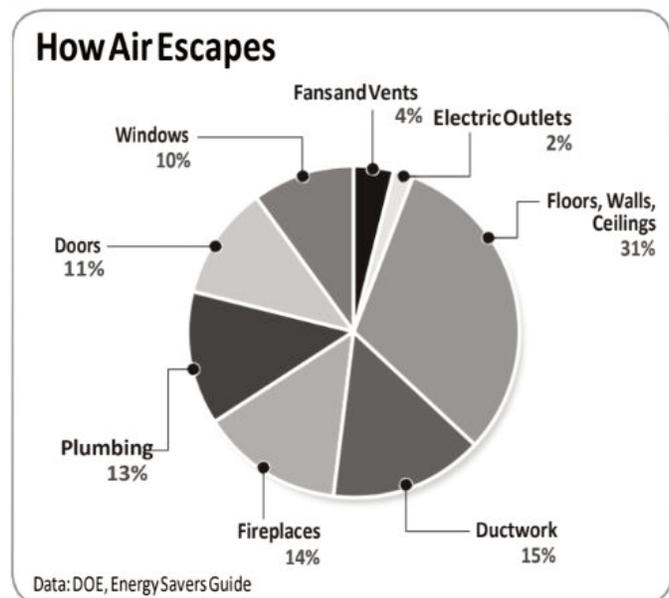
### What You Need

- Weatherstripping
- Door sweep and draft stoppers
- Thermostat Temperature Guide (see back)

### What To Do

1. Open your outside doors and check the condition of the weather stripping between the doors and the door-frame.  
none - 0 points      poor - 2 points      fair - 4 points      good - 6 points
2. Using the graphic below, "How Air Escapes," decide with your family the five areas of your home you will check for air leaks.

- I.
- II.
- III.
- IV.
- V.



*Continued on back*

### **What To Do cont.**

3. With the help of an adult, record the thermostat settings for your home:

Cooling Season:	HeatingSeason:
< 74° 0 points	>74° 0 points
74°-75° 2 points	72°-74° 2 points
76°-77° 4 points	69°-71° 4 points
> 77° 6 points	< 69° 6 points

4. Using the Thermostat Temperature Guide, calculate the percent of energy saved or wasted at this temperature setting.

%energy saved \_\_\_\_\_ OR %energy wasted \_\_\_\_\_

5. Decide with your family two ways you can save energy on heating and cooling.

#### **Action:**

1. With an adult, install the weatherstripping (and door sweep and draft stoppers, if available).
2. Discuss changing the thermostat to the recommended settings of 68°F in the winter and 78°F in the summer.

### **The Science**

Heating and cooling systems use more energy than any other systems in the home. Students will learn how to use heating and cooling systems efficiently. Students will be able to explain the importance of properly regulating temperature when considering efficiency and conservation.

***This activity is brought to you by Bowling Green Energy Project***

