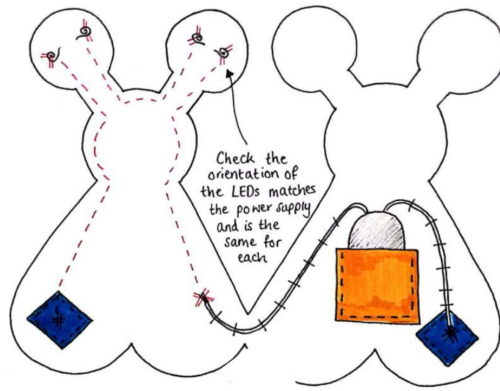




E-TEXTILES

Plush monster

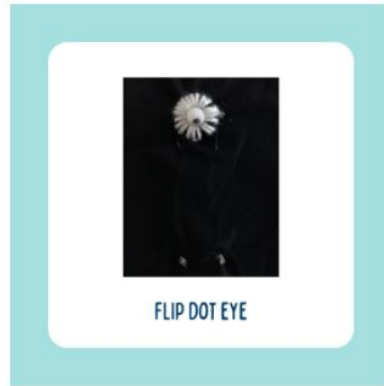
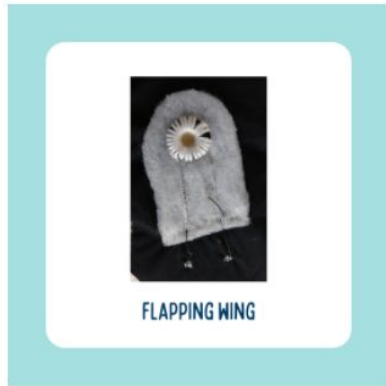


Overview of day 3: The plush monster activity

Components with electromagnetism

Day 4: We are looking at components which use electromagnetism

Components with electromagnetism



The components that we will be building will be the flapping wing and the flip dot eye. They both have an electromagnet inside them which allows them move and interact.

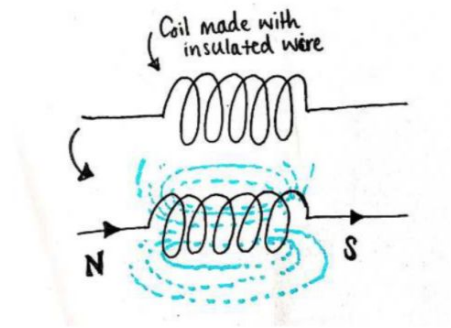
What is an electromagnet?

Question to the participants

What is an electromagnet?

An electromagnet is created when **current** runs through a **coiled wire**. This creates an electromagnetic field around the coil. The more turns the coil has, the stronger the electromagnet.

The electromagnet is **polarised** with a north and south pole. Opposite poles attract and the same poles repel. The polarisation of the electromagnet can be changed by changing the direction of the current flow.



Following this slide, there is further discussion of how the flip dot eye and flapping wing use an electromagnet and how an electromagnet is created in each of these designs. Key things to remember:

- You can increase the strength of an electromagnet by increasing the number of turns
- You can increase the strength of the electromagnet by increasing the current that runs through it
- You can change the polarisation of the electromagnet by changing the direction of the current which runs through it