



Science Lessons Letter K



Kazoo

Make a Kazoo and Learn About Vibration

Use a pencil or scissors to poke a hole about $1 \frac{1}{2}$ inches from the end of a toilet tissue tube. Use markers or crayons to decorate the tube. Wrap a circle of wax paper around end of tube. Use a rubber band to secure. Make tooting noises. Listen to the wax paper vibrate to make music.

Kaleidoscope

Make a Kaleidoscope to Stimulate the Sense of Sight

Decorate a toilet tissue tube with markers or crayons. Cut small pieces of colored tissue paper. Place in a in a baggie. Seal the bag leaving air in it. Secure the bag to the end of the tube with a rubber band. Hold kaleidoscope up to the light and turn slowly. Watch the different effects.

Ketchup

Floating Ketchup

Remove labels from a 2-liter bottle and fill it all the way to the top with water. Add a ketchup pack (from a restaurant) to the bottle. Screw on the cap. Squeeze the bottle hard. The ketchup will sink. Release your hand. The ketchup will float to the top. Repeat over and over. This experiment is all about buoyancy and density. Buoyancy describes whether objects float or sink. There is a little bubble inside of the ketchup packet. As we know bubbles float, and the bubble in the ketchup sometimes keeps the heavy packet from sinking. When you squeeze the bottle hard

enough, you put pressure on the packet. That causes the bubble to get smaller and the entire packet to become MORE DENSE than the water around it and the packet sinks. When you release the pressure, the bubble expands, making the packet less dense (and more buoyant) and, alas, it floats back up.

Hibernation

About Hibernation

Letter K typically arrives the first week of November. We are into Fall and headed for Winter. Please use the following links full of ideas to introduce the concept of Hibernation.

Background Information and Activities:

<http://www.brainpopjr.com/science/animals/hibernation/grownups.weml>

A Time To Sleep

More background, plus several interesting experiments:

<http://www2.scholastic.com/browse/article.jsp?id=3921>

The Mitten by Jan Brett

This story lends itself to animals hibernating. The link has the mitten and the animals for the children to make:

http://www.janbrett.com/put_the_animals_in_the_mitten.htm

Which Animals Hibernate?

This link contains a list of all animals that hibernate:

<http://www.silkysteps.com/forum/showthread.php?t=1581>

Hibernation Blubber Experiment

Here's a way to demonstrate how fat helps to insulate animals (like bears and penguins) during the winter. Place a layer of shortening (Crisco?) into a baggie, then slip that baggie into another one. For the experiment, children place their bare hand into ice, then compare how cold that feels to slipping their hand into the water wearing the baggies (they slip their hand into the baggie like a glove -- between the two baggies -- they don't touch

the shortening). They get to feel how cold it is without the "fat" and then they feel how much warmer it feels with the "fat."

Take Home an Animal to Hibernate

After learning about chipmunks, let the students make one. Use the following link for a picture to cut and color:

<http://www.enchantedlearning.com/subjects/mammals/rodent/Chipmunkprintout.shtml>

Get a grocery store to donate little plastic boxes (from the deli or bakery). Color the boxes with brown markers and fill with straw. Add the chipmunk. Now the student can take their chipmunk home and hide them in their closet or under their bed to hibernate.

Fingerplays

Time for Sleeping

Now, its time for sleeping
The bears go in their caves
It keeps them warm and cozy
Time for lazy days
When the snow is gone & the sun comes out to play
The bears will wake up from their sleep
and then go on to play.

Little Bear

Are you sleeping
Are you sleeping little bear
You will sleep all winter
Through the cold, cold winter, little bear
Are you sleeping, are you sleeping, little bear
You will wake in springtime, in the warm, warm springtime, little bear, little bear