

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!

Frances's Home

How would other cast members describe you?

They would say that I'm multi-talented, energetic, and stylish.

What's the goofiest thing you had to do for the show?

I had to dress up like a frog.

What animal most resembles you?

I'm like a puppy because I like to run around and be free.

What do you want to be when you grow up?

I want to be an actress, singer, and dancer.



Visit my home page on the ZOOM Web site and find these cool things to see and do!

Page



If you don't have Web access at home, you can probably log on at your school, public library, or local community center.

at pbskids.org/zoom



ZOOMnotes™

Send a special ZOOM e-mail to a friend.



ZOOMvid™

Make your own video and send it to us!



Reviews

Check out what other ZOOMers think of the latest music, books, and movies.



Survey

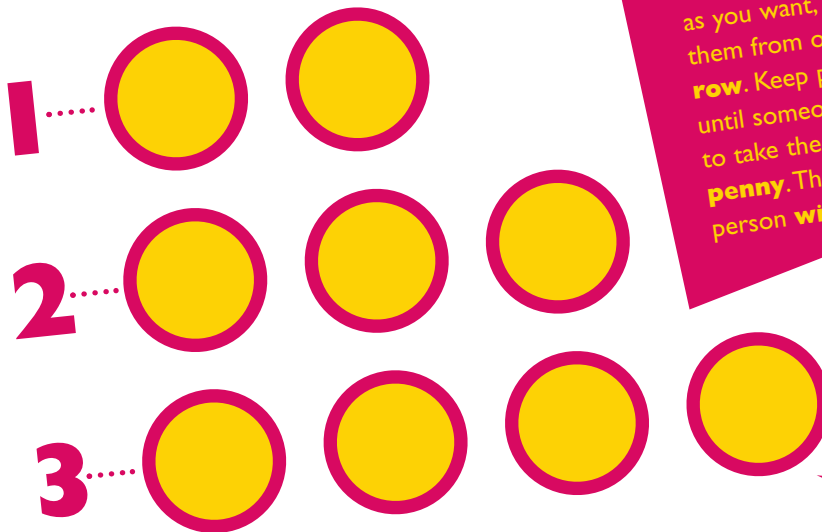
Tell us what you think in our latest ZOOM survey!

You are the Director!

Tell us a **story**, stage your own **cooking show**, or **recite limericks** backward while hopping on one foot. Whatever your talent, **film it**, send it in, and you might see it on ZOOM!

Find out how to **make a video** at the **ZOOMvid** section on the ZOOM Web site.

Nim



For this game you need **nine pennies** and a **friend**. **Set up** the pennies on the spaces below. Take turns with your friend. On a turn, **take** as many pennies as you want, but take them from only **one row**. Keep playing until someone has to take the **last penny**. The other person **wins!**

Sent in by Kayla B. of Milwaukee, WI



ZOOM Into Action™

Second graders from the Grove School in Northbrook, Illinois, are members of the ZOOMteam. They baked 2,650 cookies for 21 homeless shelters. Way to go, second graders!

You can volunteer and become a member of the ZOOMteam, too. Visit pbskids.org/zoom/action to get ideas of how to volunteer and to see what other kids are doing.

Share Your Story!

Tell us about your volunteer project. Visit the ZOOM Web site to print the **Share Your Story form**. Fill it in and mail it, along with videos and pictures, to ZOOM. We'll send you a free ZOOM Into Action T-shirt decal and wristband.



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Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.

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!

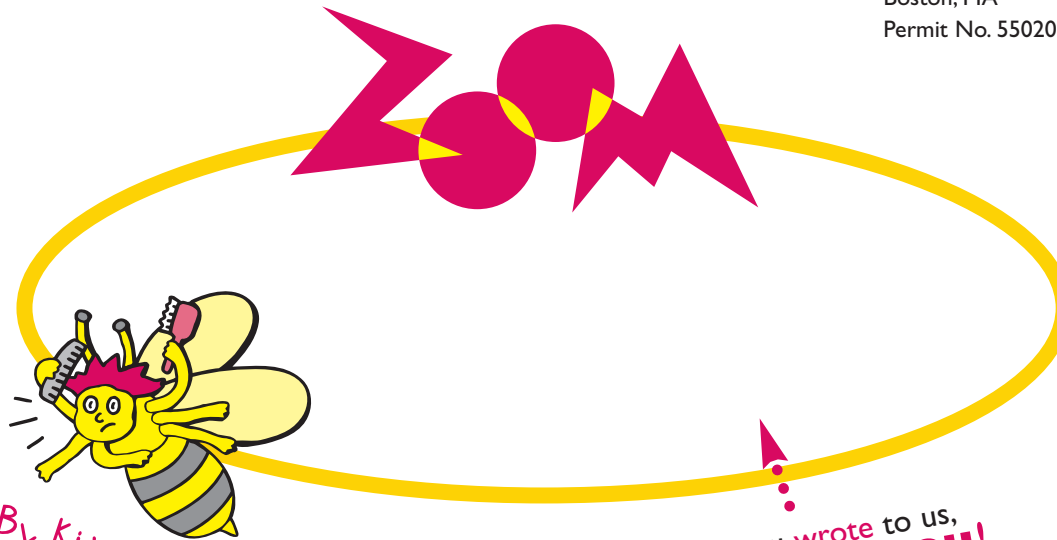
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By Kids, For Kids™

Since you *wrote* to us,
we're writing to **you!**



Thanks for writing to ZOOM!



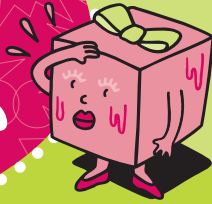
ZOOMerang™



The Arthur Young Davis Foundations



Keep-a-Cube



How long can you keep an ice

What You Need

- 2 ice cubes of the same size
- cardboard box (about $1\frac{1}{2}$ feet by 1 foot)
- wax paper
- masking tape
- newspaper
- aluminum foil
- plate

Sent in by Becky R. of Greenfield, WI,
and Billy M. of Reno, NV

Use the materials above (except the plate) to make a **Keep-a-Cube box** that will keep an ice cube from completely melting in 90 minutes. Think about what makes ice melt as you design your box. You can wrap up the ice cube, cover the box, or do anything else you can think of. Put a second ice cube on a plate. This is your "**control**" cube. Don't make any changes to this cube. **Wait** 90 minutes. **Compare** the ice cube in your Keep-a-Cube box to the control ice cube. Which ice cube is **bigger**? Why?

Now it's time for you to experiment. How can you **change** the container so the ice cube lasts longer? What happens

cube from completely melting?



if you use a **smaller** box? What happens if you use **different materials**, like foam packing peanuts or cotton balls? Choose one thing to change, that's the **variable**, and make a **prediction**. Then **test it** and send your **results** to ZOOM at **pbskids.org/zoom**



Science Scoop

What makes ice melt? **Heat!** The air around the ice cube is **warmer** than the ice. So you need to **keep the warm air away** from the ice cube. To do this, you use **insulation**, a material that slows heat energy from passing through. When we tried this on ZOOM, Caroline and Frances **wrapped their ice cube** in wax paper and **sealed** the box to keep warm air out. Eric and Rachel **covered their box** with aluminum foil to keep the heat out. How did **you** slow the melting of your ice cube?



Look for other experiments with heat, like Heat Saving Device and Hot and Cold Water, at **pbskids.org/zoom/sci**

Rising Ice

What You Need

- large glass of cold water
- ice cube
- piece of string (about 12 inches long)
- salt

Can you pick up an ice cube using a piece of string?



Put the ice cube in the water and **lay** the string across the top. Try to **pick up the ice cube**. What happens? **Remove** the string, and **sprinkle** a pinch of **salt** on the ice cube. **Lay** the string on top of the cube again. **Add** a bit more salt. **Wait** about 90 seconds. Try to **pick up the ice cube** again.

Now it's time for you to experiment. What happens if you add **more salt**? What happens if you use **less salt**? What happens if you sprinkle **pepper** on the cube instead of salt? What happens if you use **sugar**? Choose one thing to change, that's the **variable**, and make a **prediction**. Then **test it** and send your **results** to ZOOM at pbskids.org/zoom

ZOOM phenom™

Sent in by kids at the
Kelly Smith Elementary School
in Francis, FL



Science Scoop

Why can you **pick up** the cube after you sprinkle salt on it? Water **freezes** at a certain temperature. When you add salt to the water, it freezes at a **lower** temperature. So when you add salt to the ice cube, the ice on top **melts** and forms a small puddle. Then, when you place the string in the puddle, the puddle of water **refreezes** around the string. One of the reasons it refreezes is because the small puddle of water is **cooled** by the ice below.

D

How to Speak Ubbi Dubbi™

Just add "**ub**" before each vowel sound. Accent the "**ub**" each time it comes up. Whubat's yubour fubavuborubite ZubOOM ubactubivubityubi? Tubell ubus ubabubout ubit ubat **pbskids.org/zoom!**



Use the Ubbi Dubbi translator on ZOOM's Web site to turn Ubbi Dubbi into English, uband UbEnglubbish ubintubo Ububbbubi Dububbbubi.

Edible Spiders



What You Need

- peanut butter
- round crackers
- plastic knife
- pretzel sticks
- chocolate chips



Spread peanut butter on two round crackers. Put eight **pretzel sticks** on top of one of the crackers to make the **eight legs** of the spider. Then, **put** the other cracker on top to make a **sandwich**. Using peanut butter, stick the chocolate chips on top of the sandwich to make the **spider's eyes**.

What other buggy treats can you create? Send the recipe for your favorite edible bug to ZOOM at pbskids.org/zoom



Find more edible insects, such as Tasty Bug and Butterfly Bites, at pbskids.org/zoom/cafe

Sent in by Kristen K. of Salt Lake City, UT

E



Popsicle Stick Puzzle

Sent in by Shari H.
and Tarrah B.
of Lehigh Acres, FL

What You Need

- popsicle sticks
- masking tape
- paint
- paintbrush



Line up your popsicle sticks so that their sides touch. You can use as many popsicle sticks as you want. Use masking tape to **tape** them together. Then **flip** over the popsicle sticks and **paint** a picture. When the paint **dries**, take off the tape. Challenge a friend to **put together** your puzzle.

What other things can you make with popsicle sticks? Send your favorite popsicle stick craft idea to ZOOM at pbskids.org/zoom

Why do bees have sticky hair?



Because they use honeycombs.

Sent in by Sarah B. of Denver, CO



Find more Toy Dos, such as Shadow Puppets and Kaleidoscope, at pbskids.org/zoom/do