

Superheroes
All Keystages
Monday - Science

Here are some experiments that might explain some superhero powers.

KS1 - After you have done the experiments, draw a picture of what happened.

KS2 - After you have done the experiments, write down what happened.

KS3 - After you have done the experiments, write up your experiment. Remember to include: what instruments you need, the method, your findings.

KS4 - After you have done the experiments, write up your experiment. Remember to include: what instruments you need, the method, your findings, a scientific explanation of what happened.

Experiment 1 - Aquaman's Waterbending

Equipment:

- A balloon
- A cup full of water
- A container to pour the water into

Description:

One of Aquaman's powers is control over water.

1. Take a balloon and rub it against your head for around 30 seconds.
2. Do not touch the balloon against anything but your head.
3. Ask somebody else to slowly pour water from the cup to the other container.
4. Move the balloon close to the water but do not touch the two together.
5. What happens to the water?

Experiment 2 - Superman's Heat Vision

Equipment:

- Sunlight on a hot sunny day
- Magnifying glass
- 1 ice cube (2 ice cubes if you are doing this indoors)
- You might need a parent to help you.

Description:

1. find a clear sunny spot
2. Use a magnifying glass to find the light spot.
3. Put the ice cube under the point of light.
4. What happens to the ice cube?

Experiment 3 - Storm Flying & levitating using wind

Equipment:

- Hairdryer
- Ping pong ball

Description:

1. Look at the ping pong ball. What happens to it if you let it go. Why does the ball fall?
2. Point the hairdryer toward the sky and turn it on.
3. Place the ping pong ball in the middle of the air.
4. What happens?
5. You could get the ping pong ball to fly around the room using the hairdryer.

Experiment 4 - Creating Lightning

Equipment:

- Aluminum pie plate
- Styrofoam (the kind they pack with electronics)
- Glue
- Ballpoint pen
- Thumbtack
- Wool sock

Description:

1. Pierce the center of the pie plate with a thumbtack from the bottom up.
2. Spike the bottom of the pen on top of the thumbtack.
3. Glue it in place so it stands straight up.
4. Rub the wool sock back and forth across the styrofoam to begin creating a charge.
5. Grab the pen and treat it like a handle to lift the plate carefully on top of the Styrofoam. Make sure nobody touches the pie plate. If they do, the experiment won't work.
6. Make sure the room is completely dark. Close all curtains, and shut off all the lights. Get ready for the lightning!
7. Choose who he wants to strike with his self-made "lightning." The chosen assistant will slowly bring her finger closer and closer to the aluminum plate. Then...ZAP!
8. A small bolt of lightning should be visible to all, and whoever touched the pan will have felt a tiny spark. It will be audible if everyone is very quiet.