

SCIENCE/SOCIAL STUDIES PLANNER FOR APRIL 20-24

Monday	Tuesday	Wednesday	Thursday	Friday
<p>Construct a “Draft-o-Meter.”</p> <p>Rate different doors and windows in your house.</p> <p>Write down something you learned about your home and something that surprised you.</p>	<p>Explore The <i>ClimateKids</i> website.</p> <p>As you explore, think of connections you can make to the learning we did about the Bengal Tiger reserve and about erosion.</p> <p>https://climatekids.nasa.gov/</p> <p>Complete the Home Survey</p>	<p>How Many Years to Disappear?</p> <p>Complete the landfill activity by guessing how long it takes those objects to decompose when buried in a landfill. When you’ve finished guessing check your answers at the bottom. Which fact surprised you the most? Why is being aware of these timespans important?</p>	<p>Complete the “Energy in Your Room” activity as suggested.</p>	<p>Make a “Twig Book.”</p> <p>Have fun making a twig book! Now, what will you use it for?</p>

Draft-O-Meter

Grades: K-4, 5-8

Topic: Energy Efficiency and Conservation

Author: Linda Gregory

Owner: Alliance to Save Energy

DRAFT-O-METER

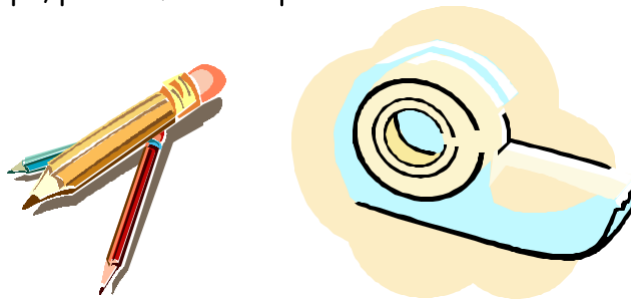
Modified from: Linda Gregory Urbita Elementary School, San Bernardino, CA
Adapted from the Tennessee Valley Authority

Objective: Students will:

1. Learn an easy technique to measure the presence of drafts in their homes and classrooms.
2. Rate their home's drafts by severity.

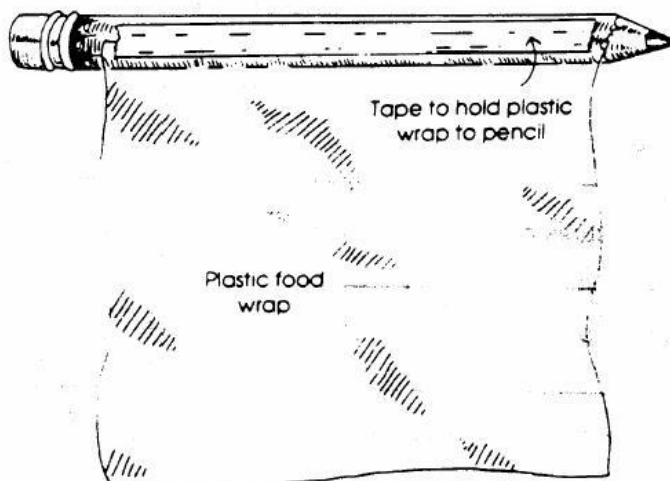
A **draft of air** means air that is moving inside an enclosed space. An example of a draft would be cold winter air coming into your home from beneath the door or through the window. It could also be hot air entering your home in the same ways during the summer. Drafts are a sign of inefficient energy use because a home's heating and cooling systems are forced to work harder than they should.

Materials: Pencil, tape, plastic food wrap



PROCEDURE

1. Cut a 12cm by 25cm strip of plastic wrap.
2. Tape the shorter edge of the wrap to a pencil and let the rest hang freely.
3. Blow plastic wrap gently and note how sensitive the wrap is to air movement. Drafts mean that air is leaking into or out of a building. This means either a loss of heat in winter or a loss of air conditioning in summer.



HOME DRAFT CHECKLIST

Check each of the locations where drafts are likely. Where your draft-o-meter detects drafts, rate them by checking the right column. Rate drafts as 1 (strong), 2 (moderate), or 3 (weak). If there is no draft, check the "no draft" column. If your home does not have a listed location, just draw a line through that location.

DRAFT LOCATIONS	NO DRAFT	DRAFT RATINGS		
		1	2	3
1. Exhaust fans in bathrooms and kitchens				
2. Dampers in fireplaces and woodstoves				
3. Doors				
4. Windows				
5. Light fixtures attached to walls and ceilings				
6. Attic door				
7. Window air-conditioning units left in place in winter				
8. Mail chutes or slots in walls or doors				
9. Cracks in the foundation of the house or holes where pipes pass through				
10. Where porches and steps meet the house				

What did you learn about your home?

Why do you think finding drafts is important for energy conservation?

Home Survey

1. What kind of energy heats our home in winter?
2. What kind of energy cools our home in summer?
3. What kind of energy cooks our food?
4. What kind of energy heats our water?
5. What kind of energy runs our car?
6. What kind of energy powers our lights and our appliances?
7. What kinds of things do we recycle?
8. How do we waste energy?
9. How do we save energy?
10. What things can we do to save more energy?

PRIMARYACTIVITY: How Many Years to Disappear?

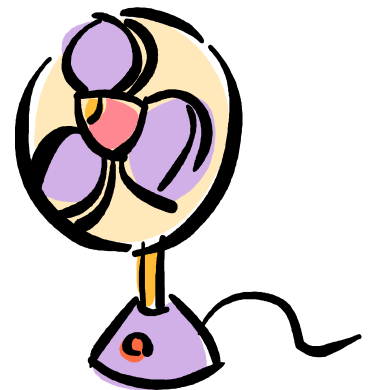
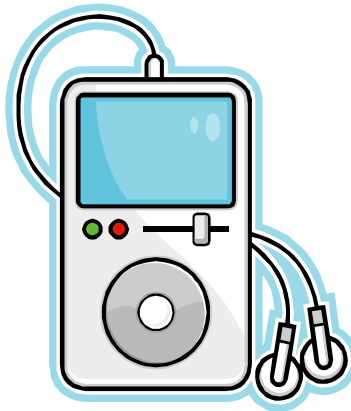
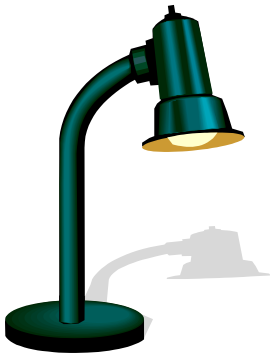
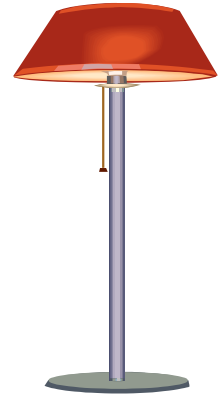
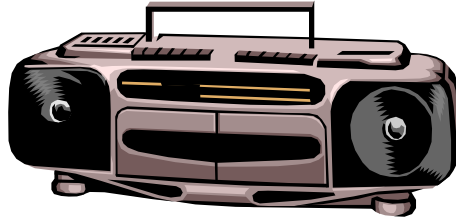
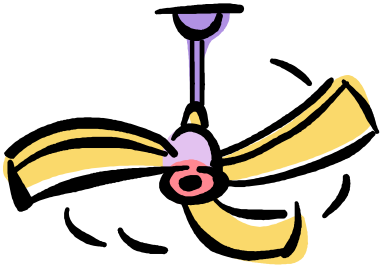
Directions: Use this as an introduction to a unit on recycling/solid waste disposal. Students will be surprised at how long it takes for most buried trash to disappear. (Answers are at bottom of page.)

How Many Years To Disappear?					
If you bury these objects, mark how long you think it will take for them to disappear.					
OBJECT	0 - 1 year	1 - 100 years	100 - 500 years	500 - 1,000 years	1,000 - 1,000,000 years
Disposable Diaper					
Cotton Sock					
Styrofoam Cup					
Glass Bottle					
Leather Belt					
Wooden Block					
Banana Peel					
Paper Box					
Plastic Bottle					
Aluminum Can					

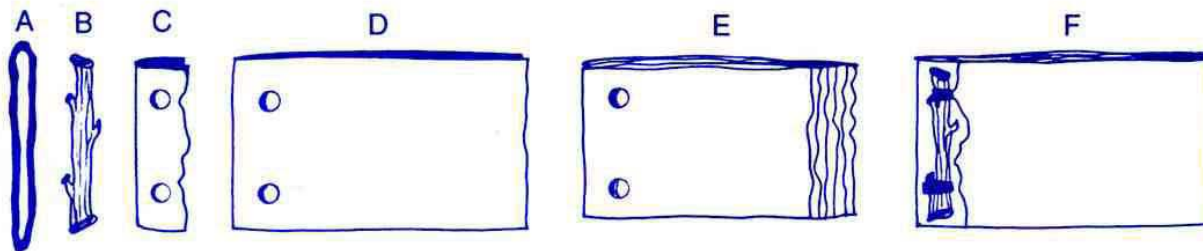
Answers: Diaper: 500-600 years, Cotton Sock: 5-6 months, Styrofoam Cup: 1 million years or more, Glass Bottle: 1 million years or more, Leather Belt: 40-50 years, Wooden Block: 10-20 years, Banana Peel: 3-4 weeks, Paper Box: 1-2 months, Plastic Bottle: 1 million years or more, Aluminum Can: 200-500 years.

Primary Activity: Energy and Machines

Draw a picture of your room at home. Cut out pictures of all the things in your room that use energy and paste them on your picture. Make a list of ways you can save energy in your room.



"Twig" Booklet

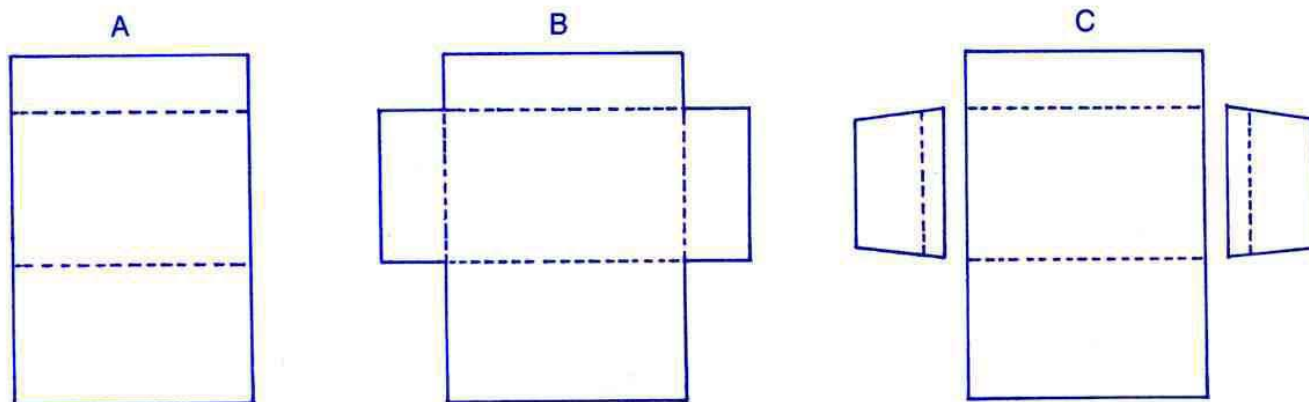


The "twig" booklet is a generic name used to describe any booklet made from used paper and bound in a similar way. Plastic tubing, lengths of twine, pieces of wire, a tightly rolled piece of paper, cardboard strips, etc. can take the place of the twig. This type of booklet can be made in any size, and can be bound at the side or top. String, yarn, etc., can be substituted for the rubber band.

Components: A. rubber band, B. twig, pencil, etc., C. end piece, D. cover, E. pages, F. assembled booklet.

ASSEMBLY: Punch corresponding holes in C, D, and E. Insert pages (E) into cover (D) and slide end piece (C) over left end of cover. Insert ends of rubber band through holes from bottom of cover. Slide twig into loops at each end of rubber band. If rubber band is too long, it can be twisted a few times on the bottom of the booklet to take up slack.

Self-mailing Sleeve



The self-mailing sleeve is a quick and simple way to create a substitute for the common envelope and reuse paper, and can be made in any size or shape. Sleeves can be open-ended (A), contain side flaps as an integral part of the sleeve (B), or side flaps can be added to an open-ended sleeve (C). A letter or note can be written on the inside of any of these sleeves or booklets. Accordion-fold stationery, loose pages, photographs, etc., can be placed inside.

CONSTRUCTION: Sleeves A, B, and C are rectangular pieces of used paper, approximately 8 1/2" x 11". The bottom is folded up to within an inch or so of the top, and the top section is folded down to become a glue flap. The side flaps on sleeves B and C are folded inward to hold loose items securely inside.



King County

Department of
Natural Resources and Parks
Solid Waste Division