

# Design and Technology Long Term Overview- Year 2

Year 2	Autumn
	<p data-bbox="1048 331 1415 491" style="text-align: center;"><u>Autumn 1</u> DT Focus Mechanisms <b>Making a Moving Monster</b></p> <p data-bbox="331 497 584 534"><u>Unit Objectives:</u></p> <ul data-bbox="383 544 1171 667" style="list-style-type: none"><li>• To look at objects and understand how they move</li><li>• To explore different design options</li><li>• To make a moving monster</li></ul> <p data-bbox="331 722 439 759"><u>Design</u></p> <ul data-bbox="383 769 1644 940" style="list-style-type: none"><li>• I can understand that linkages use levers and pivots to create motion.</li><li>• I can think of two of my own points to add to the class design criteria.</li><li>• I can draw two moving monster designs that meet all points of my design criteria.</li><li>• I can design the linkage I will use to make my monster move.</li></ul> <p data-bbox="331 995 813 1032"><u>National Curriculum Objectives:</u></p> <ul data-bbox="383 1042 2112 1165" style="list-style-type: none"><li>• Design purposeful, functional appealing products for themselves and other users based on design criteria.</li><li>• Generate, develop, model, and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.</li></ul> <p data-bbox="331 1174 421 1211"><u>Make</u></p> <ul data-bbox="383 1220 1673 1343" style="list-style-type: none"><li>• I can make linkages by connecting levers and pivots.</li><li>• I can understand that materials can be selected according to their characteristics.</li><li>• I can design and make the features of my monster.</li></ul>

# Design and Technology Long Term Overview- Year 2

## National Curriculum Objectives:

- Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.

## Testing and Evaluation

- I can evaluate how functional my monster is and whether it meets the Design Criteria.

## National Curriculum Objectives:

- Evaluate their own ideas and products against design criteria.

## **Spring**

### Spring 1

**DT Focus**

**Mechanisms**

**Fairground Wheel**

## Unit Objectives:

- To explore wheel mechanisms and design a Ferris wheel.
- To select appropriate materials
- To build and test a moving wheel
- To make and evaluate a structure with a rotating wheel

## Design

- I can describe how axles help wheels to move a vehicle.
- I can evaluate different designs.
- I can design and label a working wheel.

## National Curriculum Objectives:

- Generate, develop, model, and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.

# Design and Technology Long Term Overview- Year 2

## Make

- I can build a stable structure.
- I can test elements of my design.
- I can adapt my design as necessary.
- I can make the wheel rotate.

## Testing and Evaluation

- I can test elements of my design.
- I can evaluate a wheel mechanism and adapt it as necessary.

## National Curriculum Objectives:

- Evaluate their own ideas and products against design criteria.

## **Summer**

**DT Focus**

**Structures**

**Baby Bear's Chair**

## Termly Objectives:

- To explore the concept and features of structures and the stability of different shapes.
- To understand that the shape of the structure affects its strength.
- To make a structure according to design criteria.
- To produce a finished structure and evaluate its strength, stiffness and stability.

## Design

- I can identify natural and man-made structures.
- I can understand what is meant by stability and identify when a structure is more or less stable than another.
- I can explain that shapes and structures with wide, flat bases or legs are the most stable.

## Design and Technology Long Term Overview- Year 2

### Make

- I can remember that chairs are structures that need to be strong, stiff and stable.
- I can create joints and structures from paper, card and tape.

### National Curriculum Objectives:

- Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.

### Testing and Evaluation

- I can identify that the chair I design needs to be strong, stiff, stable and support Teddy.
- I can evaluate my structure according to the design criteria.

### National Curriculum Objectives:

- Explore and evaluate a range of existing products.
- Evaluate their ideas and products against design criteria.