



KS1 Cycle A

<b>Design and Technology KS1 Cycle A</b>			
<b>Cooking and nutrition</b> A balanced diet	<b>Structures:</b> Baby Bears Chair	<b>Mechanisms/Mechanical systems:</b> Fairground wheel/Making a moving monster	<b>Textiles:</b> Pouches
<b>Cooking and nutrition</b> <u><b>Composite piece</b></u> To design and make a healthy wrap.	<b>Structures</b> <u><b>Composite piece</b></u> To design a finished structure (chair) and evaluate its strength, stiffness and stability.	<b>Mechanisms/Mechanical systems</b> <u><b>Composite pieces</b></u> To build and test a moving wheel To design and make a moving storybook.	<b>Textiles</b> <u><b>Composite piece</b></u> To design and make a pouch using fabric glue and stitching.
<b>Subject Specific Vocabulary</b>			
<p><b><u>Cooking and nutrition: A balanced diet</u></b>            Alternative, Diet, Balanced diet, Evaluation, Expensive, Healthy, Ingredients, Nutrients, Packaging, Refrigerator, Sugar, Substitute</p> <p><b><u>Structures: Baby Bears Chair</u></b>            Function, Man-made, Mould, Natural, Stable, Stiff, Strong, Structure, Test, Weak</p> <p><b><u>Mechanisms/Mechanical systems: Fairground wheel</u></b>            Axle, Decorate, Evaluation, Ferris Wheel, Mechanism, Stable, Strong, Test, Waterproof, Weak</p> <p><b><u>Mechanisms/Mechanical systems: Making a moving monster</u></b>            Evaluation, Input, Lever, Linear motion, Linkage, Mechanical, Mechanism, Motion, Oscillating motion, Output, Pivot, Reciprocating motion, Rotary motion, Survey</p> <p><b><u>Textiles: Pouches</u></b>            Accurate, Fabric, Knot, Pouch, Running-stitch, Sew, Shape, Stencil, Template, Thimble</p>			



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Skills		
Design	Make	Evaluate
<p><b><u>Cooking and nutrition</u></b> I can design a healthy wrap based on a food combination which works well together.</p> <p><b><u>Structures</u></b> I can generate ideas. I can communicate ideas using sketching and modelling. I can learn about different types of structures, found in the natural world and in everyday objects.</p> <p><b><u>Mechanisms/Mechanical systems: Fairground wheel</u></b> I can select a suitable linkage system to produce the desired motion. I can design a wheel.</p> <p><b><u>Mechanisms/Mechanical systems: Moving monster.</u></b> I can create a class design criteria for a moving monster. I can design a moving monster for a specific audience in accordance with the design criteria.</p> <p><b><u>Textiles</u></b> I can design a pouch.</p>	<p><b><u>Cooking and nutrition</u></b> I can slice food safely, using the bridge or claw grip. I can construct a wrap that meets a design brief.</p> <p><b><u>Structures</u></b> I can make a structure according to a design criteria. I can create joints and structures from paper/card and tape. I can build a strong and stiff structure by folding paper.</p> <p><b><u>Mechanisms/Mechanical systems: Fairground wheel</u></b> I can select materials according to their characteristics. I can follow a design brief.</p> <p><b><u>Mechanisms/Mechanical systems: Moving monster</u></b> I can make linkages using card for levers and split pins for pivots. I can experiment with linkages adjusting the widths, lengths and thicknesses of card used. I can cut and assemble components neatly.</p> <p><b><u>Textiles</u></b> I can select and cut fabrics for sewing. I can decorate a pouch using fabric glue or running stitch. I can thread a needle I can sew a running stitch, with evenly spaced, stitches to join fabric. I can neatly pin and cut fabric using a template.</p>	<p><b><u>Cooking and nutrition</u></b> I can describe the taste, smell and texture of fruit and vegetables. I can taste test food combinations and final products. I can describe the information that should be included on a label. I can evaluate which grip was most effective.</p> <p><b><u>Structures</u></b> I can explore the features of structures. I can compare the stability of different shapes. I can test the strength of my own structures. I can identify the weakest part of a structure. I can evaluate the strength, stiffness, stability of my own structure.</p> <p><b><u>Mechanisms/Mechanical systems: Fairground wheel</u></b> I can evaluate different designs. I can test and adapt a design.</p> <p><b><u>Mechanisms/Mechanical systems: Moving monster</u></b> I can evaluate own designs against a design criteria. I can use peer feedback to modify a final design.</p> <p><b><u>Textiles</u></b> I can troubleshoot scenarios posed by the teacher. I can evaluate the quality of stitching on others' work. I can discuss as a class the success of stitching against the success criteria. I can identify aspects of my peers work that they particularly like and explain why.</p>



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**Knowledge (I will know...)**

Technical	Additional
<p><b><u>Cooking and nutrition</u></b></p> <p>I know that ‘diet’ means the food and drink that a person or animal usually eats.            I understand what makes a balanced diet.            I know where to find the nutritional information on packaging.            I know that the five main food groups are: Carbohydrates, fruits and vegetables, protein, dairy and foods high in fat and sugar.            I understand that I should eat a range of different foods from each food group, and roughly how much of each food group.            I know that nutrients are substances in food that all living things need to make energy, grow and develop.            I know that ‘ingredients’ means the items in a mixture or recipe.            I know that I should only have a maximum of five teaspoons of sugar a day to stay healthy.            I know that many food and drinks we do not expect to contain sugar do; we call these ‘hidden sugars’.</p> <p><b><u>Structures</u></b></p> <p>To know that shapes and structures with wide, flat bases or legs are the most stable.            To understand the shape of a structure affects its strength.            To know that materials can be manipulated to improve strength and stiffness.            To know that a structure is something which has been formed or made from parts.            To know that a ‘stable’ structure’ is one which is firmly fixed and unlikely to change or move.            To know that a ‘strong’ structure is one which does not break easily.            To know that a ‘stiff’ structure or material is one which does not bend easily.</p> <p><b><u>Mechanisms/Mechanical systems: Fairground wheel</u></b></p> <p>To know that different materials have different properties and are therefore suitable for different uses.</p> <p><b><u>Mechanisms/Mechanical systems: Moving monster</u></b></p> <p>To know that mechanisms are a collection of moving parts that work together s a machine to produce movement.            To know that there is always an input and output in a mechanism.</p>	<p><b><u>Structures</u></b></p> <p>To know that natural structures are those found in nature.            To know that man-made structures are those made by people.</p> <p><b><u>Mechanisms/Mechanical systems: Fairground wheel</u></b></p> <p>To know the features of a ‘ferris wheel’ include the wheel, frame, pods, a base and an axle and an axle holder.            To know that it is important to test my design as I go along so that I can solve any problems that may occur.</p> <p><b><u>Mechanisms/Mechanical systems: Moving monster</u></b></p> <p>To know some real life objects that contain mechanisms.</p>



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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 as a result of the input.  
To know that a lever is something that turns on a pivot.  
To know that a linkage mechanism is made up of a series of levers.

### **Textiles**

To know that sewing is a method of joining fabric.  
To know that different stitches can be used when sewing.  
To understand the importance of tying a knot after sewing the final stitch.  
To know that a thimble can be used to protect my fingers when sewing.