How do twinkly lights light up?

Click! Whoa! How do twinkly lights light up?



Why?

1. **The plug gives a push.**
   Look inside the wire. It is full of tiny electrons! When the lights are plugged in, the plug gives them a push, and the push runs through the whole wire.
2. **The push only works in a loop.**
   Out of the plug, along the wire, through every little light, and back to the plug again. A loop like this is called a circuit. If there is a gap anywhere in the loop, the push stops, and the lights go dark.
3. **A tiny chip makes the light.**
   At the bottom of each little light sits a tiny chip, called an LED. When electrons get pushed through the chip, they drop down, like jumping off a step. Each drop gives off a tiny flash of light. Lots and lots of flashes, and the light glows!

Try it! Find the tiny chip

You need: a grown-up and a string of lights

1. With a grown-up, unplug the lights.
2. Look closely at one little light.
3. Can you see the tiny chip at the bottom?

What happened? That is where the glow comes from!

Video + more questions:
whywhywhykids.com/lights

scan with a grown-up