

St Anne's C of E Primary School Curriculum Plan

Subject: Design and Technology

Year: 3

Term: Autumn



Unit: Eating Seasonally (Cooking and Nutrition)



Vocabulary	Knowledge	Understanding	Skills
	Children will know (that)	Children will understand (that)	Children will be able to
<p>appearance – the way something looks.</p> <p>climate – the weather conditions an area usually has.</p> <p>complimentary – things that go together like colour or flavour.</p> <p>design – a plan for a recipe or dish.</p> <p>evaluate – to study something carefully and decide if it is good or bad.</p> <p>export – food sold to another country.</p>	<p>Not all fruits and vegetables can be grown in the UK.</p> <p>Climate affects food growth.</p> <p>Vegetables and fruit grow in certain seasons.</p> <p>Cooking instructions are known as a 'recipe'.</p> <p>Imported food is food which has been brought into the country.</p> <p>Exported food is food which has been sent to another country.</p> <p>Similar coloured fruits and vegetables often have similar nutritional benefits.</p>	<p>Technical</p> <p>Where food comes from.</p> <p>What makes a balanced diet.</p> <p>How eating seasonally can benefit themselves and the environment.</p> <p>The need for good hygiene when handling food.</p> <p>How to keep safe when using different equipment.</p> <p>The need to follow a recipe to produce a high quality dish.</p> <p>The difference between imported and exported food.</p>	<p>Design</p> <p>Design a recipe for a savoury tart.</p> <p>Make</p> <p>Follow the instructions within a recipe.</p> <p>Taste seasonal ingredients.</p> <p>Select seasonal ingredients.</p> <p>Peel ingredients safely.</p> <p>Cut safely with a vegetable knife.</p> <p>Evaluate</p>

<p>import – food bought from another country.</p> <p>ingredients – foods that a recipe is made from.</p> <p>peel – to remove the skin of fruit or vegetables.</p> <p>seasonal – food that grows at a certain time of the year.</p> <p>temperate – a climate with four seasons like the UK.</p> <p>texture – the way food feels in your mouth.</p> <p>weather – the temperature or conditions outside.</p>	<p>The appearance of food is as important as taste.</p>		<p>Evaluate pre-existing products to inform their own design.</p> <p>Establish and use design criteria to help test and review dishes.</p> <p>Describe the benefits of seasonal fruits and vegetables and the impact on the environment.</p> <p>Suggest points for improvement when making a seasonal tart.</p>
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St Anne's C of E Primary School Curriculum Plan

Subject: Design and Technology

Year: 3

Term: Spring



Unit: Pneumatic Toys (Mechanisms)



Vocabulary	Knowledge	Understanding	Skills
	Children will know (that)	Children will understand (that)	Children will be able to
<p>exploded-diagram – a diagram which shows all of the parts of a product, including the internal and external parts.</p> <p>function - how something works.</p> <p>input - the energy that is used to start something working.</p> <p>linkage - lengths of material that are joined together by pivots, so that the links can move as part of a mechanism.</p> <p>mechanism - a system of parts all working together.</p>	<p>Pneumatic systems operate by drawing in, releasing and compressing air.</p> <p>Exploded-diagrams are used to show how different parts of a product fit together.</p> <p>Thumbnail sketches are small drawings to get ideas down on paper quickly.</p> <p>Mechanisms are a system of parts which work together to create motion.</p> <p>There are 3 different types of pneumatic systems.</p>	<p>Technical</p> <p>How pneumatic systems work.</p> <p>Pneumatic systems can be used as part of a mechanism.</p> <p>How sketches, drawings and diagrams can be used to communicate design ideas.</p> <p>What an exploded diagram is and why it is helpful in designing a mechanism.</p> <p>Pneumatic systems are used in a range of everyday objects.</p>	<p>Design</p> <p>Design a toy which uses a pneumatic system.</p> <p>Develop design criteria from a design brief.</p> <p>Generate ideas using thumbnail sketches and exploded diagrams.</p> <p>Learn that different types of drawings are used in design to explain ideas clearly.</p> <p>Make</p> <p>Create a pneumatic system to create a desired motion.</p>

<p>motion – the movement an object makes when controlled by an input or output.</p> <p>net - a flat 2D shape that can become a 3D shape when assembled.</p> <p>output - the motion that happens as a result of starting the input.</p> <p>pivot - the central point, pin or shaft on which a mechanism turns or swings.</p> <p>pneumatic system – a mechanism that runs on air or compressed gas.</p> <p>thumbnail sketch – small drawings to get ideas down on paper quickly.</p>		<p>Design criteria can be used in evaluating the success of a product.</p>	<p>Build secure housing for a pneumatic system.</p> <p>Use syringes and balloons to create different types of pneumatic systems to make a functional and appealing pneumatic toy.</p> <p>Select materials due to their functional and aesthetic characteristics.</p> <p>Manipulate materials to create different effects by cutting, creasing, folding and weaving.</p> <p>Evaluate</p> <p>Evaluate pre-existing products to inform their own design.</p> <p>Use the views of others to improve designs.</p> <p>Test and modify the outcome, suggesting improvements.</p> <p>Understand the purpose of exploded-diagrams through the eyes of a designer and their client.</p>
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St Anne's C of E Primary School Curriculum Plan

Subject: Design and Technology

Year: 3

Term: Summer



Unit: Constructing a Castle (Structure)



Vocabulary	Knowledge	Understanding	Skills
	Children will know (that)	Children will understand (that)	Children will be able to
<p>castle – a type of building that used to be built hundreds of years ago to defend land and be a home for kings and queens and other rich people.</p> <p>design criteria - a set of rules to help you with your ideas and test their success.</p> <p>evaluation - when you look at the good and bad points of something and how to improve it.</p> <p>façade – the front of a structure.</p> <p>feature – a specific part of something.</p>	<p>The following features of a castle: flags, towers, battlements, turrets, curtain walls, moat, drawbridge and gatehouse - and their purpose.</p> <p>A façade is the front of a structure.</p> <p>A paper net is a flat 2D shape that can become a 3D shape once assembled.</p> <p>A design specification is a list of success criteria for a product.</p>	<p>Technical</p> <p>Wide and flat based objects are more stable.</p> <p>The importance of strength and stiffness in structures.</p> <p>A castle needed to be strong and stable to withstand enemy attack.</p> <p>A castle is made up of multiple 3D shapes.</p> <p>The importance of accuracy when creating nets to be used in building a structure.</p>	<p>Design</p> <p>Design a castle with key features to appeal to a specific person/purpose.</p> <p>Draw and label a castle design using 2D shapes, the 3D shapes that will create the features, materials needed and colours.</p> <p>Design and/or decorate a castle tower on CAD software.</p> <p>Make</p> <p>Construct a range of 3D geometric shapes using nets.</p>

<p>flag – a piece of cloth used as a decoration or to represent a country or symbol.</p> <p>net - a flat 2D shape that can become a 3D shape when assembled.</p> <p>recyclable – material or an object that, when no longer wanted or needed, can be made into something else new.</p> <p>scoring – scratching a line with a sharp object into card to make the card easier to bend.</p> <p>stable - an object that doesn't easily topple over.</p> <p>strong - something that doesn't break easily.</p> <p>structure - something that has been made and put together.</p> <p>tab – the small tabs on the net template that are bent and glued down to hold the shape together.</p> <p>weak - something that breaks easily.</p>			<p>Create special features for individual designs.</p> <p>Make facades from a range of recycled materials.</p> <p>Evaluate</p> <p>Evaluate pre-existing products to inform their own design.</p> <p>Evaluate their own work and the work of others based on the aesthetic of the finished product and in comparison to the original design.</p> <p>Suggest points for modification of the individual designs.</p>
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