

Make your own LIGHTNING

Biomimicry is a practice that learns from and mimics the strategies found in nature to solve human design challenges. Engineers harness the power of static electricity in photocopiers, automotive paint, and operating rooms.

Lightning is static electricity! When the air moves around in the sky and the clouds rub against each other, they pick up or release electrons. If the electrons are freed by touching another cloud, that's when you see lightning.

Materials

- 1 Ballon
- Metal Paper Clips
- Modelling Clay
- 1 Woollen Sweater



Go into a dark room. Blow up the ballon and tie a knot in the end.



Make a stand with the modelling clay and poke the paperclips into it.



Rub the balloon on the woollen sweater for 20 seconds.

Turn off the light and slowly move the balloon towards the paper clips, without letting them touch.



What happened?

You made lightning!
You can repeat the experiment as often as you want.

Why?

As you rub the sweater, the balloon “pulls” tiny pieces of matter from it – these are called “electrons.” The balloon then tries to get rid of the excess electrons. It can free them slowly into the air, but if you put it next to a metal object, like a paper clip, it will let all the electrons go at once! And you will see a small flash of lightning. This is called “static electricity.”

To learn more, visit <https://www.weareteachers.com/best-weather-activities/>



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