



## Design and Technology Progression at Larkfields Infant School



Key Areas	Reception	Year 1	Year 2
Pre-Skills	<p><u>Workshop: Junk Model</u></p> <ul style="list-style-type: none"><li>• We will explore and investigate the tools and materials in the junk modelling area.</li><li>• We will develop scissor skills.</li><li>• We will investigate cutting different materials.</li><li>• We will learn how to plan and select the correct resources needed to make a model.</li><li>• We will verbally plan and create a junk model.</li><li>• We share a finished model and talk about the processes in its creation.</li></ul> <p>We will explore different ways to temporarily join materials together.</p>		

## Mechanisms

### Mechanisms Moving Christmas Card

- We will identify whether a mechanism is a side-to-side slider or an up-and-down slider and determine what movement the mechanism will make.
- We will clearly label drawings to show which parts of our design will move and in which direction.
- We will make a picture, which meets the design criteria, with parts that move purposefully as planned.
- We will evaluate the main strengths and weaknesses of our design and suggest alterations.

### Mechanisms Wheels and Axles

- We will understand how wheels move.
- We will know that in order for a wheel to move it must be attached to an axle.
- We will draw and label a diagram of an axle, wheel and axle holder.
- I know that a wheel needs an axle in order to move
- We will fix a design so that the wheel can move.
- We will use appropriate vocabulary to describe which parts are moving or not.
- We will know what makes a wheel and an axle work.
- We will design a moving vehicle
- We will label our designs using appropriate vocabulary.
- We will make a wheel and axle mechanism.

We will evaluate our designs to make it even better.

### Mechanisms Moving Monster

- We will identify the correct terms for levers, linkages and pivots.
- We will analyse popular toys with the correct terminology.
- We will create functional linkages that produce the desired input and output motions.
- We will design monsters suitable for children, which satisfy most of the design criteria.
- We will evaluate our two designs against the design criteria, using this information and the feedback of our peers to choose our best design.
- We will select and assemble materials to create our planned monster features.
- We will assemble the monster to our linkages without affecting their functionality.

### Mechanisms Fairground Wheel

- We will design and label a wheel.
- We will consider the designs of others and make comments about their practicality or appeal.
- We will consider the materials, shape, construction and mechanisms of their wheel.
- We will label their designs.
- We will build a stable structure with a rotating wheel.
- We will test and adapt our designs as necessary.
- We will follow a design plan to make a completed model of the wheel.

Structures	<p><b><u>Structures: Boats</u></b></p> <ul style="list-style-type: none"> <li>• We will understand what waterproof means and to test whether materials are waterproof.</li> <li>• We will test and make predictions for which materials float or sink.</li> <li>• We will learn about the different features and structures of boats and ships.</li> <li>• We will investigate how the shape and structure of boats affects the way they move.</li> <li>• We will design a boat.</li> <li>• We will create a boat based upon our own design.</li> </ul>	<p><b><u>Structures Windmill</u></b></p> <ul style="list-style-type: none"> <li>• We will identify some features that would appeal to the client (a mouse) and create a suitable design.</li> <li>• We will explain how our design appeals to the mouse.</li> <li>• We will make stable structures, which will eventually support the turbine, out of card, tape and glue.</li> <li>• We will make functioning turbines and axles that are assembled into the main supporting structure.</li> <li>• We will say what is good about our windmill and what we could do better.</li> </ul>	<p><b><u>Structures Baby Bear's Chair</u></b></p> <ul style="list-style-type: none"> <li>• We will identify man-made and natural structures.</li> <li>• We will identify stable and unstable structural shapes.</li> <li>• We will contribute to discussions.</li> <li>• We will identify features that make a chair stable.</li> <li>• We will work independently to make a stable structure, following a demonstration.</li> <li>• We will explain how our ideas would be suitable for Baby Bear.</li> <li>• We will produce a model that supports a teddy, using the appropriate materials and construction techniques. <ul style="list-style-type: none"> <li>• We will explain how we made our model strong, stiff and stable</li> </ul> </li> </ul>
Textiles	<p><b><u>Textiles: Bookmarks</u></b></p> <ul style="list-style-type: none"> <li>• We will develop threading and weaving skills.</li> <li>• We will practise and apply weaving skills to a specific material e.g. paper.</li> <li>• We will practise and apply threading skills with specific materials e.g. hessian and wool.</li> <li>• We will use threading or sewing to design a product (bookmark).</li> <li>• We will create a textiles product (bookmark) following our own design.</li> </ul> <p>We will reflect on how we have achieved our aims.</p>	<p><b><u>Textiles Puppets</u></b></p> <ul style="list-style-type: none"> <li>• We will join fabrics together using pins, staples or glue.</li> <li>• We will design a puppet and use a template.</li> <li>• We will join our two puppets' faces together as one.</li> <li>• We will decorate a puppet to match our design.</li> </ul>	<p><b><u>Textiles Pouches</u></b></p> <ul style="list-style-type: none"> <li>• We will sew a running stitch with regular-sized stitches and understand that both ends must be knotted.</li> <li>• We will prepare and cut fabric to make a pouch from a template.</li> <li>• We will use a running stitch to join the two pieces of fabric together. <ul style="list-style-type: none"> <li>• We will decorate our pouch using the materials provided.</li> </ul> </li> </ul>

## Food

### Food: Soup

- We will explore fruits and vegetables and the differences between them.
- We will use adjectives to describe how fruits and vegetables look, feel, smell and taste.
- We will listen to and recall elements from the story 'The Best Pumpkin Soup.'
- We will explore a pumpkin and describe it using the five senses.
- We will design a fruit and vegetable soup recipe.
- We will practise cutting with a knife.
- We will learn how to use a knife safely.
- We will safely use tools to prepare ingredients.
- We will describe the finished product and evaluate the process.
- We will design food packaging.

### Food Fruit and Vegetables

- We will describe fruits and vegetables and explain why they are a fruit or a vegetable.
- We will name a range of places that fruits and vegetables grow.
- We will describe basic characteristics of fruit and vegetables.
- We will prepare fruits and vegetables to make a smoothie.

### Food A Balanced Diet

- We will name the main food groups and identify foods that belong to each group.
- We will describe the taste, texture and smell of a given food.
- We will think of four different wrap ideas, considering flavour combinations.
- We will construct a wrap that meets the design brief and our plan.