How to Make Your 200Merang

You can print out your ZOOMerang and make it into a little booklet.

Here's how:

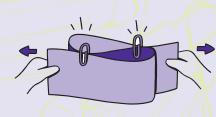
- Print all the ZOOMerang pages.
- Cut out each page along the dotted lines.
- Tape pages I—6 together from end to end so that you have a long row.
- Tape pages A-F together to make a second long row.
- Lay one row face down on a table and put some glue on the back of the pages.
- Place the second row on top of the first row. The printed part of the second row should face you.
- Smooth out the glue with your hand.
- Let it dry and then fold your ZOOMerang where the pages join together.

What You Need

- scissors
- tape
- glue



Here's a way to link paper clips without touching them!



ZSAphenom

What You Need

- I strip of paper
- 2–4 paper clips

Curve one end of the paper toward you and fasten it with a paper clip. Curve the other end of the paper in the opposite direction and fasten it with a paper clip. Pull the ends of the paper in opposite directions and ... ta da!

Try to make 3 or 4 paper clips link.

What other tricks do you know? Send in your ideas to the ZOOM Web site at pbskids.org/zoom

Sent in by Kelly S. of Arnold, MO TMI© 2002 WGBH Educational Foundation. All rights reserved. ZOOM and the ZOOM words and related indicia are trademarks of the WGBH Educational Foundation. Used with permission.

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All submissions become the property of ZOOM and will be eligible for inclusion in all ZOOMmedia. This means that we can share your ideas with other ZOOMers on TV, the Web, in print materials, and in other media. So, send it to ZOOM. Thanks!

Illustrations: Stephen Schudlich Photos: Mark Ostow



#202 0011031

Get a straw and make some music!

First, bite down on one end of the straw to **make it flat**. Then cut the flattened end of the straw to **make a V shape**. Open up the flattened part of the straw a little. Then put the V in your mouth and **blow**. This might take some practice.

What happens if you make your straw kazoo a little shorter? Cut it, and then blow to check it out.

Think of another way to change the sound of your kazoo. Find out what happens when you poke holes in your kazoo. Change one thing—that's the variable. Predict what you think will happen, test it out, and then tell us about it by writing to ZOOM, Box 350, Boston, MA 02134 or pbskids.org/zoom

Sent in by Sarah and Jonathan S. of Jackson, MI

What You Need

- plastic drinking straws
- scissors



Science Scoop

Sounds are made by vibrations.

When an object vibrates (or moves back and forth), it makes the air around it vibrate. When the air vibrates fast enough, you may hear this movement as sound. When you cut the straw, you change the length of the column of air inside the straw; when this different length of air vibrates, you hear a different sound. Does the sound get higher or lower as the straw gets shorter?

MPJ



Party Food Having a party? Invite your friends over to sample these are over to sample these super snacks!

Pigs in a Blanket

What You Need • hot dogs • crescent roll dough

• cheese • ungreased cookie sheet

Preheat your oven to 375 degrees. Be sure to ask an adult for **permission** to use the oven. **Slice** a hot dog down the middle without cutting all the way through. Ask an adult for help with the knife. Put a slice of cheese into the slit in the hot dog. **Separate** the crescent roll dough into triangles. Wrap the hot dog in a section of the dough. Repeat with the rest of your hot dogs and crescent roll dough. Place the wrapped up hot dogs on your cookie sheet. Bake in the oven until the dough is golden brown, about 12 to 15 minutes.

Sent in by Nicholas R. of West Jordan, UT

Cranberry Lemon Punch

What You Need • I can frozen cranberry juice concentrate • I can frozen lemonade concentrate • | liter lemon lime soda • | liter seltzer water • punch bowl

- some frozen raspberries (optional)

Let the cranberry juice concentrate and lemonade concentrate thaw. Then pour all of the ingredients into a punch bowl. Add some frozen raspberries for decoration.

You can also make ice cubes out of juice to keep your punch

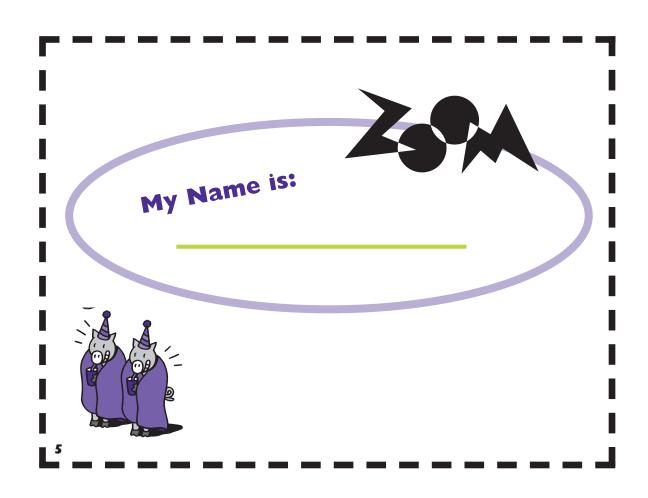
cold and add more flavor and color! What other fun recipes do you know? Send your ideas to

ZOOM, Box 350, Boston, MA 02134 or pbskids.org/zoom

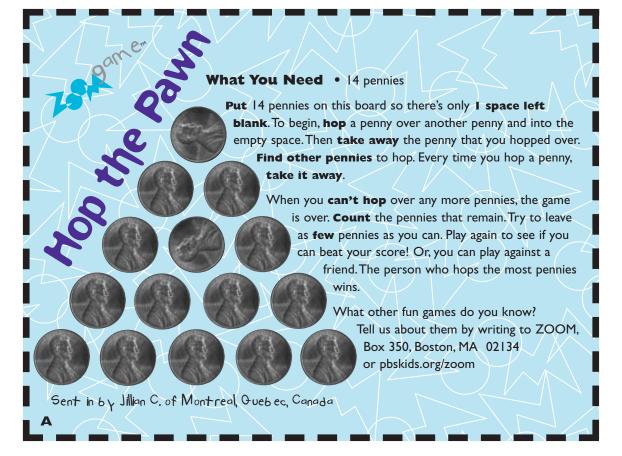
Many thanks to Callie O. of Edgewood, IA



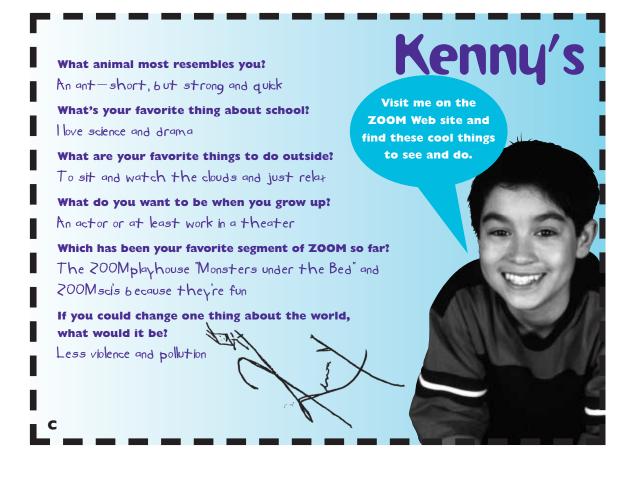
Check out Pbskids.org/zoom/party for more ZOOM party fun, including ideas for games, invitations, and more recipes!

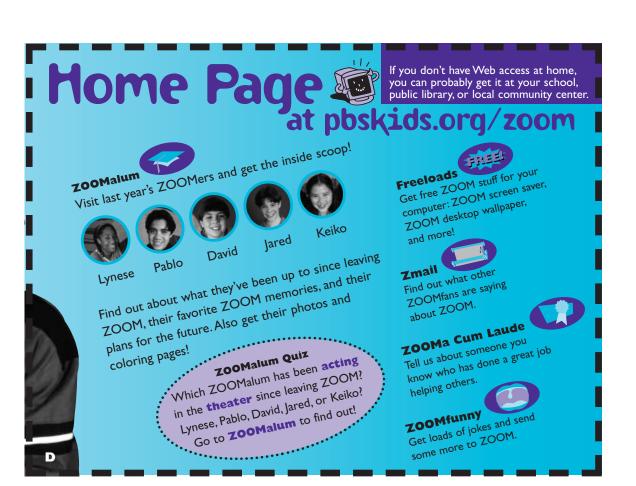












Can Car You don't need a license

totest drive this carl

What You Need

- I empty coffee can I can opener • 2 coffee can lids • I large rubber band
- tape I large bead I pencil
- I paper clip liquid soap



What did the digital watch say to its mother?

Sent in by Jennifer B. of Baudette, MN

Answer: "Look Ma, no hands!"

Have an adult help you use the can opener to cut the bottom off of an empty coffee can. Be careful. The edges can be sharp. Use scissors to punch a hole in the center of both coffee can lids. Make sure the hole is large enough for a rubber band to pass through easily.

Push the rubber band through one hole, and hook it around a paper clip on the outside of the lid. Tape the paper clip over the hole to hold it in place. Put the lid with the rubber band on the can.

Reach into the can and grab the rubber band. Slide it through the hole

To find out how to make more cars like Balloon Car and Spool Racer, check out pbskids.org/zoom/sci

in the other lid. Then slip the $\langle \ \rangle$ / rubber band through the bead. (You can use a straightened paper clip to push the rubber band through the bead.) Slide a pencil through the rubber band. Place the lid on the can. Adjust the pencil so that its tip sticks out past the edge of the can.

smear some liquid soap around the edge of the lid. This will help the pencil to slide more easily when the car goes. Wind up the rubber band by twisting the pencil. Then place the car on the floor and let go!

Sent in by Susan G. of St. Louis, MO

Science Scoop

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When you wind up the rubber band, you're storing potential energy (stored energy that is ready to be released). The more you twist the rubber band, the more potential energy it has. When you let the rubber band unwind, the potential energy changes into kinetic energy (the energy of a moving object). The kinetic energy causes the can to move across the floor.

Try to make your car go faster or farther. Change one thing, such as the size of the can—that's the variable. Then predict what you think will happen and test it out. Send your results to pbskids.org/zoom