



Y4 Thinking like a designer

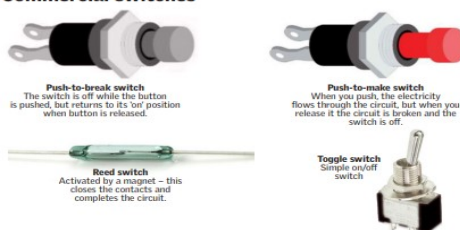
Making a lighthouse that includes an electrical circuit

Key Knowledge:

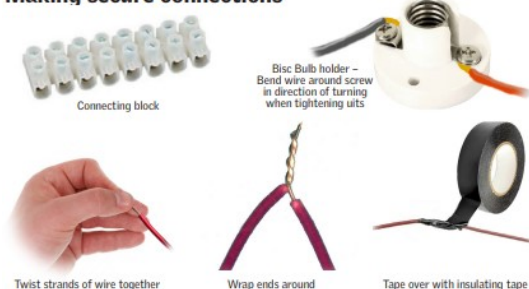
- To know how to be safe around electricity.
- To know the difference between conductors and insulators.
- To know that switches open and close a circuit.
- To understand which materials that can use to make their own switch.
- To know how to think through steps when designing and making the lighthouse.
- To know what materials to use to create their lighthouse.

Electrical switches:

Commercial switches

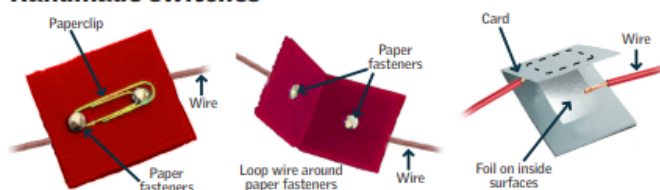


Making secure connections



Con-

Handmade switches



Connections

Key vocabulary

- series circuit, fault, connection, toggle switch, push-to-

Learning Questions

How do battery powered products work?

How is a simple series circuit constructed?

What are electrical switches and how do they work?

How many different types of switches are there and how might each be useful in different types of products?

Can I design and create a switch?

Can I look at different methods for constructing and attaching the various components of my design?

Can I design a light house that includes an electrical circuit?

Can I make my lighthouse?

Can I evaluate my lighthouse?