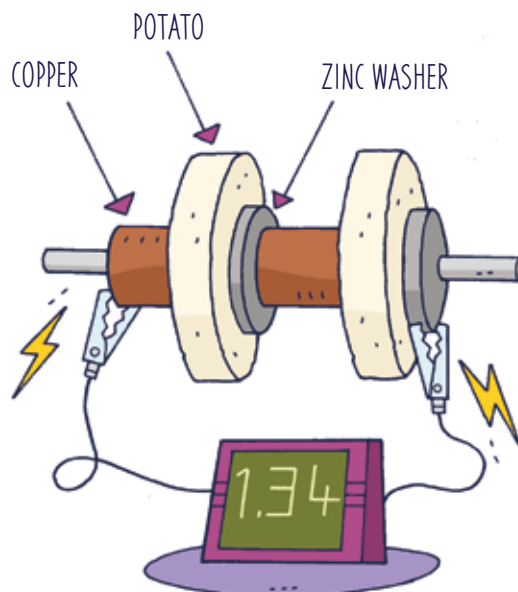


MAKING A VEGETABLE BATTERY

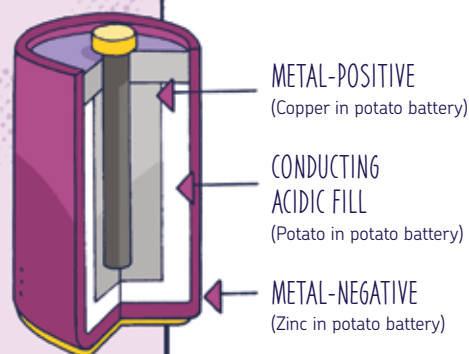
- ⚡ Slide one zinc washer, then one piece of potato then one piece of copper onto the kebab skewer
- ⚡ Connect one lead from the Digital Volt Meter onto the copper, and one onto the zinc washer
- ⚡ Press the sandwich of copper, potato and zinc together
- ⚡ Record the voltage

Add a second sandwich of zinc, potato and copper and record the voltage, repeat with three...



HOW DOES IT WORK?

- ⚡ Potatoes (and other fruit and vegetables) contain acids and conduct electricity
- ⚡ The acid reacts with the copper and zinc causing a chemical reaction called corrosion, which releases electrons (Metal + acid → metal salt + hydrogen)
- ⚡ This creates a potential difference (voltage) between the copper and the zinc causing electrons in the wire to flow, creating an electrical current
- ⚡ The electrical current provides the power to run electrical equipment



EXTENSION ACTIVITIES

Observe and record what happens when you use:

- ⚡ Different numbers of copper/potato/zinc units
- ⚡ Different vegetables and fruits - what happens to the voltage
- ⚡ Different thicknesses of potato
- ⚡ Different metals - iron instead of zinc

Can you use the power to light an LED, or LCD Clock?

