

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!

Simon Says Not

This is played like the traditional Simon Says, except that players have to do the opposite of what Simon says. If Simon says, "Simon says raise your left hand," you have to raise your right hand or you're out.
sent in by Alison M.
of Houston, TX



Jelly Bean Transfer

Try to transfer jelly beans from one bowl to another using a spoon in your mouth. The first player who transfers all their jelly beans wins.
sent in by Melissa P.
of New Rochelle, NY



Thirteen Sticks

The players get a pile of 13 sticks or pencils. Each player decides to pick up one or two sticks. The player who picks up the last stick loses the game.

sent in by Kelly And Brianna
S. of Marblehead, MA



Shoe Relay

All the players take off their shoes and put them in a big pile, mixing them up. Then the players form two teams. On "Go," a player from each team runs to the pile, finds her shoes, puts them on, ties them, runs back to the team and tags the next person in line, who then does the same thing. The team that finishes first wins.

sent in by Janine L. of
McLean, VA and Heidi N.
of Currie, NC

Pile Up

Get 6 or 7 friends together and make a circle. Face the back of the person in front of you. Get close together and try to sit on the lap of the person behind you. For an added challenge, try singing, "Row, Row, Row Your Boat" 3 times before collapsing.

sent in by Crys
N. of Mount
Vernon, ME.



The
ZOOM cast
is playing Pile Up
on the cover of this
ZOOMerang.

Here's a way to shoot off a rocket without spending all the money NASA does. This one needs baking soda, vinegar, and toilet paper to power it. How do you think it works?

(You may want to launch your rocket outside—it can be kind of messy.)

What You Need

- construction paper
- an empty film canister
- tape
- scissors
- baking soda
- toilet paper
- vinegar

The Body

Roll a piece of construction paper once around the bottom end of the film canister, covering half the canister. Leave the other half of the canister bare so that when you launch it you'll have something to hold onto. **Tape** the paper in place. Then tape the edges of the paper together so that it forms a tube.

The Nose Cone

Cut a circle out of construction paper. Cut a slit to the middle of the circle, then **CROSS** the two ends on either side of the slit to make a cone shape. **Tape** the ends of the cone together and tape the cone to the opening of the construction paper tube.

The Fuel

Put a couple of teaspoons of baking soda on two squares of toilet paper, **fold** the toilet paper, and put it in the film canister.

Fill $\frac{3}{4}$ of the canister with vinegar and put the lid on quickly. **Set** the rocket down with the nose cone facing up and **step away** from the launch site.

Blast off!

Film



Canister Rocket



Now think of a question you want answered, like, what would happen if you used a different-sized nose cone or body tube? What if you used different amounts of baking soda or vinegar? Be sure to predict what you think is going to happen. Try it out and tell us about it by writing to

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

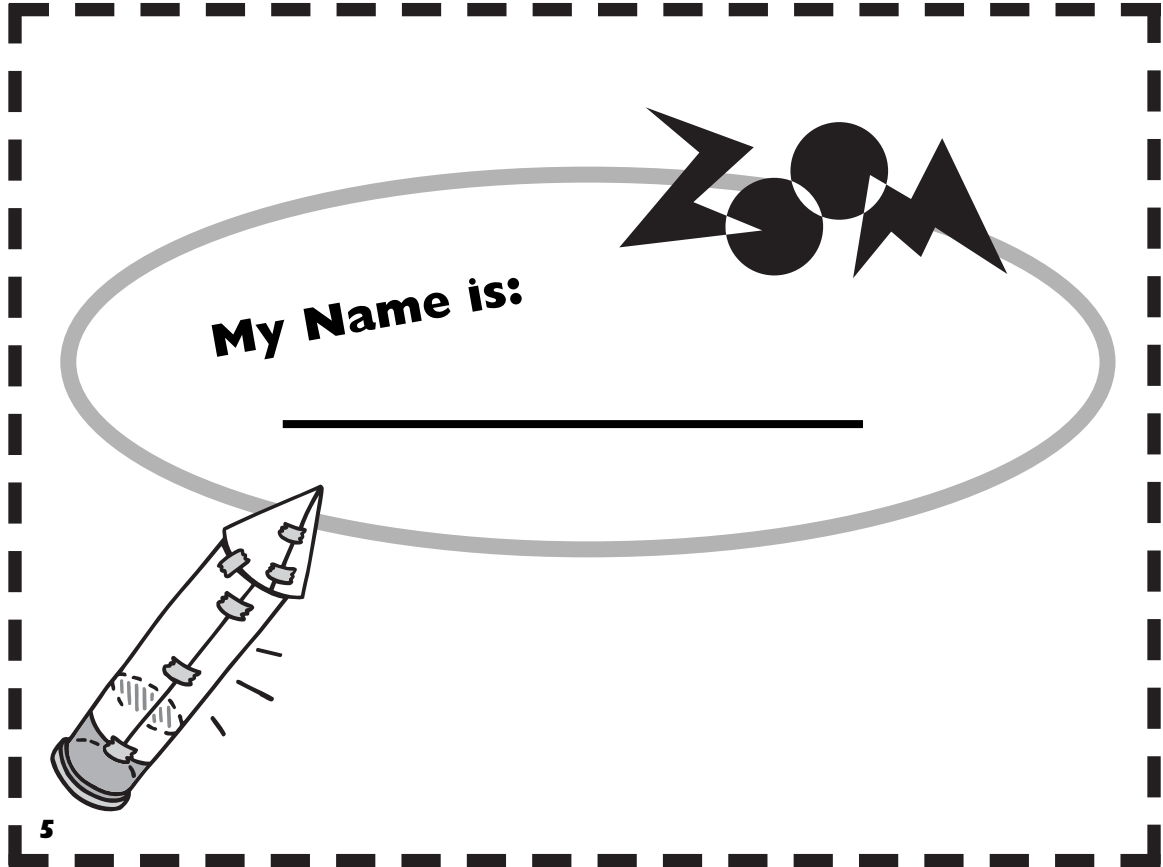
sent in by Meghan S. and Lee M. of College Station, AR

Fact or Fake?

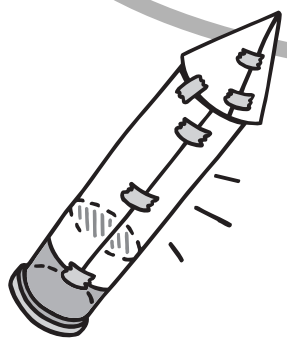
A film canister rocket is powered by

- a** the toilet paper, which creates an antigravity field.
- b** all that paper and tape.
- c** a chemical reaction between the baking soda and vinegar.

Your rocket shoots off using the energy created by a chemical reaction between baking soda and vinegar. They combine to form carbon dioxide gas. It's the same gas that makes sodas fizz, and you know what happens when you shake up a soda. The toilet paper is important because it slows the chemical reaction so you have time to launch the rocket.



My Name is:





*The Arthur
Vining Davis
Foundations*



ZOO erang™

Toothpick and Marshmallow Shapes



The bigger the shapes were the more support they needed.

And the cooler they looked.

Whitney F. of Keller, TX, challenged ZOOM to make **three-dimensional shapes** out of marshmallows and toothpicks. She said we can make as many as we want, but we can only have **up to 8 marshmallows touching the table** for each structure.

Zoe and Keiko made lots of different shapes, like triangles, rectangles, a pentagon, and an octagon. They made a star shape and a shape that had a triangle, a square, and a rectangle in it.

How many different shapes can you build? What if you built one with **only 4 marshmallows touching the table?**

How would it be different?
Send your designs to ZOOM,
Box 350, Boston, MA 02134.

A



thanks to Laura C. of
Western Springs, IL

**A cabbage,
a sink, and a tomato
had a race. How did it
turn out?**
The cabbage
came out ahead, the sink is
still running, and the tomato is
trying to ketch-up! (from
Jamie G., Hooksett, NH)

Friendship

- Thirty centimeters of each thread is enough for a bracelet. Take **6 threads** of equal length and tie them together with a knot at one end.
- The cardboard is going to hold your thread. Cut six vertical **1-centimeter slits** along the bottom of the cardboard and one at the top of the cardboard in the center. (If you're using more or less than 6 threads, you should make the same number of slits in the cardboard.)
- Place the **knot** through the slit at the top of the cardboard so it can't fall out, and place each individual thread in the slits at the bottom of the cardboard. The order that you **line up** your threads is the order that they will appear in the bracelet.
- Take the thread **farthest** to the left out of the slit and place it over the thread next to it in the shape of a four.
- Bring the four-shaped thread **under** the thread next to it and pull it up to the knot at the top. Repeat.

Bracelets

Wow your friends with these cool handmade bracelets. All you need are different colors of embroidery thread, a square of cardboard, and scissors.



- Do this **twice** for each thread using the same thread to make the four-shaped knot until that thread ends up on the far right of the cardboard. Then move all the threads over **one slit to the left**.
- Starting with the thread that is now on the left-hand side, **repeat** the process until you get to the end. Remember to leave enough extra thread at the bottom of the weaving so you can tie it into a knot.
- When you are done, give it to a friend.

Can you figure out how to make friendship bracelets with different patterns or designs? What other fun things have you made for your friends? Send your ZOOMdos to ZOOM, Box 350, Boston, MA 02134 or www.pbs.org/zoom.



What's the silliest thing you've had to do on ZOOM?

I had to eat a humungous spoonful of peanut butter!

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

Hanging out with my friends is my favorite activity.

What's your favorite food?

Junk food.

What's your favorite ZOOM activity?

The ZOOMchats™.

What animal most resembles you?

A scorpion.

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

Jada Pinkett, the actress.

What do you want to be when you grow up?

A police officer.

Lynese

The Web

Netstar: [http://www.pbs.org/wgbh/zoom/]

Check out www.pbs.org/zoom to find more 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.



Learn to Speak Ubbi Dubbi™

Just ad “ub” before each vowel sound. Accent the “ub” each time it comes up. Can you say *Pubetuber Pubipuber pubicked uba pubeck ubof pubickled pubeppubers ten times fast?*

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



TM/© 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.

ZOOM is produced by WGBH Boston. Funding for ZOOM is provided by the National Science Foundation, the Corporation for Public Broadcasting, the Arthur Vining Davis Foundations, and public television viewers.

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!

Illustrations: Stephen Schudlich
Photos: Mark Ostow



#107 99 05.092



Dear ZOOM,
 Can you make a car
 out of 3 straws, 4
 Lifesavers, 1 piece of
 paper, 2 paper clips,
 and 50 centimeters
 of tape? If you do this
 in teams, you can race
 them. But here's the

Puff Mobile

catch, you can only blow on
 them to make them move!

Rebecca and Lee Anne F.
 of Medfield, MA



Alisa, Zoe, Jared, and Keiko figured out how to make the wheels and the axles of the car pretty easily, but it was harder to make the body. They made the cars in two teams but the designs were a lot alike. The Puff Mobile that Zoe and Alisa made was a little slower because it had more tape and paper clips, which weighed it down. Their advice is to think how you can make the body like a sailboat so that it will catch the air when you blow on it.

F

ZOOM Needs You



What's the coolest
 game you and your
 friends ever made up?
 Tell us how to play it!



Be the next Bill
 Shakespeare. Send ZOOM
 your short original plays.



What do you want to hear
 the ZOOMers talk about?
 Moving? Making friends?
 Give us stuff to discuss.

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