

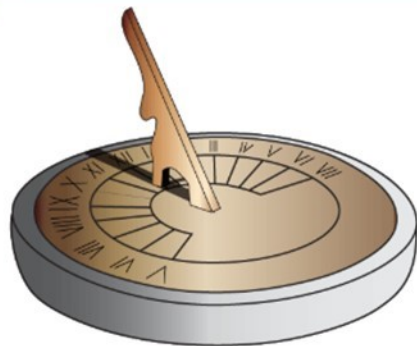
# DAILY BOREDOM BUSTER

## Seriously Super Science #2

Raid your pantry - it's time for some more seriously super science!

Check out the following pages for some cool and interesting experiments and projects you can do at home.

If you want even more fun science stuff then head over to <http://www.sciencefun.org/kidszone/experiments/> which is where all today's projects came from.



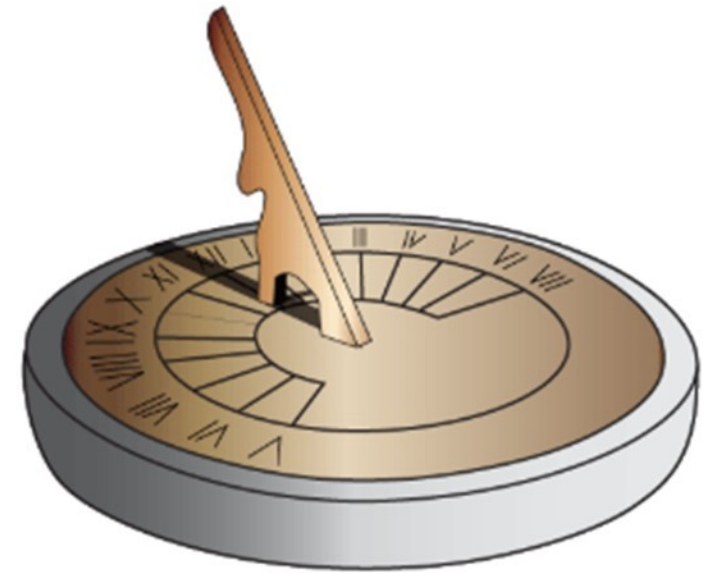
# BACK YARD SUN DIAL

## What You Need

- A straight stick about 60cm long
- Some small rocks or pebbles
- A watch
- Chalk or marker pen (optional)

## What To Do

- Find a sunny spot in your back yard and push the stick vertically straight into the ground.
- Start in the morning when the sun is up. At 7am use a rock or pebble to mark where the shadow of your stick falls. Come back at 8am, 9am, 10am and so on throughout the day, and mark where the stick's shadow falls with a rock or pebble each time. Continue to mark the shadow every hour until there is no more daylight left.
- You may wish to use chalk or a marker pen to record the time they were placed on each rock or pebble.
- By the end of the day your sun dial will be complete.



# BENDY BONES

## What You Need

- Clean chicken bones (the thigh bones are good to use)
- Vinegar
- Glass jar

## What To Do

- Wash your chicken bones thoroughly to remove any meat and gristle.
- Place your bones into the glass jar and pour in enough vinegar to submerge the bones completely.
- Leave the jar to sit in a safe place out of the sun for a week.
- After a week, rinse off the bones and find out what happens when you try to bend them.



# DANCING LIQUID

## What You Need

- Flour
- Water
- Food Colouring
- Thin plate
- Large speaker

## What To Do

- Mix some flour and water together to form a liquid with a paint-like consistency. Add a few drops of food colouring and stir through.
- Pour a layer of the liquid onto a thin plate and then place the plate on top of the large speaker (ask an adult for help with this step so you don't spill the liquid on the speaker).
- Turn on some music and watch your liquid dance.
- Play different kinds of music to see how the dancing changes!





# JELLO LENSES

## What You Need

- 1 packet of jelly crystals. Light colours (like lemon or lime) work better because you can see through them more clearly.
- 3/4 cup of boiling water
- Mixing bowl
- Several different sized, round-bottomed measuring spoons and measuring cups
- A paper towel
- A baking tray
- A clear glass plate or bowl that you can see through



## What To Do

- Ask an adult to help you with this step as there's boiling water involved. Pour the jelly crystals into the mixing bowl and pour the hot water over them. Stir until all the crystals have dissolved. Let the liquid cool for 10 minutes.
- Put some paper towel on the bottom of your tray and lay out your different sized measuring spoons and cups. Gently pour some of the jelly liquid into each of your spoons and cups to make the lenses. Carefully transfer your tray to the fridge for 4 hours to let the lenses set.
- After 4 hours, very gently remove the lenses from the cups and spoons. Wet your hands in the sink before you touch the lenses so they won't stick to your hands while you remove them.
- Add a small amount of water to the bottom of the glass plate or bowl. Then place a lens inside, flat side down.
- Now move the bowl over different things to see them up close!

# VOLCANIC EXPLOSION!

**NOTE:** This is an outdoor experiment due to the mess it will make.

## What You Need

- 10ml dishwashing liquid
- 100ml cold water
- 400ml white vinegar
- Food colouring
- Baking soda slurry (fill a cup 1/2 full of baking soda, then fill the rest of the way with water)
- 1 empty clean 2 litre plastic softdrink bottle

## What To Do

- Combine the vinegar, water, dishwashing liquid and 2 drops of food colouring in the empty softdrink bottle.
- Use a spoon to mix the baking soda slurry until it is all a liquid.
- Eruption time!! Ask an adult to help you with this step - pour the baking soda slurry into the softdrink bottle very quickly and take a few big steps back to watch the explosion when the liquids combine.



# WATER FIREWORKS

## What You Need

- Water
- Oil
- Food colouring
- 2 tall glasses
- A fork

## What To Do

- Fill one glass almost to the top with room-temperature water.
- Pour 2 tablespoons of oil into the other glass.
- Add 2 drops of food colouring to the glass with the oil.
- Using the fork, stir the oil into the food colouring. Stop once you break the food colouring into smaller drops.
- Pour the oil and colouring mixture into the glass with the water in it.
- Now watch! The food colouring will slowly sink in the glass, and each droplet will expand outwards as it falls, appearing to explode just like fireworks.

