

DO ~~NOT~~ TRY THIS AT HOME

The Light Collection

INTERNATIONAL YEAR OF LIGHT 2015

What you need: • A clear plastic bottle • A torch
• Kitchen foil • Sticky tape • A dark room with a sink

Thanks for pouring me a drink Milo but let me show you how to pour light!

Wrap the bottle in kitchen foil, leaving the bottom bare.

Vic Le Billon

Fill the bottle with water, ...

... switch on your torch ...

'click'
...and turn off the lights.

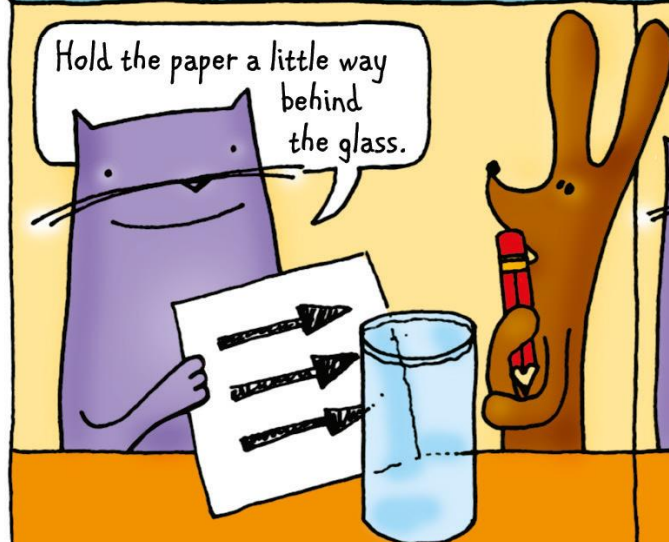
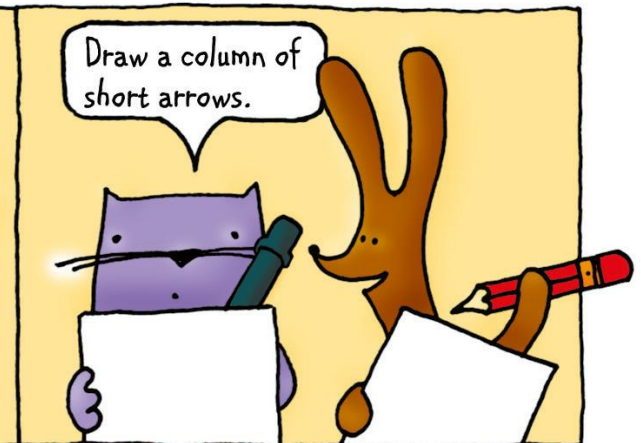
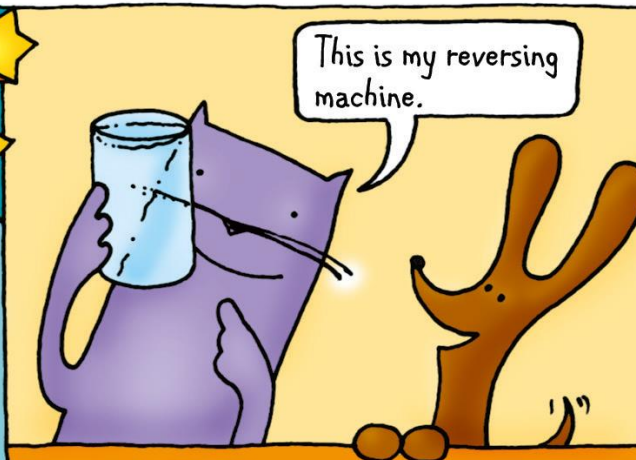
Shine the torch through the bottom of the bottle and start pouring the water into the sink. Keep the torch close to the bottle at all times.

Almost all the light from the torch is reflected every time it hits the edge of the stream of water, so the light follows the path of the water and you see a spot of light where the water hits the sink.

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What you need: • a glass of water • a piece of paper
• a marker pen



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What you need: • a large clear, straight-sided glass
• water • milk • teaspoon • torch • darkened room

Do you want to see my homemade sunset?

Fill the glass about $\frac{2}{3}$ full of water...	... add half a teaspoon of milk...	... and stir.

'CLICK

In a darkened room, shine the torch down onto the top of the water whilst looking through the side of the glass. Can you see the blue colour?

Then try shining the torch through the side of the glass whilst looking through the opposite side. What colours can you see now?

Finally, shine the torch up through the bottom of the glass and peer down through the water. What a lovely sunset!

The milk particles in the water scatter the light from the torch like dust and molecules in the atmosphere scatter light from the sun. The further the light has to travel through the water, the more of the blue light has been scattered, leaving only red light for you to see. Just like at sunset.

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What you need:

- Party balloon
- Energy saving light bulb

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Don't worry about the power cut Milo, I can produce some light for you!



Blow up the balloon and tie the end.




Rub the balloon against your hair or jumper.

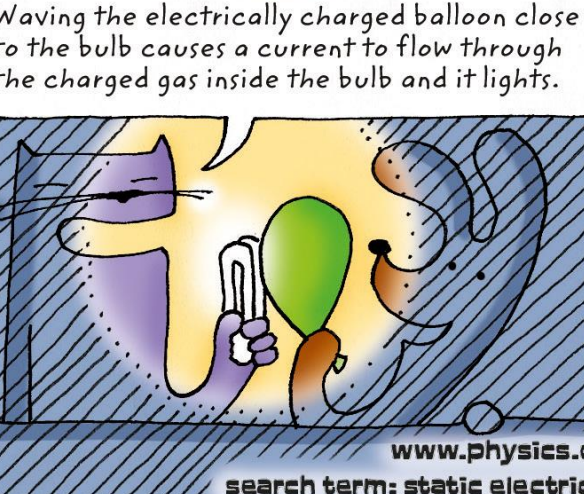


Vic Le Billon

In a dark room, hold the bulb in one hand and move the balloon back and forth close to it.



Waving the electrically charged balloon close to the bulb causes a current to flow through the charged gas inside the bulb and it lights.



www.physics.org
search term: static electricity