

## Fireworks in a Jar

(experiment from [growingajeweledrose.com](http://growingajeweledrose.com))



- An empty jar
- 4 tbsp of cooking oil
- Food coloring
- Water
- A bowl
- Paper towels
- A spoon

1. Begin by filling an empty jar 3/4 of the way with water. Set this to the side.
2. In a bowl combine *3 tablespoons of cooking oil* along with several drops of food coloring.
3. You will want to add 3-5 drops of food coloring for each color that you are using.
4. Use a spoon to *stir the food coloring* into the oil. *It will not mix*, but stirring will help to break the food coloring into smaller droplets. Now, pour the container of oil into the jar of water.
5. After a moment or two *the oil will settle at the top* of the jar, but the food coloring will begin to shoot down and mix into the water, *creating a "fireworks" effect!* The food colors will continue to shoot down *like fireworks* until all of the droplets have fallen from the oil.

## **Easy Straw Rockets**

(experiment from frugalfun4boys.com)

- Straws –one regular sized straw and one large straw for each rocket.
- Duct tape – we used the narrow 3/4 inch wide kind, but any kind is fine.
- Craft foam
- Scissors
- Hot glue



1. First, cut off a section of the milkshake straw. Cover one end with duct tape. Make sure that it's totally sealed with no openings for air to escape.
2. Then cut 3 small triangles out of craft foam. These will be the fins for the rocket.
3. Hot glue your fins to the base of the straw, and you're all set! Grab a regular straw for launching the rocket. Ours were bendy straws, which was fun because we could bend up one end to hold the rocket. It will work either way, though. You can either launch the rocket straight up, or blow it forward.
4. Then it's time to play! Load your rocket on the end of the straw. Then give it a firm blow. That's all there is to it!

## Turn Milk into Plastic

(experiment from mommypoppins.com)

- 1 cup of milk
- Stovetop and pan or microwave and microwaveable container
- Thermos or another insulated container
- Heat-resistant cup or mug
- 4 tsp white vinegar
- Paper towels
- Optional: food coloring, glitter, and markers



1. Add 4 teaspoons of white vinegar to the heat resistant mug.
2. Have a grown-up heat 1 cup of milk until steaming on the stove or in the microwave. Pour the hot milk into a thermos and add the hot milk from the thermos to the mug with the vinegar. When the hot milk is added to the vinegar, the milk should form white clumps (curds). Mix the mug of hot milk and vinegar slowly with a spoon for a few seconds.
3. Use a spoon to scoop out the curds once the milk and vinegar mixture has cooled a bit. Tilt the spoon against the inside of the mug to let the excess liquid drain out while retaining the curds in the spoon. Collect as many curds as possible and drop them on top of a stack of two paper towels.
4. Fold up the sides of the paper towels and press down on the curds to absorb excess liquid. Two more paper towels can be pressed down on top of the curds to soak up any remaining liquid.
5. Knead all of the curds together into a ball of "dough."
6. Now you can color, shape, or mold their plastic (make sure to do this step within an hour of making the dough). Food coloring, glitter, or other decorations can be added to the wet plastic dough.
7. To shape the plastic, you must knead the dough well before shaping it. The dough can be sculpted by hand or with cookie cutters.
8. Let it dry for at least 48 hours. The dried dough plastic should be hard. Drying times will vary depending on the thickness of the final item (thicker pieces take longer) but plan on leaving it for at least two days. Once dry, it can be painted or colored with markers.



## Static Electricity Butterfly

9. (experiment from [iheartcraftythings.com](http://iheartcraftythings.com))

- Cardboard
- Tissue Paper
- Cardstock Paper
- Pencil
- Scissors
- Googly Eyes
- Balloon
- Glue Stick

1. Take out your cardboard. Use your pencil to draw butterfly wings on your tissue paper. Make sure you draw them smaller than your square of cardboard. Cut out the wings and set them onto the cardboard—do not glue them onto the cardboard!
2. Cut a butterfly body that is a little longer than your butterfly wings out of your cardstock paper and glue it down the middle of your butterfly and overlapping it onto your cardboard. The body of the butterfly will be holding the wings in place. Again, do not glue down the wings. You will want the wings loose like shown in the picture. Glue the googly eyes onto the body.
3. Blow up your balloon. Rub the balloon in your hair to give it an electric charge. Now hold the balloon on top of the butterfly, close by not touching it, and watch the wings raise and lower as you move the balloon closer and farther away!

## DIY Bird Feeders

- Small Paint can
- 3/16" wooden dowel
- Finch food
- Paint (like house paint)
- Paintbrush
- Ribbon or twine
- Hot glue + glue gun



1. Cut a 4-inch section off the dowel.
2. Paint the exterior of the paint can in a color of your choosing.
3. Once the paint is dry, put a little dollop of hot glue in the interior bottom of the paint can rim (where the lid would snap in) and wedge the 4-inch dowel piece in.
4. Wrap your ribbon or twine around the paint can leaving enough of a loop at the top to hang your paint can. Secure the ribbon with hot glue.
5. Hang the paint can outside and fill with food. Then wait for the birds to appear!

MORE EXPERIMENTS!! Find directions on how to make your own Bouncy Ball, Lemon Volcano, and Hot Ice on <https://academy.animaljam.com/posts>