

## Knowledge Organiser

**Year: 1**

**Subject: Design & Technology**

**Unit: Playgrounds**

### Overview

Children will be learning about playground equipment and the materials they are made from. They will make models focussing on strength and sturdiness. The children will design and make a piece of playground equipment.

### What should I already know?

### Vocabulary:

#### Design

- Can identify the key features of an existing product and generate ideas to make their own product
- Can make a plan of a picture with a mechanism using pictures and labels and list the materials they will need

#### Make

- Can cut out using scissors
- Can join components to make a wheel mechanism and follow a design

#### Working with tools

- Join two pieces of paper/card together with glue and select appropriate tools and use them safely

#### Evaluate

- Can identify what has gone well with their product and how they could improve their work
- Say what they like and feel about their own and others' work

#### Technical Knowledge

- Know that construction means to make something (EYFS)
- Know what a pivot and lever are and how they are used to make a mechanism work.

#### Key

construction

to build or make something

design

a drawing to show what something looks like

evaluate

to make a judgement about something

demonstrate

to show

join

to link two items together

identify

to find

equipment

tools you need to construct something

frame

a rigid structure that surrounds something

spring

an elastic device that can be pressed or pulled but returns to its original shape when released

### What will I know by the end of the unit?

### Design

- Can identify the key features of an existing product
- Can make a plan of an existing product and label it
- Can generate ideas for different ways of strengthening models to make them sturdy
- Can say whether their models are strong or not.
- Can make a labelled plan of their design and list the tools and materials they need.

### Make

- Can cut out using scissors
- Can follow a design to make a piece of playground equipment
- Can join materials together to make a sturdy structure

### Working with tools

- Join two pieces of paper/card together with glue and tape
- Can select appropriate tools and use them safely

### Evaluate

- Can identify what has gone well with their product.
- Can say how they could improve their work
- Say what they like and feel about their own work
- Can say what they like about others' work and give them positive feedback (I like.....about your product)

### Technical Knowledge

- Know that to make a structure more stable it needs reinforcing e.g., more tape to hold it together



### supplementary

balance

put (something) in a steady position so that it does not fall

spin

turn or cause to turn or whirl round quickly

central point

from the centre of something

smooth surface

having an even and regular surface; free lumps, or indentation

sturdy

strongly and solidly built

wide-base

a base which is wide to improve stability