

Design & Technology – Year 2 - Autumn Term – Design & Create their own Musical Instrument

Mechanical

Key Vocabulary:

Sound, join, volume, shake, bang, explore, equipment, tools, join, cut, elastic, vibrate, loud, quiet, high, low, pitch, attach, measure, decoration, quality, frame.

National Curriculum	Week	NC - Coverage	Skills Taught Disciplinary (Why) Procedural (How)	Knowledge Factual	Activity Outline
<p>Key stage 1 Pupils should be taught to:</p> <p><u>Design</u> Design purposeful, functional, appealing products for themselves and other users based on design criteria</p> <p>Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</p> <p><u>Make</u></p>	1	<p>Design purposeful, functional, appealing products for themselves and other users based on design criteria</p> <p>Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</p>	I know why it's important to generate ideas, considering the purposes for which I am designing.	<p>I know that different materials transport sounds in a variety of ways.</p> <p>I know that different types of sounds can be made using different techniques e.g. shaking, scraping, hitting, and plucking.</p> <p>I know that there are a variety of instruments and can recognise and name them learning about how they work.</p>	<p>Discuss/Explore Different Musical Instruments</p> <p>How do they work?</p> <p>How are they fit for purpose?</p> <p>Identify Intended User & Purpose</p>

<p>Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</p> <p>Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p> <p>Evaluate Explore and evaluate a range of existing products</p> <p>Evaluate their ideas and products against design criteria</p> <p>Technical knowledge Build structures, exploring how they can be made stronger, stiffer and more stable</p>	<p>2-3</p>	<p>Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products</p> <p>Design purposeful, functional, appealing products for themselves and other users based on design criteria</p> <p>Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</p>	<p>I know why it is important to generate ideas for an item, considering its purpose and the user/s.</p>	<p>I know that elastic bands can be used to replicate the strings on a guitar. As they vibrate, they will make sounds.</p> <p>I know that vibrations from sounds travel through a medium to the ear</p>	<p>Explore different ways of creating a musical instrument.</p> <p>Rice in a cup</p> <p>Elastic Bands</p>
<p>Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products</p> <p>Cooking Use the basic principles of a healthy and varied diet to prepare dishes</p> <p>Understand where food comes from.</p>	<p>4-5</p>	<p>Design purposeful, functional, appealing products for themselves and other users based on design criteria</p> <p>Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</p>	<p>I know why it is important to develop my design ideas through discussion, observation, drawing and modelling.</p> <p>I know why it is important to identify a purpose for what I intend to design and make.</p> <p>I know how to make simple drawings and label parts of a diagram.</p>	<p>I know that different tools have characteristics that make them suitable for specific purposes. For example, scissors are used for cutting paper because they have sharp, metal blades that can cut through thin materials.</p> <p>I know that instructions are detailed information about</p>	<p>Designs</p> <p>Equipment – Identify Purpose Aesthetically or Functionality</p> <p>Materials</p> <p>Techniques</p> <p>Skills Developed from Year 1</p> <p>Joining Techniques</p>

			I know how to select tools and materials; use vocabulary to name and describe them	how something should be done or operated.	
	6-7	<p>Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</p> <p>Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p>	<p>I know how to measure, cut and score with some accuracy.</p> <p>I know how to use hand tools safely and appropriately.</p> <p>I know how to assemble, join and combine materials in order to make a product.</p> <p>I know why it is important to develop my fine motor skills and have a steady hand to assemble individual components of my product.</p>	<p>I know that materials can be joined in a variety of ways safely using scissors, glue, cello tape.</p> <p>I know that a template can be created to mark out shapes repeatedly and support the creation of my product.</p>	<p>Create Product</p> <p>Measure & Cut Out Accurately</p> <p>Assemble Product Independently</p>
	8	<p>Explore and evaluate a range of existing products</p> <p>Evaluate their ideas and products against design criteria</p>	I know how to evaluate my product against the original design criteria carrying out appropriate tests <i>e.g. how well it meets its intended purpose.</i>	I know that to test the effectiveness and success of my product I can evaluate using participant responses to my questionnaires, identifying strengths, possible changes and areas for development	<p>Evaluation</p> <p>Identification of Skill Improvement</p> <p>Carrying out Investigation to prove product is fit for purpose.</p>

			I know why it is important to talk about my ideas, saying what I like and dislike about my product.	I know that a skill is the ability to do something well e.g. I can work well independently and in a group. I can solve problems efficiently. I can show creativity when creating my product.	

Design & Technology – Year 2 – Spring Term – Design & Create a Finger Puppet (Based on Topic)


Sewing

Key Vocabulary:

Design, audience, join, stitch, overlay, cut, attach, improve, equipment, jottings, running stitch, thread, needle, secure, evaluate, fabric, material, fastening, strength, weakness, template.

National Curriculum	Week	NC - Coverage	Skills Taught Disciplinary (Why) Procedural (How)	Knowledge Factual	Activity Outline
<p>Key stage 1 Pupils should be taught to:</p> <p>Design Design purposeful, functional, appealing products for themselves and other users based on design criteria</p> <p>Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</p> <p>Make</p>	1	<p>Design purposeful, functional, appealing products for themselves and other users based on design criteria</p> <p>Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</p>	<p>I know why it is important to generate ideas by drawing on my own and other people's experiences.</p>	<p>I know that there are different kinds of puppets such as glove, finger, string, sock and rod.</p> <p>I know that finger puppets can be used to retell stories and are designed to be controlled by a person's hand movement.</p> <p>I know that finger puppets are made from a variety of materials including felt and fabric.</p>	<p>Look at various different finger puppets-</p> <p>What shape are they? What key features do they have? How are they joined together? What do you like or dislike?</p> <p>Explain to children what a target group is and what a design criteria is. Begin to reflect on why these are important</p> <p>Discuss appropriate target groups and design criteria</p>

<p>Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</p> <p>Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p> <p>Evaluate Explore and evaluate a range of existing products</p>				<p>I know that the intended user is a person or group of people that will purchase or use my product.</p> <p>I know that the design criteria are the explicit goals that a project must achieve in order to be successful.</p>	<p>(3 points) for the puppets they intend to create.</p> <p>Discuss different ideas for their product whilst exploring the existing puppets. Ask children when they think fingers puppets might be used.</p>
<p>Evaluate their ideas and products against design criteria</p> <p>Technical knowledge Build structures, exploring how they can be made stronger, stiffer and more stable</p> <p>Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products</p> <p>Cooking Use the basic principles of a healthy and varied diet to prepare dishes</p> <p>Understand where food comes from.</p>	<p>2-3</p>	<p>Design purposeful, functional, appealing products for themselves and other users based on design criteria</p> <p>Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</p> <p>Select from and use a range of tools and equipment to perform practical tasks [for</p>	<p>I know why it is important to generate ideas by drawing on my own and other people's experiences.</p>	<p>I know that you can thread a needle by pulling the thread through the eye of the needle so that it is close to the end. You can then cut the length of thread that you want.</p> <p>I know that I will need to use a basic running stitch to make my puppet.</p> <p>I know that a running stitch is a sewing stitch made by passing the needle in and</p>	<p>Model how to measure, mark out and cut a range of materials.</p> <p>Allow children to reinforce this skill with a range of additional materials, support children where needed.</p> <p>Remind children of the sewing that they did in Y1. Encourage children to think back about the equipment needed to sew materials together.</p> <p>Ask children how we correctly thread a needle and how we ensure that the</p>

		<p>example, cutting, shaping, joining and finishing]</p> <p>Exploring how they can be made stronger, stiffer and more stable</p>		<p>out repeatedly with short, even stitches.</p> <p>I know that doubling the thread and tying the ends together into a knot will prevent the needle from falling off the thread.</p> <p>I know how to use needles safely, ensuring I pull away and store needles correctly at the end of each lesson.</p>	<p>thread does not keep coming out of the material they are trying to join.</p> <p>Explain to children that to join the materials for their finger puppets together, they will use either a running stitch or a basting stitch. Encourage children to remember the movement of the thread when completing a running stitch. Model both stitches and allow children to practise these with various materials.</p> <div><p>The image contains two small diagrams. The left diagram, labeled 'running stitch', shows a needle and thread creating a simple over-and-under pattern on a piece of fabric. The right diagram, labeled 'basting stitch', shows a needle and thread being used to temporarily hold two pieces of fabric together.</p></div> <p><i>Plastic needles can be used if required.</i></p> <p>Encourage children to think about their designs as they practise joining the materials together – which stitch would be most suitable? What material would be most suitable?</p>
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	<p>4-5</p>	<p>Design purposeful, functional, appealing products for themselves and other users based on design criteria</p> <p>Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</p>	<p>I know why it is important to explore, develop and communicate design proposals by modelling ideas, observing, discussing and drawing.</p> <p>I know how to identify the purpose for what I intend to design and make, following a simple design criterion.</p> <p>I know how to make simple drawings and label parts of a diagram.</p>	<p>I know that I will need to use a variety of materials, thread, tape measures, fabric paint, scissors, and a needle to create my finger puppet.</p> <p>I know that a labelled diagram is a drawing with clear captions highlighting the key aspects of my design.</p> <p>I know that a set of instructions give a series of information about each step that needs to be completed in order to achieve a desired outcome.</p>	<p>Discuss with children the importance of making a product appealing and purposeful. How can we ensure that our products are purposeful and appealing to individuals that we intend to make the product for?</p> <p>Discuss finishing elements to their design e.g adding a button – how could this improve the appearance?</p> <p>Give children the opportunity to draw, label and discuss their designs with their peers.</p> <p>Encouraging them to talk to one another about the different elements of their design e.g the stitch, finishing elements</p> <p>Ask children to label the materials (colour, shape etc) they will use, mark out the tools they will need.</p> <p>Remind children that they must design their product from two different angles – one from the back and one from the front.</p> <p>Discuss as a class and mind map the potential issues that might occur when</p>
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					<p>creating their product – e.g time management, materials not joined correctly etc. Ask children to think about how they might overcome these issues.</p> <p>Show children two materials that have been joined together using a piece of thread, but it is coming loose. Ask them how it could be made stronger and more stable. Encourage children to think about the tightness of the thread through the material</p> <p>Children to then measure, mark out and cut the materials needed to make their puppet</p>
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	<p>6-8</p>	<p>Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</p> <p>Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p>	<p>I know how to measure, cut and score with some accuracy.</p> <p>I know how to use a variety of stitches to assemble my chosen material.</p> <p>I know why I need to use hand tools safely and appropriately.</p> <p>I know how to assemble, join and combine materials in order to make a product.</p>	<p>I know that different tools have characteristics that make them suitable for specific purposes. For example, scissors are used for cutting paper because they have sharp, metal blades that can cut through thin materials.</p> <p>I know that a sewing needle, is a long slender tool with a pointed tip at one end and a hole to hold the sewing thread.</p> <p>I know that I will need to draw a template prior to sewing my material together to create my product.</p> <p>I know that during sewing, my needle and thread will need to pass two pieces of</p>	<p>Allow children to collect the materials and equipment they feel they need to create their product.</p> <p>Remind children of the design criteria and intended user. Ask children what evaluating is. How might we evaluate during the process of creating something? Encourage children to evaluate their product whilst making it and change these if needed whilst they are developing their product.</p> <p>Model sewing two pieces of material together. Allow children to begin creating their product. Circle and support where needed.</p>
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				material to successfully join together.	
	9	<p>Explore and evaluate a range of existing products</p> <p>Evaluate their ideas and products against design criteria</p>	<p>I know how to evaluate my product against the design criteria and suggest improvements.</p> <p>I know how to talk about my ideas, saying what I like and dislike about my product to evaluate its effectiveness.</p>	<p>I know that a survey is a method of gathering information from participants.</p> <p>I know that to evaluate my product I will be judging or calculating the quality, importance, or value of my product, focusing on the positive aspects and areas for improvement.</p>	<p>Remind children of their intended purpose, user and design criteria. Ask children to look at their puppets together as a table – how have or haven't they met what was expected?</p> <p>Allow children to discuss with their peers what they like and dislike about each other's products</p> <p>Give children opportunity to evaluate against design criteria – this could be a tick or cross activity. Allow children to rate the purposefulness of their</p>

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					product within their evaluation.

Design & Technology – Year 2 – Summer Term – Design & Create Seaside Snacks

Cooking

Key Vocabulary:

Names of fruits and vegetables, hygiene, wash, clean, nutrition, chop, peel, slice, taste, smell, texture, pip, core, ingredients, squeezing, healthy diet, utensils, equipment, smooth, sharp, safety.

National Curriculum	Week	NC - Coverage	Skills Taught Disciplinary (Why) Procedural (How)	Knowledge Factual	Activity Outline
<p>-Key stage 1 Pupils should be taught to:</p> <p>Design Design purposeful, functional, appealing products for themselves and other users based on design criteria</p> <p>Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</p> <p>Make</p>	1-2	<p>Design purposeful, functional, appealing products for themselves and other users based on design criteria</p> <p>Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</p>	I know why it is important to generate ideas for an item, considering its purpose and the users.	<p>I know that there are a range of fruit and vegetables and where they come from e.g. farmed or grown at home.</p> <p>I know that a variety of seaside snacks include: sandwiches, ice creams and fruit lollies, fish and chips and rock.</p> <p>I know that savoury sandwiches contain a variety of fillings such as meat, fish, dairy products and salad.</p>	<p>Show children various different seaside snacks. Which are healthy? What do they all have in common? How are they different? Has anyone tasted any of these before?</p> <p>Encourage children to think about the practicalities of seaside snacks – e.g withstand the temp, easy to eat etc.</p> <p>Remind children of the eat well plate</p> 

<p>Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</p> <p>Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p> <p>Evaluate Explore and evaluate a range of existing products</p> <p>Evaluate their ideas and products against design criteria</p> <p>Technical knowledge Build structures, exploring how they can be made stronger, stiffer and more stable</p> <p>Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products</p>		<p>Use the basic principles of a healthy and varied diet to prepare dishes</p> <p>Understand where food comes from.</p>		<p>I know that the British seaside has been a tourist destination for many years, and seaside towns have evolved over time.</p>	<p>Can they label and sort items into the different groups.</p> <p>Encourage children to think of ways that they can have a balanced, healthy diet.</p> <p>Ask children where we get our food from. Remind them to think back to Year 1.</p> <p>Show children various foods, can they sort out where they have come from e.g</p> <p>Reared - looking after an animal until it is old enough to be used as food</p> <p>Grown- to become larger by natural development</p> <p>Caught - to get hold of (seafood)</p> <p>Together as a class discuss a design criteria that they must work towards, a purpose for their product and intended user.</p>
<p>Cooking Use the basic principles of a healthy and varied diet to prepare dishes</p> <p>Understand where food comes from.</p>	<p>3-4</p>	<p>Design purposeful, functional, appealing products for themselves and other users based on design criteria</p> <p>Generate, develop, model and communicate their</p>	<p>I know why it is important to explore, develop and communicate design proposals by modelling ideas, observing, discussing and drawing.</p>	<p>I know that the appropriate hygiene rules include washing hands before handling food, cleaning surfaces, tying long hair back, and wiping up spills.</p>	<p>Show children various different veg/fruit kebabs. How have these been prepared? What equipment will be needed? How can we use these safely?</p>

		<p>ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</p> <p>Use the basic principles of a healthy and varied diet to prepare dishes</p> <p>Understand where food comes from.</p>	<p>I know how to make drawings with labels when designing.</p>	<p>I know that some ingredients need to be prepared before they can be cooked or eaten.</p> <p>I know that fruit and vegetables are an important parts of a healthy diet. It is recommended that people eat at least five portions of fruit and vegetables every day.</p> <p>I know that fruit can be high in sugar but is healthier than cakes, sweets, and chocolate.</p> <p>I know that there are a variety of seaside destinations: Blackpool, Scarborough, Weston-Super-Mare.</p>	<p>Explain to children that fruit and veg can be cut, peeled and grated.</p> <p>Cut - to pierce, slice, or open with a sharp tool such as a knife</p> <p>Peel - to pull, tear, or cut the outer covering from</p> <p>Grate - to rub against a rough surface to make into small pieces</p> <p>Show children the various different pieces of fruit and veg that they can choose from. Explain how they prepare it is up to them but encourage them to think about the importance of making it appealing.</p> <p>Allow children to draw out and discuss their designs, labelling key ingredients, techniques used e.g cutting, grating or peeling and tools used.</p> <p>Discuss with children the importance of hygiene during cooking and appropriate methods needed to be used within the kitchen.</p>
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					Children will be creating their own sandwiches with a variety of fillings.
	5	<p>Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</p> <p>Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p>	<p>I know why it is important to follow safe procedures for food safety and hygiene when creating my product.</p> <p>I know how to select tools and materials; use vocabulary to name and describe them.</p>	<p>I know that a recipe is a set of instructions used when cooking or baking foods, and tells us the ingredients, quantity and preparation of foods.</p>	<p>Discuss with children the importance of following a method when preparing dishes, thinking about cross contamination etc.</p> <p>Give children the opportunity to draw out or write their method for creating their seaside snack. Ensure that children use appropriate vocab for tools, equipment and techniques.</p>
	6-7	<p>Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</p> <p>Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p>	<p>I know how to use hand tools safely and appropriately.</p> <p>I know why it is important to work safely and accurately with a range of simple tools.</p>	<p>I know that there are many ways to prepare ingredients: peeling skins using a vegetable peeler; grating hard ingredients, such as cheese; chopping vegetables, such as onions and peppers and slicing foods, such as bread.</p> <p>I know that to create my seaside snack I need to</p>	<p>Remind children of how to stay hygienic when cooking. Allow children to wash their hands, tie their hair back etc.</p> <p>Allow children to select their tools and ingredients to create their product.</p> <p>REMIND – What is the bridging technique? How do we do it? How does it help us?</p>

				<p>follow a recipe and set of instructions.</p> <p>I know that tools such as knives and graters need to be used safely as they are sharp and can cause injury.</p> <p>I know that knives can be used to spread ingredients with a swiping motion.</p> <p>I know that chopping boards can be used to safely and hygienically chop ingredients.</p> <p>I know that to chop ingredients I can use a variety of techniques – bridge, claw and fork, which slice and chop food into smaller pieces.</p>	<p>Model new techniques:</p> <p><i>Cutting using bridging technique</i></p> <p><i>Peeling</i></p> <p><i>Grating</i></p> <p>Encourage children to think of ways that they can make their product appealing to their intended user.</p>
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	<p>8</p>	<p>Explore and evaluate a range of existing products</p> <p>Evaluate their ideas and products against design criteria</p>	<p>I know how to evaluate my product, identifying strengths and possible changes for future products.</p> <p>I know why it is important to talk about my ideas, saying what I like and dislike about my product.</p>	<p>I know that a questionnaire is a set of questions to obtain information from participants about the effectiveness of my product.</p> <p>I know that my questionnaire could contain questions in regards to my products appearance and taste.</p> <p>I know that a skill is the ability to do something well e.g. I can work well independently and in a group. I can solve problems efficiently. I can show creativity when creating my product.</p>	<p>Model evaluating against the purpose of the product and the design criteria from the start of the project.</p> <p>Allow children to evaluate their final product against the design criteria and the purpose of the product e.g the practically of it being eaten at a seaside.</p> <p>Discuss as a class the techniques they used e.g cutting, grating, and peeling. What was most difficult and why? How could we develop these skills? How would developing the skills make our product better?</p> <p>Allow children to independently reflect on one skill that they would like to develop further and why.</p> <p>Create a questionnaire as a class on the appearance and purpose of the product. Encourage children to use these questions to ask</p>
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					individuals about their products.