

**DT – Year 2 – Spring 1**  
**Structures: making baby bears bed (4 lessons)**  
**Cooking and nutrition: A balanced diet (lesson 1 and 3)**

	<p><b>Previous Learning / sticky knowledge</b></p>	<p>Year 1: structures: constructing windmills  Identify some features that would appeal to the client (a mouse) and create a suitable design.  Explain how their design appeals to the mouse.  Make stable structures, which will eventually support the turbine, out of card, tape and glue.  Make functioning turbines and axles that are assembled into the main supporting structure. Say what is good about their windmill and what they could do better.</p> <p>This unit:  Identify man-made and natural structures.  Identify stable and unstable structural shapes.  Contribute to discussions.  Identify features that make a chair stable.  Work independently to make a stable structure, following a demonstration.  Explain how their ideas would be suitable for Baby Bear.  Produce a model that supports a teddy, using the appropriate materials and construction techniques.  Explain how they made their model strong, stiff and stable.</p>	<p>Year 1: Cooking and nutrition: fruit and vegetables  Describe fruits and vegetables and explain why they are a fruit or a vegetable.  Name a range of places that fruits and vegetables grow.  Describe basic characteristics of fruit and vegetables.  Prepare fruits and vegetables to make a smoothie.</p> <p>This unit:  Name the main food groups and identify foods that belong to each group.  Describe the taste, texture and smell of a given food.  Think of four different wrap ideas, considering flavour combinations.  Construct a wrap that meets the design brief and their plan.</p>		
	<p><b>Curiosity questions</b></p>	<p><b>Substantive knowledge</b></p>	<p><b>Disciplinary Knowledge</b></p>		<p><b>Key Vocabulary</b></p>
<p>Wk 1</p>	<p>What is a stable structure?</p>	<p>To know that shapes and structures with wide, flat bases or legs are the most stable.  To understand that 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>Generating and communicating ideas using sketching and modelling.  Learning about different types of structures, found in the natural world and in everyday objects.  Making a structure according to design criteria.  Creating joints and structures from paper/card and tape.  Exploring the features of structures.  Comparing the stability of different shapes.  Identifying the weakest part of a structure.</p>		<p>design criteria  man-made  natural  properties  structure  stable  shape  model  test</p>
<p><u>Retrieval Practice Questions</u>  Last week:  Last term: Name a fruit.  Last year: picture of junk model. What shapes can they see?</p>					

Wk 2	Strengthening materials	<p>To know that shapes and structures with wide, flat bases or legs are the most stable.</p> <p>To understand that the shape of a structure affects its strength.</p> <p>To know that materials can be manipulated to improve strength and stiffness.</p> <p>To know that a structure is something which has been formed or made from parts.</p> <p>To know that a 'stable' structure is one which is firmly fixed and unlikely to change or move.</p> <p>To know that a 'strong' structure is one which does not break easily.</p> <p>To know that a 'stiff' structure or material is one which does not bend easily.</p>	<p>Generating and communicating ideas using sketching and modelling.</p> <p>Learning about different types of structures, found in the natural world and in everyday objects.</p> <p>Creating joints and structures from paper/card and tape.</p> <p>Building a strong and stiff structure by folding paper.</p> <p>Exploring the features of structures.</p> <p>Comparing the stability of different shapes.</p> <p>Testing the strength of their own structures.</p> <p>Identifying the weakest part of a structure.</p>	<p>Design criteria</p> <p>Man-made</p> <p>Natural</p> <p>Properties</p> <p>Structure</p> <p>Stable</p> <p>Shape</p>
<p><u>Retrieval Practice Questions</u></p> <p>Last week: true or false. Stable is when something easily falls down.</p> <p>Last term: Name a vegetable.</p> <p>Last year: What is an axel?</p>				
Wk 3	Making baby bear's chair	<p>To know that shapes and structures with wide, flat bases or legs are the most stable.</p> <p>To understand that the shape of a structure affects its strength.</p> <p>To know that materials can be manipulated to improve strength and stiffness.</p> <p>To know that a structure is something which has been formed or made from parts.</p> <p>To know that a 'stable' structure is one which is firmly fixed and unlikely to change or move.</p> <p>To know that a 'strong' structure is one which does not break easily.</p> <p>To know that a 'stiff' structure or material is one which does not bend easily.</p>	<p>Generating and communicating ideas using sketching and modelling.</p> <p>Learning about different types of structures, found in the natural world and in everyday objects.</p> <p>Making a structure according to design criteria.</p> <p>Creating joints and structures from paper/card and tape.</p> <p>Building a strong and stiff structure by folding paper.</p> <p>Exploring the features of structures.</p> <p>Comparing the stability of different shapes.</p> <p>Testing the strength of their own structures.</p> <p>Identifying the weakest part of a structure.</p> <p>Evaluating the strength, stiffness and stability of their own structure.</p>	<p>Design criteria</p> <p>Man-made</p> <p>Model</p> <p>Natural</p> <p>Structure</p> <p>Stable</p> <p>Test</p>
<p><u>Retrieval Practice Questions</u></p> <p>Last week: demonstrate to a friend the weakest part of a shape.</p> <p>Last term: Name a part of a plant we can eat.</p> <p>Last year: Which picture is a net?</p>				
Wk 4	Fixing and testing baby bear's chair	<p>To know that shapes and structures with wide, flat bases or legs are the most stable.</p> <p>To understand that the shape of a structure affects its strength.</p> <p>To know that materials can be manipulated to improve strength and stiffness.</p> <p>To know that a structure is something which has been formed or made from parts.</p> <p>To know that a 'stable' structure is one which is firmly fixed and unlikely to change or move.</p> <p>To know that a 'strong' structure is one which does not break easily.</p> <p>To know that a 'stiff' structure or material is one which does not bend easily.</p>	<p>Making a structure according to design criteria.</p> <p>Creating joints and structures from paper/card and tape.</p> <p>Building a strong and stiff structure by folding paper.</p> <p>Exploring the features of structures.</p> <p>Comparing the stability of different shapes.</p> <p>Testing the strength of their own structures.</p> <p>Identifying the weakest part of a structure.</p> <p>Evaluating the strength, stiffness and stability of their own structure.</p>	<p>Design criteria</p> <p>Model</p> <p>Man-made</p> <p>Natural</p> <p>Structure</p> <p>Stable</p> <p>Test</p>

	<u>Retrieval Practice Questions</u> Last week: What must a chair be? Last term: What can I use to cut fruit? Last year: which is the definition of strong.			
Wk 5	Are sugary drinks good for me?	To know that 'diet' means the food and drink that a person or animal usually eats. To understand what makes a balanced diet. To know where to find the nutritional information on packaging. To know that the five main food groups are: Carbohydrates, fruits and vegetables, protein, dairy and foods high in fat and sugar. To understand that I should eat a range of different foods from each food group, and roughly how much of each food group. To know that nutrients are substances in food that all living things need to make energy, grow and develop. To know that 'ingredients' means the items in a mixture or recipe. To know that I should only have a maximum of five teaspoons of sugar a day to stay healthy. To know that many food and drinks we do not expect to contain sugar do; we call these 'hidden sugars'.	Describing the information that should be included on a label.	Balanced diet Balance Carbohydrate Dairy Fruit Ingredients Oils Sugar Protein Vegetable
	<u>Retrieval Practice Questions</u> Last week: what does test mean? Last term: Picture of a car. Name the parts of a car. Last year: Healthy means that I only eat fruit and vegetables. True or false.			
Wk 6	How do we make it a balanced diet?	To know that 'diet' means the food and drink that a person or animal usually eats. To understand what makes a balanced diet. To know where to find the nutritional information on packaging. To know that the five main food groups are: Carbohydrates, fruits and vegetables, protein, dairy and foods high in fat and sugar. To understand that I should eat a range of different foods from each food group, and roughly how much of each food group. To know that nutrients are substances in food that all living things need to make energy, grow and develop. To know that 'ingredients' means the items in a mixture or recipe. To know that I should only have a maximum of five teaspoons of sugar a day to stay healthy. To know that many food and drinks we do not expect to contain sugar do; we call these 'hidden sugars'.	Designing a healthy wrap based on a food combination which works well together. Slicing food safely using the bridge or claw grip. Constructing a wrap that meets a design brief.	Balanced diet Design criteria Diet Fruit Ingredients Protein Sugar Vegetable
	<u>Retrieval Practice Questions</u> Last week: drinks label. How much sugar is in this drink? Last term: how can I make a wheel turn? Last year: What must I do before I do anything with food?			

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