

WELCOME ALKI FAMILIES



Alki PTA Presents:

STEM
+ **FAMILIES**



SCIENCE FESTIVAL

Friday, May 14th 6:00 PM | Virtual Event

Before we begin, you will need the following:

Science Materials



Safety Glasses



Marker



Paper Towel



Water



Before We Begin!

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Science Materials



Safety Glasses



Marker



Paper Towel



Water



Thanks to a grant awarded to Alki PTA, we are able to bring this program to Alki Elementary. Thank you to the many parent volunteers that made this happen!



STEM + Families Science Festival

In partnership with Bayer Fund



Norms

- Actively participate
- Be open minded and respect other's ideas
- Use technology responsibly
- Limit sidebars; please mute when not speaking

What is STEM?

Science

Technology

Engineering

Math



Experiments

Sticky Icky

Martian
Jelly

Bubbling
Lava
Lamp



First Experiment

- Sticky Icky

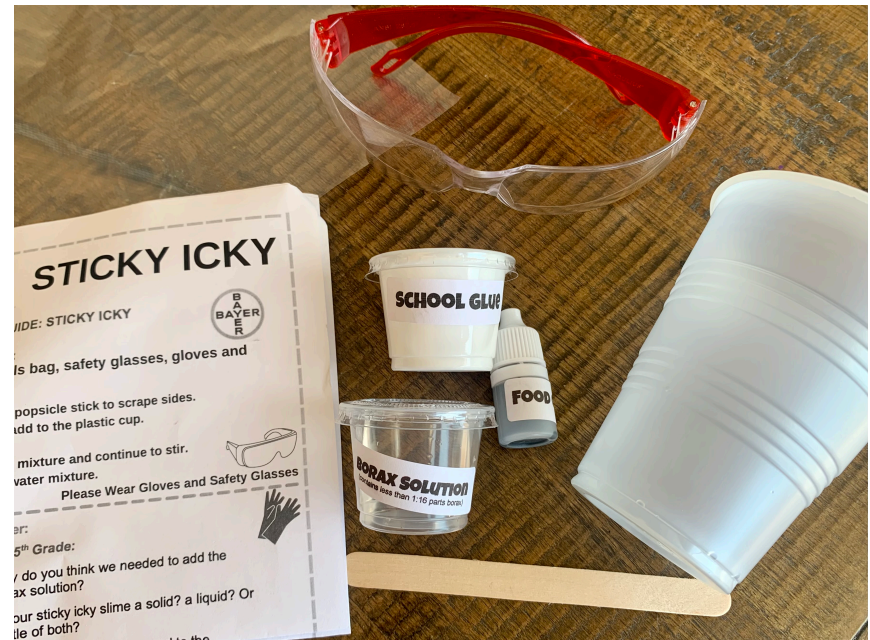
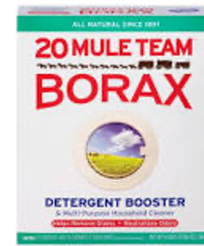
Sticky Icky Materials

From your kitchen:

- Tap Water

Materials in your Supply Bag:

- White school glue
- Food coloring
- Borax Solution
- Plastic cup
- Popsicle sticks
- Safety glasses
- Gloves





Sticky Icky Instructions

1. Pour the school glue into the plastic cup using your popsicle stick to scrape sides.
2. Using your empty school glue container, fill it with water and add to the plastic cup.
3. Stir well with your popsicle stick.
4. Add 3-4 drops of food coloring to the glue and water mixture and continue to stir.
5. Slowly pour in the Borax Solution into the glue and water mixture and stir.



Second Experiment

Martian Jelly

Martian Jelly Materials

From your kitchen:

- Tap Water
- Paper Towel

Materials In your Supply Bag

- Grape jelly
- Baking Soda
- Vinegar
- Popsicle stick
- Plastic Cup



Martian Jelly



Martian Jelly Instructions

1. Fill your plastic cup half way with tap water.
2. Add your grape jelly to the water and stir with popsicle stick.

Note the color.

3. Add a pinch of baking soda and stir.

4. **What did you notice?**

5. Slowly add vinegar. Be careful! A fizzing reaction will occur, possibly causing it to overflow.

6. Stir until the color of the grape jelly solution changes again.



Third Experiment

**Bubbling
Lava Lamp**

Bubbling Lava Lamp Materials

From your kitchen:

- Tap Water

Materials In your Supply Bag

- Vegetable oil in a clear plastic bottle
- Food coloring
- Effervescent antacid tablets





Lava Lamp Instructions

1. Add water to your vegetable oil container, leaving about 1 inch of space at the top.
2. Add 5-10 drops of food coloring to the bottle.
3. Break your effervescent tablet into smaller pieces and add one piece into the bottle.
4. When the bubbling stops, add another piece.
5. Repeat as necessary.



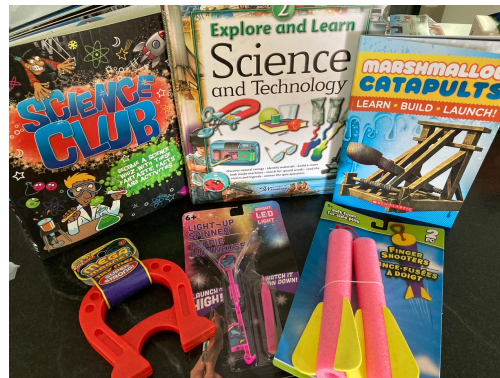
**DO NOT POUR
OIL DOWN
DRAIN**



When the the bubbling has completely stopped, screw on the cap, tip the bottle back and forth and watch the wave appear. Enjoy the show.

PRIZES!

5 lucky winners will receive a STEM prize pack for participating in tonight's Stem + Families Science Festival



Let's Spin the Wheel!

Huge shout-out to Pegasus Books, The Works Seattle , Math 4 Love, Tiny Science and Seattle Aquarium for supply these awesome prizes!

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What Did You Learn?

Go to the [Jamboard](#). For each experiment, add sticky notes to share what you learned!



Activating Question

What makes a
rocket lift off?

The Science Behind the Fun

Did you know?

- Alka-Seltzer tablets are made up of citric acid and sodium bicarbonate. These form carbon dioxide when dissolved in water.
- When Alka-Seltzer is added to the water in the film canister, carbon dioxide is released which builds pressure inside it.
- When the pressure builds high enough, it blows the canister apart from its lid.
- Thus, launching the rocket in the air.



Real World Application



- Actual rockets use the same concept. In an actual rocket engine, hot gas is produced by the burning of fuel.
- The gas is accelerated to the rear of the rocket.
- This produces a thrusting force, which makes the rocket “lift off.”



Alka Rocket Materials

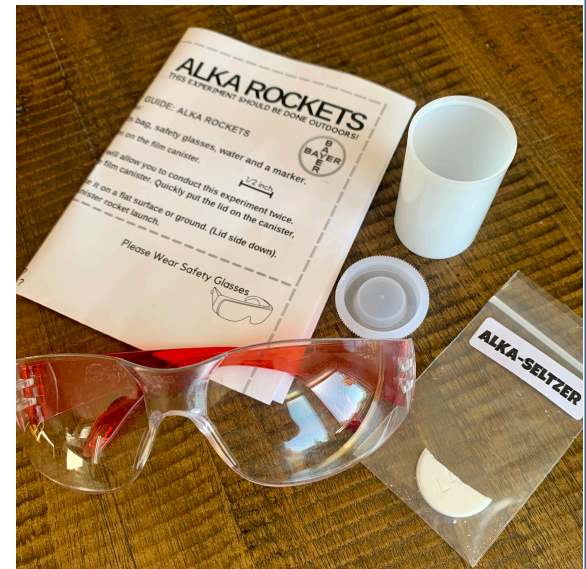
From your kitchen:

- Tap Water

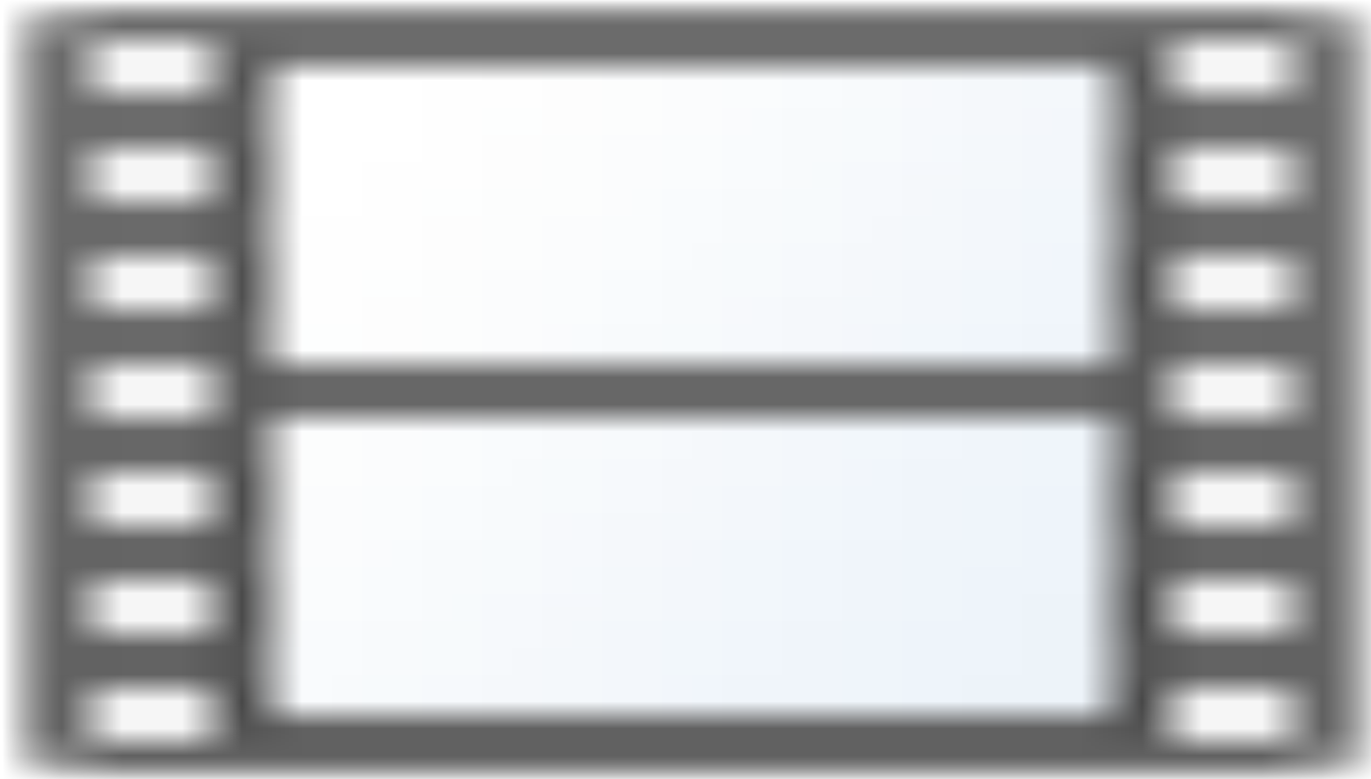
**Do this
experiment
outdoors!**

Materials In your Supply Bag

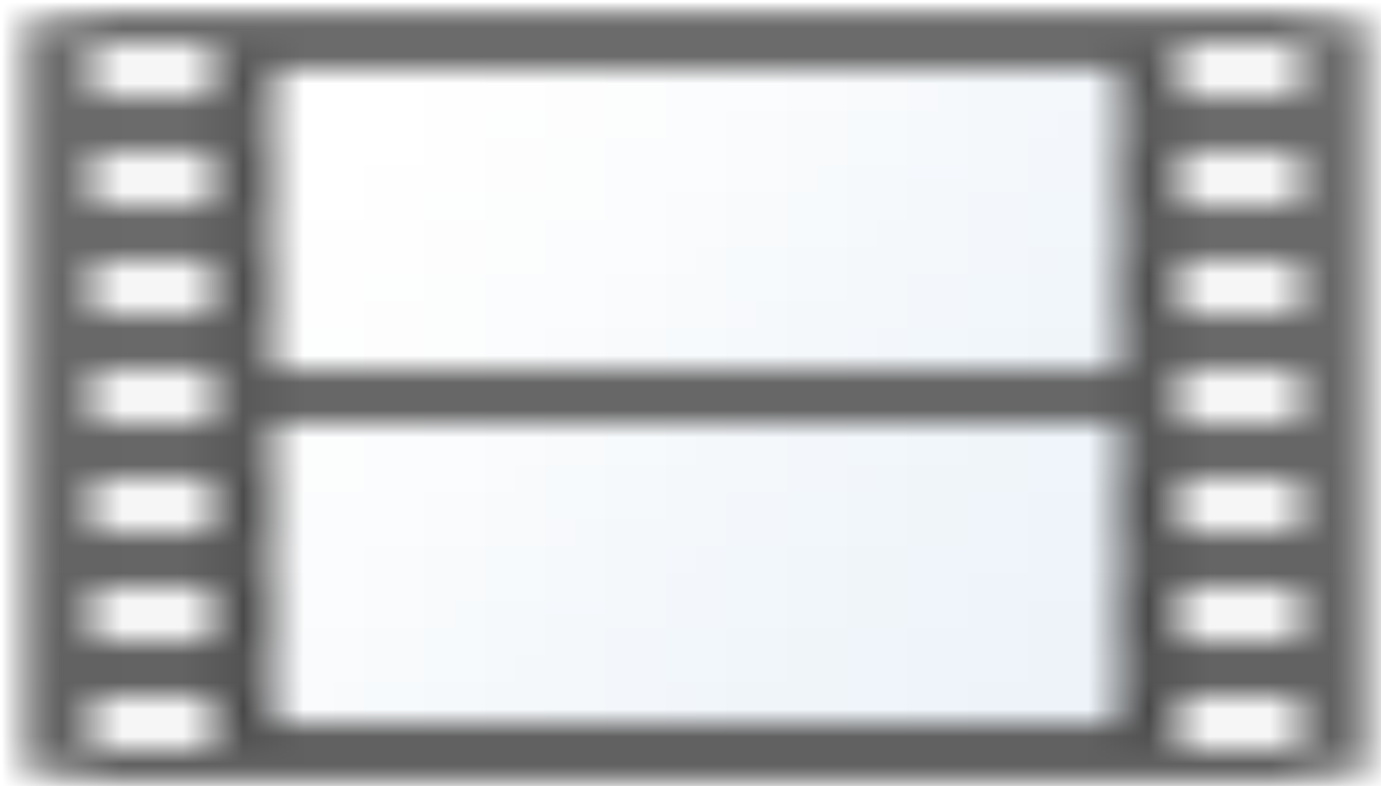
- Film Canister
- Effervescent antacid tablets



Alka Rockets



Alka Rockets - Part 2



Recycle Your Plastic Bags!



Recycle your Science Festival plastic baggies at school on Monday! Look for the Ridwell box near the Free Little Library!

All other plastic materials in your kit can be recycled with your curbside recycling.



Thank you!

Thank you student scientists: Betty, Uemera, Coralie, Freya, Alessa, Henri, Oscar, Cam, Jade, Kai, Zoya and Kian!

Partners:

- Pegasus Book Exchange
- The Works Seattle
- Math 4 Love
- Tiny Science
- Seattle Aquarium
- Ridwell

Parent Volunteers + their families:

- Mad Scientist Mike Uehara-Bingen
- Mel Spiker, Grant Writer
- Ali Pankop, Organizer
- Annika Mizuta, Prize Pack Coordinator
- **Supply Bag Prep All-Stars:** Lisa Chapman, Salleigh Knox, Kylie Kirkland, Lee Anne Hughes, Laetitia Rettori, Courtney Teitler, Rachel Thomas, Akemi Sakaida, Mel Spiker, Amy Cooper, Dawn Uza, and Jessica Kirkwood.



Thank You!

For more fun STEM
experiments, go to
PTA.org/STEM/At-Home