

How to Make Your ZOOMerang

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 1–6 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

Voilà!



What do your friends think of you being on ZOOM?

My friends are really proud of me. I was kind of upset that I couldn't go to summer camp, but they said, "Are you kidding? I'd die to be in your shoes!"

What's the funniest thing that happened while making ZOOM?

When I thought the camera was off, I sang "On My Own."

What's your favorite thing about school?

Seeing my friends and learning something at the same time.

What do you like to do when you're not on ZOOM?

I love skiing and swimming. I want to go skydiving.

What animal most resembles you?

A ferret (one that doesn't smell).

Who from history or the present day would you most like to meet?

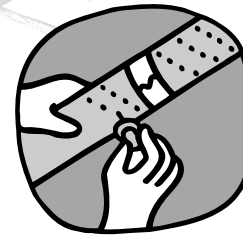
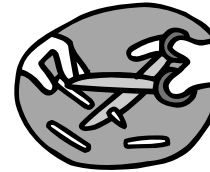
Anastasia (daughter of Czar Nicholas II). I want to know what really happened.

Alisa

What You Need: 1/2–1 cup of small dried beans like lentils or black beans • masking tape • 2 paper towel tubes that are the same size • plastic wrap • pushpin • rubber bands • scissors • about 100 toothpicks

Rainstick

Groove to the mellow sounds of rain with this musical instrument from Africa and South America. Originally it was made by filling a cactus branch with pebbles and pressing the thorns inside.



Tape the paper towel tubes together with masking tape so they make one long tube. You might want to decorate your tube.

Make holes in the entire tube with a pushpin. Keep the holes about 1/2–1 inch apart. The holes should go around the tube in a spiral shape. (The more holes and toothpicks you put in, the more it will sound like rain.)

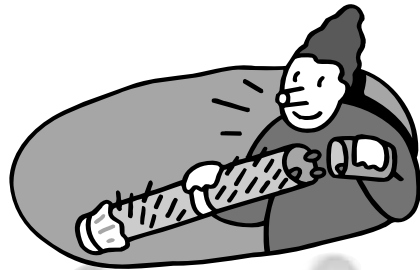
Blunt one end of the toothpicks by cutting them off with scissors.

Insert the pointy ends of the toothpicks into the pinholes and press them into the tube as far as they will go.

Cover one end of the tube with folded plastic wrap. Hold it in place with a rubber band.

Pour the beans into the open end of the tube.

Cover the open end of the tube with folded plastic wrap and put a rubber band around it. Now tilt the rainstick up and down to hear the rain.



What different sounds can you make if you change the tubes or the fillings? Can you use other stuff around your house to make the sound of thunder? Or wind? Tell us all about it at ZOOM, Box 350, Boston, MA 02134, or www.pbs.org/zoom.



sent in by Rebecca S. of Larchmont, NY.

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Cantilever

Dear ZOOM,

Can you build a straw structure—starting from a desk or table-top—that goes out as far as it can without touching the floor? It must be no lower than 56 centimeters off the floor. You can use ALL the straws you want, but only one meter of masking tape. My structure was 168 centimeters long. Can you top that?

Samantha R., Brookline, MA

The cantilever Pablo and Lynese made went 175 centimeters from the table because they

supported it underneath with straws. It was hard to keep it 56 centimeters off the floor. If you start by building up instead of out, you might be able to build something that goes even farther than 175 centimeters.



Send a picture, drawing, or videotape of your cantilever to ZOOM, Box 350, Boston, MA 02134. Tell us how long it is and how you built it.

ZoomTM Magazine Beads

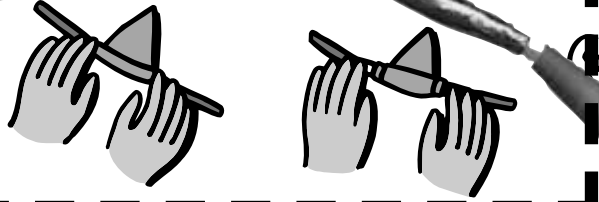
Sent h b y
Wendy J. of
Los Angeles,
CA

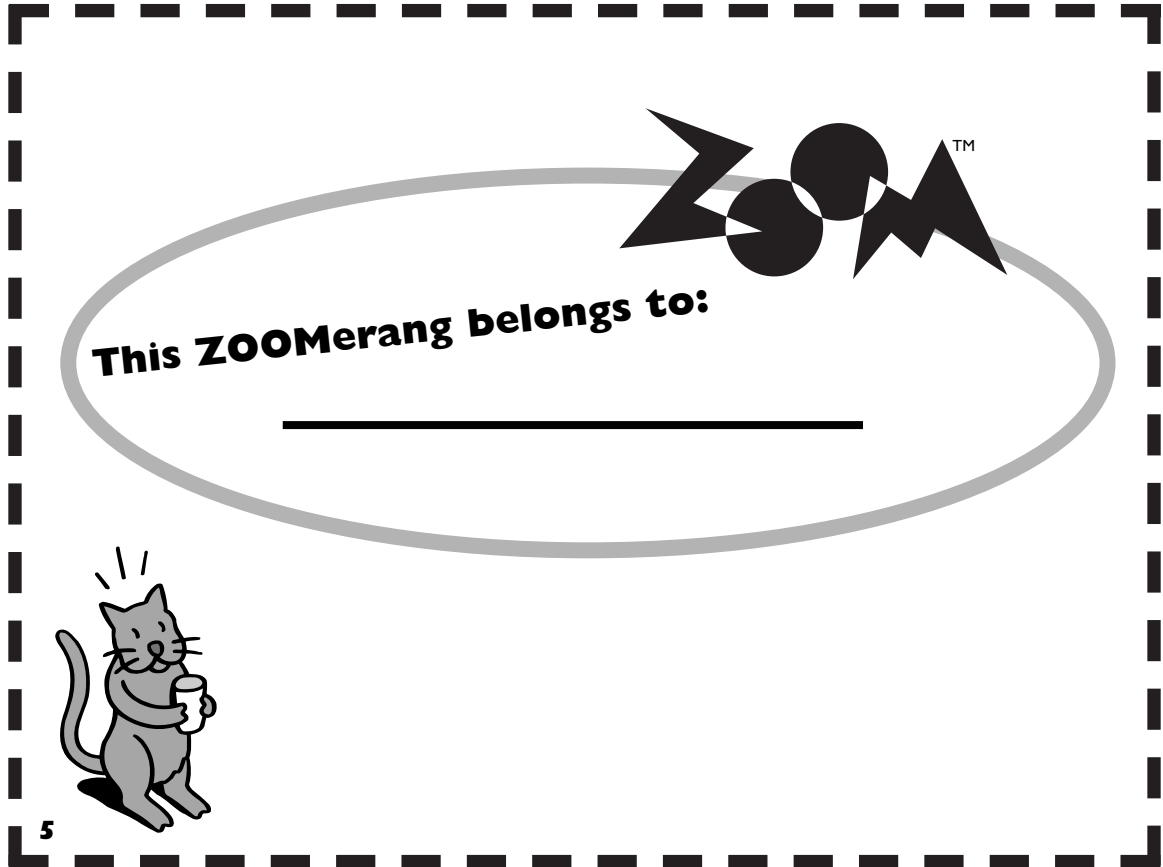
Here's a way to make your own beads without spending any money. Not only that, but you get to recycle and look great at the same time.

What You Need: glue • water • 1 juice box straw or coffee stirrer • old magazines, catalogs or wrapping paper • 1 small paintbrush • 1 paper cup • scissors • string

Cut a lot of long triangles from the magazines, catalogs, or wrapping paper. To make a necklace show facing up. **Squirt** some glue into the paper cup, add a little bit of water, and stir with the paintbrush. **Brush** a small amount of the glue/water mixture onto the triangle, until you reach the point of the triangle. **Slide** the bead off the straw. Make more an hour. **String** the beads together.

Try making beads out of other stuff you can find around the house. Tell ZOOM what you made and send us directions for making more ZOOMdos.





This ZOOMerang belongs to:





The Arthur
Vining Davis
Foundations



ZoomTM erang



KIDS

6

Tongues Can Roll

Aaron F. of Bozeman, MT, asked us if there are more people who can roll their tongues or more people who can't roll their tongues.



Sure you can stick out your tongue, but can you roll your tongue?

Everyone at ZOOM can, but we've heard that some people can't. Is this true? Help us find out by counting how many of your family and friends are rollers and non-rollers. How many can roll their tongue? How many cannot? Send your data to ZOOM, Box 350, Boston, MA 02134, or post your results at www.pbs.org/zoom.

Being a roller or a non-roller doesn't mean anything good or bad. Some scientists think it's an inherited trait. That means you can do it because one or both of your parents can. But scientists don't really know why people can or can't roll their tongues. What do you think?

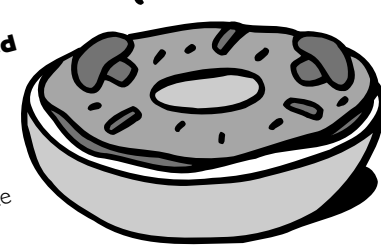
A

Cafe



Pizza Bagel

- What You Need**
- bagel
 - shredded cheese
 - spoon
 - toaster oven or microwave
 - tomato sauce



Many thanks to John K. of Womelsdorf, PA; Jon B. of Camden, AR, and Taquilla M. of Joliet, IL, for their yummy pizza recipes.

It's a pizza! It's a bagel! It's a Pizza Bagel!

Cut the bagel in half. Bagels are hard to cut so you might want an adult to help you. Spread a spoonful of tomato sauce on it. Don't use too much sauce because it might get goopy. Sprinkle some shredded cheese over the sauce. Have an adult pop the bagel into a toaster oven or microwave until the cheese melts. Let it cool and take a big bite.

You can add stuff like mushrooms, basil, and oregano to put some pizzazz into your pizza. Make a pizza tortilla or pita pizza. Or invent your own. Bon appetit!

What did the
mayonnaise say to
the refrigerator?
(from Larisha J. Baton Rouge, LA)
Close the door! I'm dressing.

B

**You can use a salt pendulum
to make cool designs.**

What else do you think pendulums
can be used for? Back in the 1500s,
Galileo found that each swing of a
pendulum takes the same amount of
time, so a pendulum can be used as
a clock. How do you think it works?

What You Need

construction paper • tape
• scissors • string • several
sheets of black paper • salt



Salt Pendulum

Roll and tape the construction paper into a cone shape. Make sure there's a small hole at the tip of the cone.

Cut three same-size pieces of string and tape them to the inside of the cone. Tie the three pieces of string into a knot.

Cut a piece of string and tape it across the top of a doorway.

Cut a long piece of string and tie it to the middle of the string that's across the doorway.

Tie the cone's strings to the long piece of string hanging from the doorway. Make sure the cone isn't touching the floor.

Put black paper on the floor across the doorway.

Pinch the bottom of the cone together and pour salt into it.

Lift the pendulum toward you and gently let it go.

sent in by Andreas C. from Cincinnati, OH

D



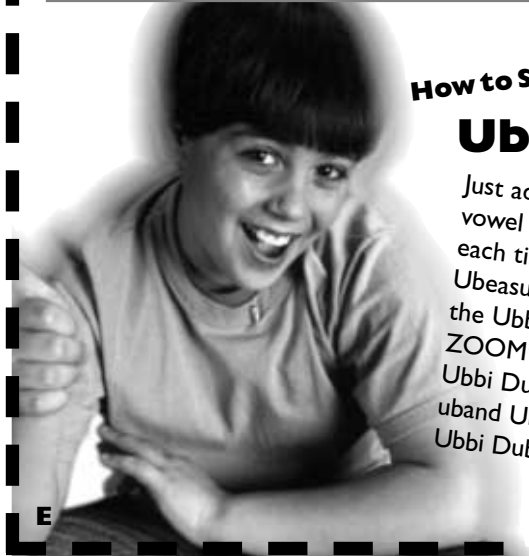
The swing of a pendulum is affected by gravity. Gravity is a force that pulls objects down toward the Earth's center. When you pull the pendulum back, you give it energy. When you let it go, gravity pulls it down, but the pendulum has enough energy to keep swinging back and forth.

What else can you find out about your salt pendulum? Think of a question you want answered, like what would happen if you changed the length or number of the strings? Be sure to predict what you think is going to happen. Then test your question and tell us about it at ZOOM, Box 350, Boston, MA 02134, or www.pbs.org/zoom.

The Web

Metafile: <http://www.pbs.org/wgbh/zoom/>

Check out www.pbs.org/zoom to find CafeZOOMs, ZOOMscis, ZOOMdos, and lots more. Oh, and if you don't have access to the Web at home, you should be able to find it at your school, public library, or the community centers in your neighborhood.



How to speak

Ubbi Dubbi™

Just add "ub" before each vowel sound. Accent the "ub" each time it comes up. Ubeasuby, ubisn't ubit? Use the Ubbi Dubbi translator on ZOOM's Web site to turn Ubbi Dubbi into English, uband Ubenglubish ubintubo Ubbi Dubbi.

Cups Puzzle

Put 2 cups upside down and 1 cup right-side up. Turning 2 cups at a time, get them all upside down or right-side up in exactly three tries.

sent in by Taylor F. of Crete, IL

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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



#102

E

POEM

The Cat Knows More

Yawn, sleep,
The black cat creeps
Wake, stretch
The cat has its catch
Slippers, feet
The cat begins to eat
Stumble, stairs
The cat cleans its hair
Drip, clink
The cat begins to drink
Bowl, cup
The cat curls up
Out, in
The cat knows where she's been!

sent in by Kate N. of Acton, MA



We want your stories and poems, so if you've got the **write** stuff, send it to **ZOOM!**

ZOOM Needs You



Celebrate a do-gooder. Tell us about a kid you know who has done something great. Be sure to send a picture or video.



Give us a mind-bending mental challenge or a knee-bending physical challenge.



Tell us your most embarrassing moment!

Send your ideas to ZOOM, Box 350, Boston, MA 02134, or www.pbs.org/zoom.