Burwell Village College Primary

Electrical Systems – Buzzer Games
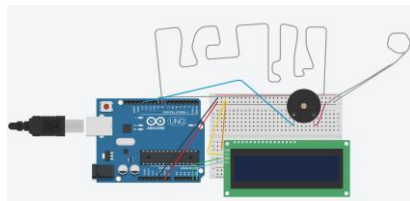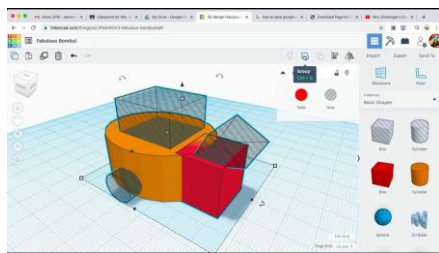
Vocabulary

circuit	a path in which energy flows
voltage	the amount of energy available to move electric charges from one point to another
switch	a component that opens or closes a circuit
prototype	a first or preliminary version of a product – a working model
mock-up	a visual representation of the product idea that depicts what the finished idea will look and feel like
CAD (Computer Aided Design)	software used to design products on a computer
sustainable products	products that minimise waste and reduce the use of non-renewable resources
target market	a particular group of consumers at which a product or service is aimed

Switches break the circuit and stop the electricity from flowing.

A series circuit has one path for the electricity to flow.

A parallel circuit has more than one path so components can work independently.

Adding more components (bulbs or buzzers) can make the current weaker. You might need to increase the voltage to keep everything working.

You can use buzzers, bulbs, wires, crocodile clips, and switches to build your electrical game.
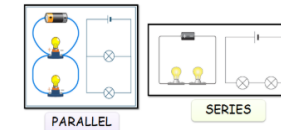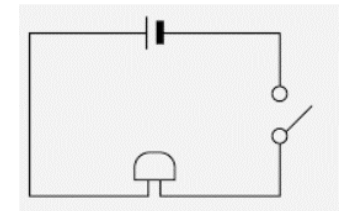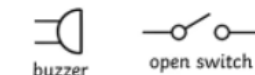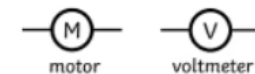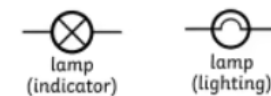
Tinkercad is a free, browser-based 3-D modelling program that helps designers to create digital designs. These designs can be used by 3-D printers. It can also be used for electronic circuity and coding as well.

Circuit symbols

- lamp (indicator)
- lamp (lighting)
- motor
- voltmeter
- wire
- ammeter
- buzzer
- open switch
- cell
- battery
- closed switch

The loop wand creates the switch, which completes the circuit, allowing electricity to flow and set off the buzzer.