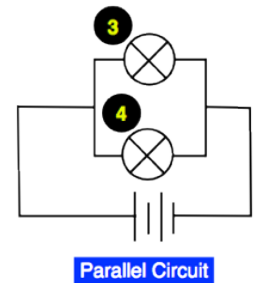
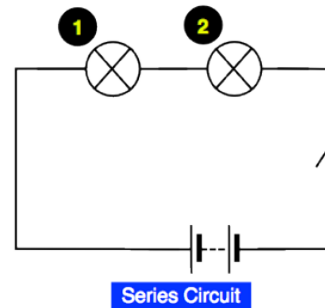


KEY FACTS

-
- Voltage is a measure of the power of a cell to produce electricity
- Voltage is a measure of the “push” of electric current, not the size of the electric current
- As the number and voltage of cells in a circuit increases, the brightness of a bulb or the volume of a buzzer will increase
- Too high a voltage may “blow” the bulb or the buzzer
- Circuits can be represented in diagrams, with symbols for battery, bulb, motor, buzzer and wire
- When a circuit is complete the components will function
- Two bulbs in a circuit can be wired up to create a series circuit or a parallel circuit
- If one bulb blows in a series circuit, the other will not shine as the circuit has been broken
- If one bulb blows in a parallel circuit, there will still be a complete circuit for the other bulb so it will continue to shine
- Solar energy is generated from light, not only from the Sun.

CIRCUITS



WORKING SCIENTIFICALLY



OBSERVING



PREDICTING



COLLECTING AND RECORDING DATA



TESTING/EXPERIMENTING



PRESENTING FINDINGS



WRITING SCIENTIFICALLY

KEY VOCABULARY



-
- Component** – something that makes up a part of a circuit such as a bulb or wire.
- Complete** – something that doesn’t have any gaps in it.
- Electrons** – what makes up electricity, negatively charged particles.
- Fuse** – a safety device that will melt and make a break in a circuit if there is too much electricity.
- Blow** – what happens when a bulb has too much electricity going through it.
- Filament** – the very thin wire, like that in a fuse, that is inside a bulb.
- Cell** – a single battery.
- Battery** – a series of cells.
- Renewable** – can be used again or generated again.
- Solar** – generated from light.

SIGNIFICANT PEOPLE



Maria Telkes was a Hungarian biophysicist and inventor, nicknamed “the Sun Queen” after her career in solar energy research. She invented an emergency desalination kit that used solar power to make seawater drinkable for pilots and sailors during World War II.



Annie Easley was an American computer and rocket scientist. Her work included solar and wind projects and battery technology that was used for early hybrid vehicles.