



Design and Technology Topic: Design & create a spinner.

Year: 3 Term: Autumn 2

Key Knowledge/Content:

- To know that mechanisms are a collection of moving parts that work together as a machine to produce movement.
- To know that there is always an input and output in a mechanism.
- To know that an input is the energy that is used to start something working.
- To know that an output is the movement that happens because of the input.
- To know that a linkage mechanism is made up of a series of levers.

Links to:

Prior learning:

The children designed, made and evaluated a puppet. They explored a range of sewing techniques and applied them when making their product.

Future learning:

The children are going to design, make, and evaluate a volcano.

Key vocabulary with definition:

Prior vocabulary:

- Thumbnail sketch- A small quick drawing that can help you to plan out a larger painting or drawing.
- Motion – The action or process of moving or being moved.
- Functional - Of or having a special activity, purpose, or task.
- Exploded diagram - Show how a product can be assembled and how the separate parts fit together, with dotted lines showing where the parts slide into place.

New vocabulary:

- Mechanism - A collection of moving parts that work together as a machine to produce movement.
- Technique – The way in which something is done.
- Appealing - Someone or something who is able to attract interest or is easy to like.
- Pivot - A fixed point supporting something that turns or balances.

By the end of this unit

All children can: recognise what tools, materials and techniques are used to make a successful product and choose and explain what materials they have used, explaining their reasoning.

Most children can: explain what a product needs for it to function and demonstrate how to test a product.

Some children can: explain how their product is designed for a specific user.

Background understanding for teachers and parents:

The children are going to research, design, make and evaluate a spinner. The children will explore different spinners, explore materials and evaluate their product.

Curriculum Driver (one):

Communication

Evidence outcome:

The children are going to communicate the mechanical system and discuss a variety of methods to test their product.