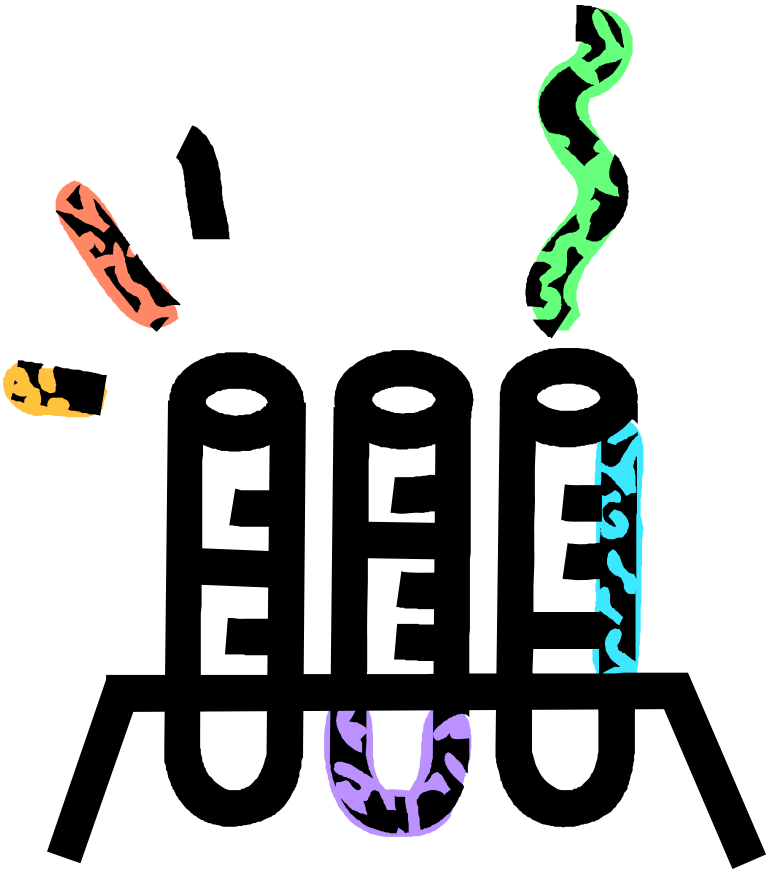


Wacky World of Edible Science

Presented by:
Kathy Booher
Extension Educator, 4-H Youth Development
Ottawa County

Jill Stechschulte
Extension Educator, 4-H Youth Development
Fulton County

IS IT IN THERE?

Is the mineral Iron in your diet?
Read the food guide label on Multi-Grain Cheerios.
It "says" it provides 100% of needed daily iron, but is it really in there?

Let's try this experiment and see.

1. Take 2 cups of Multi-Grain Cheerios in a double bagged zipper bag.
2. Smash gently with a hammer until a fine powder.
   Pour powdered Cheerios into a 2 quart bowl.
3. Add 3 cups water.
4. Stir with a fork until blended.
5. Stir with a plastic coated magnet for 30 seconds more or less.
6. Pull out the magnet. See iron filings on magnet.
7. Wipe on a white paper towel.
8. Use a magnet to observe the iron filings.

RAINBOW CREATION

Make a rainbow you can eat!

What You Need ♦adult help

- Stove, refrigerator
- One small box each of red, blue, and yellow gelatin dessert mix
- Three mixing bowls
- Measuring cup
- Water
- Three spoons
- Large, sealable, plastic bag
- Masking tape

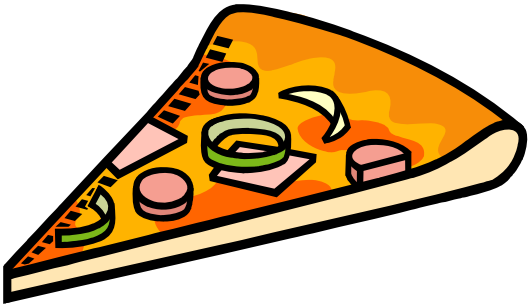
What You Do

1. Follow directions on the boxes to make the gelatin mixes in separate bowls to the point where the gelatin is ready to chill.
2. While chilling the mixtures for 45-50 minutes, stir each a few times with a clean spoon.
3. When the gelatin is partially set, spoon each color into the plastic bag to make three separate stripes, with yellow in the middle. Smooth all the air out of the bag, then seal it. Tape over the seal.
4. Squish neighboring colors of gelatin together.
   What new colors appear?_____
   Where do they appear?_____
   Which color of the rainbow is missing?_____Why?

☺ Gobble up! Squeeze the gelatin out of the bag and into a bowl.
Do the new colors have new flavors?

Source: Gobble Up Science

PIZZA PEOPLE



Where does food go after you swallow it?
How do nutrients get around your body?

What You Need ♦adult help

- Prepared pizza dough
- Pizza toppings: sauce, cheese, sausage, pepperoni, onions, etc.
- Large gingerbread man cookie cutter
- Baking pan
- Oven

What You Do

1. Preheat oven as directed for the pizza dough.
2. Use the cookie cutter to cut people shapes out of the dough (or shape them by hand). Place them on the pan.
3. Use various toppings to "draw" in the parts of the digestive system on some of the pizza people and the circulatory system on others. For example, use sausage for the stomach, pepperoni for the liver, pieces of shredded cheese for the esophagus, and sliced strips of onion for the intestines.
4. Bake as directed.

☺As you gobble up your pizza, call out the part of the body you're eating.

Source: Gobble Up Science

MELT IN YOUR MOUTH

Did you know that your mouth is like a chemistry laboratory?

What you Need

- Miniature marshmallows
- Chocolate chips
- Nuts
- Clock with a second hand

What You Do

1. Place one miniature marshmallow on your tongue. Let it sit there. Watch the clock. Does the marshmallow "melt"? How long does it take for it to be ready to swallow? Swallow and record your findings.
2. Repeat Step 1 with the chocolate and the nuts. Record your results.
3. Do Steps 1 and 2 again, but this time move the food around with your tongue. Don't chew! Time how long it takes for the food to be ready to swallow. Record your results.
4. Repeat the process once more, but this time, chew the food. Record your results.

Which food do you think would be the easiest to digest?_____

Which food do you think would require the most work to digest?_____

★ *During digestion, both physical and chemical changes occur in food. Chewing chops food into smaller pieces. That's a physical change. Saliva contains a chemical called an enzyme that reacts with and breaks down starch in foods. This is a chemical change.*

Source: Gobble Up Science

MOUNT SANDWICH

One way mountains are made is by pushing up the earth from inside.

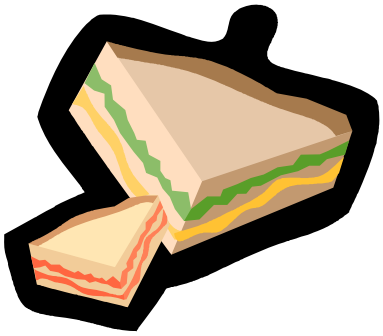
What You Need

- Three slices of bread
- Peanut butter or cream cheese
- Jam
- Knife

What You Do

1. Spread peanut butter or cream cheese on one slice of bread. Put a second slice on top. Cover that with your favorite jam. Put a third slice on top. Don't cut your sandwich.
2. Pick the sandwich up with both hands, one on either side, with your fingers on the bottom and your thumbs on top. Make a mountain by pushing up the middle with your fingers. Now make a valley by pushing down in the middle with your thumbs. What happened to the bread in each case?
3. To make a mountain with a fault in it, push your sandwich up in the middle as in step 2. Lay one side of the mountain down onto the bread. You have created a fault. An earthquake could happen here.
4. Cut your sandwich in half to make two rectangles. Hold the two halves so they touch. Slide one half up and one half down. Then slide the halves back and forth. Earth's crust moves along faults in both these ways. When the movement is very sudden, there is an earthquake.

☺ Gobble up your mountain of a sandwich!



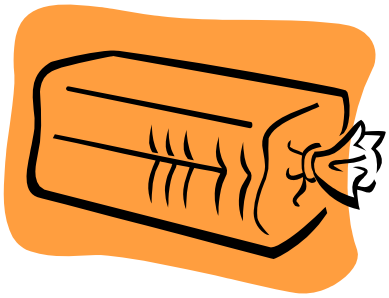
Source: Gobble Up Science

PRESSED ROCKS

Find a rock that has layers. It is called a sedimentary rock.

What You Need ♦adult help

- One slice of soft white or wheat bread
- One square cheese slice (from packaged sandwich slices)
- Butter
- Ruler
- Knife and cutting board
- Stove and frying pan

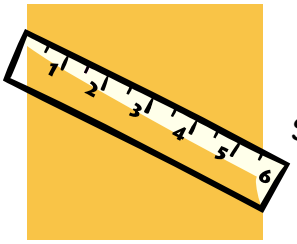


What You Do

1. Cut the crusts off the bread. Cut each slice into four equal pieces. Cut the cheese slice into quarters. Pile up four pieces of bread, one on top of another. Put a piece of cheese in between each piece of bread. (You'll have one piece of cheese left over.)
2. Measure the height of the sandwich and record the measurement. Height:_____
3. With the palm of your hand, press down on the sandwich for a minute and then let go. Measure and record its height. Height after pressing:_____
4. Put a pat of butter in the frying pan and grill your cheese sandwich.

☺ Gobble up!

☞In Step 3, you made a sedimentary, or layered, rock.
Sedimentary rock is made by pressure.
Heat turns it into another kind of rock, called metamorphic.
Think about how your "rock" changed in Step 4.



Source: Gobble Up Science

FEASTING ON FOSSILS

When animals and plants die and get covered in layers of dirt, they leave marks in the rocks that are formed over time. These marks are called fossils.

What You Need

- Graham crackers
- Large, sealable plastic bag
- Clear glass pie plate (or clear glass baking dish)
- Large spoon
- "fossils": animal crackers, gummy dinosaurs, raisins, nuts, small pretzels, etc.
- Bowl of prepared pudding
- Whipped topping
- Refrigerator

What You Do

1. Put the graham crackers in the bag. Crush them by pounding with your fist.
2. On the bottom of the pi plate, put a layer of cracker crumbs. Sprinkle a few fossils around. Spoon on a layer of pudding and add a few more fossils. Then spread a layer of whipped topping and add more fossils.
3. Repeat, adding at least one more layer of cracker crumbs, pudding, and topping. Don't forget to add a few more fossils between each layer. Refrigerate for one or more hours.

   Look at your layers from the side. How many layers did you make?_____

☺ Search for fossils as you gobble up the pudding. How many can you find?

Source: Gobble Up Science

EDIBLE GLACIER

What You Need

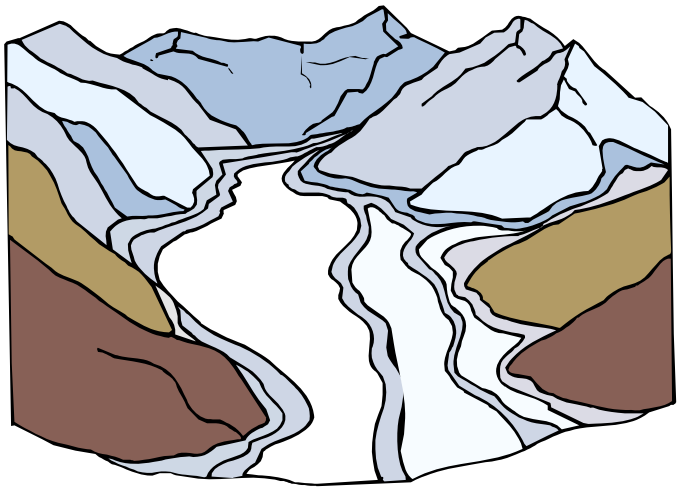
- 6 oz. package of blueberry flavored gelatin
- 1 box of Oreo Cookie Crumbs
- 1 carton of Cool Whip
- 9" x 13" pan

What You Do

1. Make the blueberry flavored gelatin following package directions.
2. Pour into the 9" x 13" pan.
3. Put in refrigerator until solid.
4. Mix $\frac{1}{2}$ of the box of Oreo Cookie Crumbs with the Cool Whip and spread over the set gelatin.

A glacier is born!

The blueberry flavored gelatin is the icy blue center of the glacier. The Oreo Cookie and Cool Whip mix is the silty snow on top. Glaciers are made up of fallen snow that, over many years, compresses into large, thickened ice masses. Glaciers form when snow remains in one location long enough to transform into ice. What makes glaciers unique is their ability to move. Due to sheer mass, glaciers flow like very slow rivers.



RESOURCES

Books

Johmann, Carol A. & Rieth, Elizabeth J. (1996). Gobble Up Science. Creative Teaching Press, Inc.

Additional Resources

Books

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