Key Skills

1. Observe – how certain objects repel or attract one another.
2. Experiment – making certain objects move towards/away from each other by using static electricity charges.
3. Predict – what will happen when certain charged objects move towards each other.
4. Design – the game by drawing a diagram, listing needed materials & tools and labelling.
5. Test – the game against the design criteria by getting peers to try it out.
6. Adapt - based on peer feedback.
7. Construct – the game based ont e' using materials and tools safely.
8. Check – that it is assembled securely, all parts fit in the box and that only the parts that were intended to move do.
9. Evaluate– how my design and construction went.

Websites/Signposting/Connection to a famous person

Some general electricity knowledge with the storybots

Learn about Ben Franklin

Respect, Believe, Achieve

Key Knowledge

All objects have a positive and negative charge. When you rub objects together the charges pass through each other (transference). After rubbing there is a charge imbalance.

Positive and positive – repel

Positive and negative – attract

Electrostatic– when you rub a balloon on your body or go down a plastic slide you create an electrostatic charge. When you rub a balloon on your hair they stand up as they are pushing away from each other.

Previous Learning

♦ None linked to this topic

What I will know/be able to do by the end

I can describe what electricity is and how it moves through attraction or repulsion.

I can make static electricity myself.

I can make objects move in the way that I want by using static electricity.

I know who my target audience are and I can remember what my design criteria is.

I can design a game that is based on static electricity (using the game design booklet).

I can create rules and instructions for my game.

I can test how my game works again the design criteria.

I can do 'market research' by asking four peers to try out my game and then give me feedback, which I consider when thinking about making any adaptations.

I can construct my game based on the design and the peer feedback given (any needed adaptations made) and use the tools/materials safely.

I can explain how my game fits in with the success criteria.

I can explain how static electricity is used in my game.

Vocab/Key Words

Attract– where there is an invisible power that pushes or pulls an object towards another.

Component– one or more parts of which something is made.

Constructive criticism– suggestions given in a kind way on how something can be made better, rather than just saying what is

Design criteria– a set of rules to help designers focus their ideas and test their success.

Evaluation– when you look at the good and the bad points about something and then think about how you can make it better.

Feedback– Information about how good or useful something is .

Motion– the movement an object makes when controlled by an input or output (eg left, right, up or down).

Repel– where there is an invisible power that pushes or pulls an object away from another object.

Target audience– a person or particular group of people at whom a product is aimed.

Test– to find out whether something works or not.

STATIC ELECTRICITY