

	AI	SPI	SP2	SUI	SU2
FS	<p><b>Early Learning Goal: Expressive Arts and Design - Exploring and using media and materials</b> Children safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</p> <p><b>Early Learning Goal: Expressive arts and design: Being imaginative</b> Children use what they have learnt about media and materials in original ways, thinking about uses and purposes. They represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role play and stories.</p> <p><b>All skills will be explicitly taught, modelled and embedded through both adult led and child initiated activities in provision.</b></p>				
	<p>Materials and Tools</p> <p><b>To use and explore a variety of materials and tools safely.</b></p> <p><u>Developing skills (investigate and explore):</u></p> <ul style="list-style-type: none"> <li>• Scissor skills</li> <li>• Media and materials in the creative area</li> <li>• Sellotape dispenser</li> <li>• Joins construction pieces together to build and balance.</li> <li>• Properties of malleable materials</li> </ul>	<p>Technique - combining media and materials</p> <p><b>To explore ways of joining materials in the most effective way to create 3D models.</b></p> <p><u>Developing skills (investigate and explore):</u></p> <ul style="list-style-type: none"> <li>• Observe how materials are joined together</li> <li>• Experimenting joining materials together in different ways</li> </ul>	<p>Combining media and materials for a planned effect</p> <p><u>Developing skills (investigate and explore):</u> In the Summer term in EYFS, the staff create opportunities for the children to use what they have learnt about media and materials in original ways, thinking about uses and purposes. They represent their own ideas, thoughts and feelings through design and technology.</p>		

	<p>e.g. play dough, messy play, clay</p> <p><u>Applying skills (designing and making):</u></p> <ul style="list-style-type: none"> <li>• Snake craft (scissor skills - spiral)</li> <li>• Lion/Tiger masks</li> <li>• Crocodile collage</li> <li>• Clay Diva lamps (Diwali)</li> <li>• Cooking/baking e.g. jungle smoothie, crocodile soup</li> <li>• Realise tools can be used for a purpose.</li> <li>• Manipulates materials to achieve a planned effect.</li> <li>• Constructs with a purpose in mind, using a variety of resources.</li> <li>• Uses simple tools and techniques competently and appropriately.</li> <li>• Selects appropriate resources and adapts work where necessary.</li> </ul> <p><b>Concepts:</b> Design, Evaluate, Nutrition</p>	<ul style="list-style-type: none"> <li>• Considering an object's surface, size and shape when choosing a method of joining</li> <li>• How to effectively use a range of joining techniques e.g. glue, sellotape, split pins, string etc</li> </ul> <p><u>Applying skills (designing and making):</u></p> <ul style="list-style-type: none"> <li>• Junk model pirate ships</li> <li>• Pirate puppets</li> <li>• 3D sea animal models</li> <li>• Cooking/baking e.g. pancakes, puff pastry sea snails</li> <li>• Beginning to construct, stacking blocks vertically and horizontally, making enclosures and creating spaces.</li> </ul> <p><b>Concepts:</b> Design, Evaluate, Nutrition</p>	<p><u>Applying skills (designing and making):</u></p> <ul style="list-style-type: none"> <li>• Child-initiated - combining media and materials for a planned effect based on interests and experiences.</li> <li>• Junk model minibeasts</li> <li>• Hungry Caterpillar healthy plate</li> <li>• Cooking/baking e.g. minibeast biscuits</li> <li>• Creates simple representations of objects.</li> <li>• Selects tools and techniques needed to shape, assemble and join materials they are using.</li> </ul> <p><b>Concepts:</b> Design, Evaluate, Nutrition</p>
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	<p>Evaluation: Ongoing throughout the year linked to communication and language and characteristics of effective learning when exploring in provision and adult led activities. Staff use open ended questioning to extend children's work and support them in their evaluation of their process and final products.</p>		
Y1	<p><b>Food</b></p> <p>To design a snack for Goldilocks to eat on a picnic.</p> <p>NC: use the basic principles of a healthy and varied diet to prepare dishes understand where food comes from.</p> <p><u>Investigate, disassembly, evaluate:</u> Understand where food comes from. Group familiar food products e.g. fruit and vegetables. Investigate different snacks - packaging, ingredients, looks etc Describe appearance, taste, texture of different food groups</p> <p><u>Focus Practical tasks:</u> Sample a range of different snacks and evaluate them Discuss hygiene and devise hygiene poster Cut ingredients safely. Prepare simple dishes-safely and hygienically-without using a heat source. Investigate measuring and weighing of ingredients</p>	<p><b>Mechanisms</b></p> <p>To design and make a car to transport Mr Gumpy and his passengers down the bumpy track</p> <p>NC: explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.</p> <p><u>Investigate, disassembly, evaluate:</u></p> <p>Look at variety of different vehicles and their purposes See how axles and wheels work by disassembling a vehicle Investigate whether thin or thick wheels work best on a muddy surface Explore objects and designs to identify likes and dislikes. Explore how products have been created.</p> <p><u>Focus Practical tasks:</u></p>	<p><b>Structure</b></p> <p>To design packaging that will transport food from farm to shop safely.</p> <p>To design and make an ice cream to serve at the end of year party.</p> <p>NC: build structures, exploring how they can be made stronger, stiffer and more stable NC: use the basic principles of a healthy and varied diet to prepare dishes understand where food comes from.</p> <p><u>Investigate, disassembly, evaluate</u></p> <p>Investigate different types of food packaging and discuss why the packaging is as it is.</p> <p><u>Focus Practical tasks:</u></p>

	<p>Practice following instructions</p> <p><b>Design:</b></p> <p><b>Design a snack for Goldilocks to eat.</b></p> <p>Draw on their own experience to help generate ideas Suggest ideas and explain what they are going to do Identify a target group for what they intend to design and make Develop their design ideas applying findings from their earlier research Draw on their own experience to help generate ideas Suggest ideas and explain what they are going to do</p> <p><b>Make</b></p> <p><b>Make a snack for Goldilocks to eat</b></p> <p>Cut ingredients safely. Prepare simple dishes-safely and hygienically-without using a heat source. Select and use appropriate fruit and vegetables, processes and tools Use basic food handling, hygienic practices and personal hygiene Use simple finishing techniques to improve the appearance of their product</p> <p><b>Evaluate</b></p>	<p>Name and label parts of a car. Attach wheels via an axle on a chassis and investigate different ways Inverting boxes to create a base for our vehicles</p> <p><b>Design:</b></p> <p><b>Design a car for Mr Gumpy that should suit his needs - what does it need? e.g. to go through mud etc</b></p> <p>Draw on their own experience to help generate ideas Suggest ideas and explain what they are going to do Identify a target group for what they intend to design and make Model their ideas in card and paper Develop their design ideas applying findings from their earlier research</p> <p><b>Make</b></p> <p><b>Make Mr Gumpy's car</b></p> <p>Make their design using appropriate techniques With help measure, mark out, cut and shape a range of materials</p>	<p>Investigate nets of shapes and assemble boxes from nets Font style Melting ice cream. Which material insulates the ice cream best? - science link</p> <p><b>Design</b></p> <p><b>Design how our ice cream will look (using Purple Mash)</b></p> <p>Choose ingredients to add into our ice cream. Design packaging - selecting fonts/colours/images based on our investigations Draw on their own experience to help generate ideas Suggest ideas and explain what they are going to do Identify a target group for what they intend to design and make Model their ideas in card and paper Develop their design ideas applying findings from their earlier research</p> <p>:</p> <p><b>Make</b></p> <p><b>Make ice cream and packaging</b></p>
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	<p>Evaluate their product by discussing how well it works in relation to the purpose</p> <p>Evaluate their products as they are developed, identifying strengths and possible changes they might make</p> <p>Evaluate their product by asking questions about what they have made and how they have gone about it</p> <p><b>Concepts:</b></p> <ul style="list-style-type: none"> <li>• Evaluate</li> <li>• Technology</li> <li>• Nutrition</li> </ul>	<p>Use tools eg scissors and a hole punch safely</p> <p>Assemble, join and combine materials and components together using a variety of temporary methods e.g. glues or masking tape</p> <p>Select and use appropriate fruit and vegetables, processes and tools</p> <p>Use simple finishing techniques to improve the appearance of their product</p> <p><b>Evaluate</b></p> <p>Test Mr Gumpy's car down a bumpy track and evaluate it's effectiveness.</p> <p>Evaluate their product by discussing how well it works in relation to the purpose</p> <p>Evaluate their products as they are developed, identifying strengths and possible changes they might make</p> <p>Evaluate their product by asking questions about what they have made and how they have gone about it</p> <p><b>Concepts</b></p> <ul style="list-style-type: none"> <li>• Design</li> <li>• Evaluate</li> <li>• Technology</li> </ul>	<p>Make their design using appropriate techniques With help measure, mark out, cut and shape a range of materials Add ingredients to our ice creams</p> <p>Assemble net of ice cream box and add designs</p> <p>Use tools eg scissors and a hole punch safely Assemble, join and combine materials and components together using a variety of temporary methods e.g. glues or masking tape Select and use appropriate fruit and vegetables, processes and tools</p> <p>Use basic food handling, hygienic practices and personal hygiene</p> <p>Use simple finishing techniques to improve the appearance of their product</p> <p><b>Evaluate</b></p> <p>Survey of flavours and box designs</p> <p>Evaluate their product by discussing how well it works in relation to the purpose</p> <p>Evaluate their products as they are developed, identifying strengths and possible changes they might make</p> <p>Evaluate their product by asking questions about what they have made and how they have gone about it</p> <p><b>Concepts:</b></p>
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			<ul style="list-style-type: none"> <li>• Design</li> <li>• Evaluate</li> <li>• Technology</li> <li>• Nutrition</li> </ul>
Y2	<p>To design and make a moving picture for a Y2 child to retell the story of Christopher Columbus.</p> <p>NC: Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.</p> <p><u>Investigate, disassembly, evaluate:</u></p> <p>Look at moving picture books with sliders and levers. Research/investigate how they move and the movements they make. Sliders - different types and how they move. Levers and pivots and how they create a mechanism.</p> <p><u>Focus Practical tasks</u></p>	<p>To design and make a tudor house that withstands wind and rain.</p> <p>NC: Build structures, exploring how they can be made stronger, stiffer and more stable</p> <p><u>Investigate, disassembly, evaluate:</u> Explore the features of a stable structure. Explore and compare existing building structures. Investigate materials, features and think about their purpose. Explore objects and designs to identify likes and dislikes. Explore how products have been created.</p>	<p>To design and make a healthy, nutritious meal for wounded soldiers.</p> <p>NC: Use the basic principles of a healthy and varied diet to prepare dishes.</p> <p><u>Investigate, disassembly, evaluate:</u></p> <p>Research/investigate what nutritious food are and how they help to provide a healthy and varied diet. Look at a selection of foods, fruits and vegetables. Find out where they originate from and how they are used within cooking.</p> <p><u>Focus Practical tasks:</u></p> <p>Children to look closely at a variety of different fruits and vegetables. Use their senses to describe the different</p>

	<p>Practise making different sliders. Practise making levers and pivots. Use materials to practise gluing to strengthen products Cut materials safely using tools provided. Demonstrate a range of cutting and shaping techniques such as tearing, cutting, folding and curling. Use simple mechanisms.</p> <p><b>Design</b></p> <p>Design their own moving boat picture that has one of the previously learnt mechanisms.</p> <p>Generate ideas by drawing on their own and other people's experiences Develop their design ideas through discussion, observation , drawing and modelling Identify a purpose for what they intend to design and make Identify simple design criteria Make simple drawings and label parts</p> <p><b>Make -</b></p> <p>Children to follow their designs to create their moving picture. They should think</p>	<p><u>Focus Practical tasks:</u></p> <p>Explore the properties of different materials and think about which ones are suitable for each section of their stable structure. Think about strength, stability, malleability and other features. Investigate the properties and characteristics of materials Explore how materials can be made stronger and stiffer</p> <p><u>Design:</u></p> <p>Children to design their own Tudor building, thinking about which materials to use based on the investigations carried out.</p> <p>Generate ideas by drawing on their own and other people's experiences Develop their design ideas through discussion, observation , drawing and modelling Identify a purpose for what they intend to design and make Identify simple design criteria Make simple drawings and label parts</p> <p><u>Make</u></p>	<p>features of the fruits and vegetables as well as their sense of taste. Discuss safety and hygiene in relation to food. Practice using different tools for cutting and chopping safely, and using the appropriate language associated with food preparation. Group foods into the five groups in The Eatwell Plate. Cut, grate or peel ingredients safely. Measure or weigh using cups or electronic scales.</p> <p><u>Design:</u></p> <p>To design a recipe to include fruit and/or vegetables. They will be challenged to design some new recipes only using fruits and vegetables, making sure they are colourful, tasty and healthy. Children to identify what ingredients and tools they will need to make their salad or smoothie?</p> <p>Generate ideas by drawing on their own and other people's experiences Develop their design ideas through discussion, observation , drawing and modelling Identify a purpose for what they intend to design and make Identify simple design</p>
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	<p>about the appropriate materials to use and how to work safely and carefully.</p> <p>Begin to select tools and materials; use vocab' to name and describe them Measure, cut and score with some accuracy Use hand tools safely and appropriately Assemble, join and combine materials in order to make a product Cut, shape and join fabric to make a simple garment. Use basic sewing techniques Choose and use appropriate finishing technique</p> <p><b>Evaluate</b> Can children evaluate their own moving pictures and say what they think and feel about them? • Can children identify what they have done well and suggest how they could make improvements? • Can children give their opinion about the work of other children and give positive feedback?</p> <p>Evaluate against their design criteria Evaluate their products as they are developed, identifying strengths and possible changes they might make Talk about their ideas, saying what they like and dislike about them</p> <p><b>Concepts:</b></p>	<p>Children will follow their own design plans and use the resources provided to build their own stable structures. They will develop their fine motor skills, concentration and perseverance as they draw, cut and stick with precision.</p> <p>Begin to select tools and materials; use vocab' to name and describe them Measure, cut and score with some accuracy Use hand tools safely and appropriately Assemble, join and combine materials in order to make a product Cut, shape and join fabric to make a simple garment. Use basic sewing techniques Choose and use appropriate finishing techniques</p> <p><b>Evaluate</b></p> <p>Children will look at different criteria and assess whether their structures are successful. They will think about features including the stability and firmness of their structure as well as features specific to their own design criteria.</p> <p>Evaluate against their design criteria Evaluate their products as they are</p>	<p>criteria</p> <p><b>Make</b></p> <p>Children will make their recipe designs making sure they are being safe and hygienic.</p> <p>Prepare simple dishes-safely and hygienically-without using a heat source. Measure, cut with some accuracy Use hand tools safely and appropriately Follow safe procedures for food safety and hygiene</p> <p><b>Evaluate</b></p> <p>Children to evaluate their finished products and say what they think and feel about them?</p> <p>Evaluate against their design criteria Evaluate their products as they are developed, identifying strengths and possible changes they might make Talk about their ideas, saying what they like and dislike about them</p> <p><b>Concepts:</b></p>
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	<ul style="list-style-type: none"> <li>• Design</li> <li>• *Evaluate</li> </ul>	<p>developed, identifying strengths and possible changes they might make Talk about their ideas, saying what they like and dislike about them</p> <p>Concepts:</p> <p>Design Evaluate</p>	<ul style="list-style-type: none"> <li>• Nutrition</li> <li>• Design</li> <li>• Evaluate</li> <li>• Data</li> </ul>
Y3	<p>To design and make a moving crocodile that moves its mouth so that it can eat.</p> <p>NC: Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]</p> <p><u>Investigate, disassembly, evaluate</u></p> <p>Investigate a variety of familiar objects that use air to make them work. Think of objects that use air to make them</p>	<p>To design and make a Greek Tzatziki dish for Year 3 parents.</p> <p>NC: Understand and apply the principles of a healthy and varied diet.</p> <p><u>Investigate, disassembly, evaluate</u></p> <p>Explore and evaluate a range of existing products in the context of comparing</p>	<p>To design and make a roof for a tribal house to withstand heavy rainfall and high winds.</p> <p>NC: Apply their understanding of how to strengthen, stiffen and reinforce more complex structures</p> <p><u>Investigate, disassembly, evaluate</u></p> <p>Investigate structures and how they are made stable.</p>

	<p>work, then examine, sketch, label and/or describe a variety of these kinds of objects. Disassemble products to understand how they work. Improve on existing designs, giving reasons for choices. Identify some of the great designers in different areas of study to generate ideas from their designs.</p> <p><u>Focus Practical tasks:</u></p> <p>Children will learn about simple pneumatic systems. Make a variety of simple pneumatic systems according to given instructions using basic equipment. Learn about pulleys and learn how to make a simple pulley.</p> <p><u>Design</u></p> <p>Children will use their knowledge of pneumatic systems to design a moving crocodile part? Children will scribe what materials and components they will need to create their crocodile?</p> <p>Generate ideas for an item, considering its purpose and the user/s Identify a purpose and establish criteria for a successful product. Plan the order of their work before starting Explore, develop and communicate design</p>	<p>different dips to understand where foods come from.</p> <p>Use the basic principles of a healthy and varied diet in the context of comparing different ingredients in dips and dippers, linking to food groups.</p> <p><u>Focus Practical tasks:</u></p> <p>cutting and slicing different food stuff Tasting different food stuff Investigating a healthy diet - that a healthy diet is made up from a variety of different food and drink, as depicted in The Eatwell Plate. Measure and weigh ingredients appropriately. Follow a recipe. Select from and use a range of tools and equipment to perform practical tasks (for example, cutting, chopping, grating, slicing etc) Children will measure, mark out and assemble components with more accuracy.</p> <p><u>Design</u></p> <p>Children will design their own greek dish, considering the order of working</p> <p>Generate ideas for an item, considering its purpose and the user/s Identify a purpose and establish criteria</p>	<p>Look at different examples of tribal houses and discuss their similarities/differences.</p> <p><u>Focus Practical tasks:</u></p> <p>Explore a range of materials and make decisions based on the requirements of the end product. Explore the properties of different materials and think about which ones are suitable for each section of their roof/stable structure. Think about strength, stability, malleability and other features in this exploration lesson. Explore how materials can be made stronger and stiffer. Think of and describe ways of strengthening paper and card, then experiment with strengthening and joining paper and card in order to further develop their ideas. Investigate if different materials are better to catch the wind and rain than others?</p> <p><u>Design</u></p> <p>Children will use their previously learnt skills to draw and annotate a roof for a tribal house. Children will apply what they have learnt to ensure their design is a stable, sturdy structure and uses materials that withstand rain and wind.</p> <p>Generate ideas for an item, considering its purpose and the user/s</p>
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	<p>proposals by modelling ideas Make drawings with labels when designing</p> <p><u>Make</u></p> <p>Children will create a crocodile based on their design? Children will construct an effective pneumatic system to control movement? Children will work safely and effectively with a range of tools and techniques</p> <p>Select tools and techniques for making their product Measure, mark out, cut, score and assemble components with more accuracy</p> <p>Work safely and accurately with a range of simple tools</p> <p>Think about their ideas as they make progress and be willing change things if this helps them improve their work</p> <p>Measure, tape or pin, cut and join fabric with some accuracy</p> <p>Use finishing techniques strengthen and improve the appearance of their product using a range of equipment including ICT</p> <p>Begin to use mechanical systems in their products e.g. gears, pulleys and levers.</p>	<p>for a successful product. Plan the order of their work before starting Make drawings with labels when designing Design purposeful, functional, appealing products for themselves and parents based on design criteria in the context of designing a traditional Greek dip.</p> <p><u>Make</u></p> <p>Children to prepare a dish in the context of following a design to make a new dip. <u>Cut materials accurately and safely by selecting appropriate tools.</u> <u>Know that a healthy diet is made up from a variety of different food and drink, as depicted in The Eatwell Plate. Measure and weigh ingredients appropriately.</u> <u>Follow a recipe</u></p> <p><u>Evaluate</u></p> <p>Children will evaluate their dip against original design criteria. Did it meet the criteria of being part of a healthy and varied diet? Children will also request feedback from parents. Children will consider what was successful and if they would change anything in future recipes.</p>	<p>Identify a purpose and establish criteria for a successful product. Plan the order of their work before starting Explore, develop and communicate design proposals by modelling ideas Make drawings with labels when designing Identify some of the great designers in different areas of study to generate ideas from their designs.</p> <p><u>Make</u></p> <p>Children will follow their designs to create their houses, using the skills they have previously learnt. They will need to also consider building safely and solving problems that may occur.</p> <p>Select tools and techniques for making their product Measure, mark out, cut, score and assemble components with more accuracy Work safely and accurately with a range of simple tools</p> <p>Think about their ideas as they make progress and be willing change things if this helps them improve their work</p> <p>Measure, tape or pin, cut and join fabric with some accuracy</p> <p>Use finishing techniques strengthen and improve the appearance of their product using a range of equipment including ICT</p>
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	<p><b><u>Evaluate</u></b></p> <p>Children will demonstrate their finished moving monster /models, then evaluate both their process and their finished product. Children will identify successful areas of their finished products? Children will identify areas that could be improved upon. Children will describe what they would do differently if they were to make their moving crocodile again?</p> <p>Evaluate their product against original design criteria e.g. how well it meets its intended purpose</p> <p><b>Concepts</b> Design Technology Evaluate</p>	<p>Evaluate their product against original design criteria e.g. how well it meets its intended purpose</p> <p><b>Concepts:</b></p> <ul style="list-style-type: none"> <li>• Nutrition Evaluate</li> </ul>	<p><b><u>Evaluate</u></b></p> <p>Children will evaluate their own design process as well as their finished product . Children will suggest ways in which they would change their design if they were to make their product again.. Children will assess how well their finished product meets the original design criteria?</p> <p>Evaluate their product against original design criteria e.g. how well it meets its intended purpose</p> <p><b>Concepts:</b> Design Technology Evaluate</p>
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Y4	<p><b>Structure</b></p> <p>To design and model a life size Stone Age round house and the features commonly found inside such houses for a stone age family to live in.</p> <p>NC: apply their understanding of how to strengthen, stiffen and reinforce more complex structures</p> <p><u>Investigate, disassembly, evaluate:</u></p> <ul style="list-style-type: none"> <li>Investigate roundhouses and the features.</li> <li>Investigate other houses used in different periods of history</li> <li>Investigate existing products, including drawing them to analyse and understand how they are made.</li> <li>Disassemble products to understand how they work</li> </ul> <p>Evaluate products and identify</p>	<p><b>Electrical</b></p> <p>To design a torch for a child to use to help them see in the dark.</p> <p>NC: understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors</p> <p><u>Investigate, disassembly, evaluate:</u></p> <ul style="list-style-type: none"> <li>Look at a variety of light up equipment. How does it work?</li> <li>Investigate torches. Disassemble one to look at it's component parts</li> </ul> <p>Discuss purposes of lights and investigate different types/styles of lights/torches</p> <p><u>Focus Practical tasks:</u></p> <ul style="list-style-type: none"> <li>Label parts of a torch and name them</li> <li>Recreate a circuit following a given plan</li> <li>Look at and identify scientific representation of circuit components</li> </ul>	<p><b>Textile</b></p> <p>Design a coin purse for a Roman soldier to hold their money in,</p> <p>NC: apply their understanding of how to strengthen, stiffen and reinforce more complex structures</p> <p><u>Investigate, disassembly, evaluate:</u></p> <ul style="list-style-type: none"> <li>Variety of textile bags for all purposes.</li> <li>Disassemble bags.</li> <li>Investigate panels/nets used to create different shapes.</li> <li>Improve on existing designs, giving reasons for choices. Identify some of the great designers in different areas of study to generate ideas from their designs</li> </ul> <p><u>Focus Practical tasks</u></p> <ul style="list-style-type: none"> <li>Investigate a variety of different bags, looking at the nets and panels that go together to create different shapes. Why do we use bags?</li> <li>Try out a variety of different stitching techniques.</li> <li>Investigate the pros and cons of different fabrics for different purposes before selecting fabric for their project</li> </ul>
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	<p>criteria that can be used for their own designs</p> <p><u>Focus Practical tasks:</u></p> <ul style="list-style-type: none"> <li>Investigate how to make structures more stable e.g by widening the base.</li> <li>Cut slots and internal shapes.</li> <li>Create nets.</li> </ul> <p><u>Design.</u></p> <p>Children to design their own tribal round house, modelling in card first</p> <ul style="list-style-type: none"> <li>Generate ideas, considering the purposes for which they are designing</li> </ul> <p>Make labelled drawings from different views showing specific features</p> <p>a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making, if the first attempts fail</p> <p><u>Make</u></p>	<ul style="list-style-type: none"> <li>Make a simple switch using metal components</li> </ul> <p><u>Design:</u></p> <p>Children to design the electronic components and outside structure of their torch, using their IDEAs to support</p> <ul style="list-style-type: none"> <li>Design our torches_</li> <li>Communicate their ideas through detailed labelled drawings</li> <li>Develop a design specification</li> </ul> <p><u>Make</u></p> <p>Select appropriate tools, materials, components and techniques</p> <p>Make modifications as they go along</p> <p><u>Evaluate</u></p> <p>How effective is our ____ in the dark?</p> <p>Evaluate their products, identifying strengths and areas for development, and carrying out appropriate tests</p> <p>Record their evaluations using drawings with labels</p> <p>Evaluate against their original criteria and suggest ways that their product could be improved</p>	<ul style="list-style-type: none"> <li>investigate and select an appropriate fastening device/technique for their project</li> <li>Different fastening methods</li> <li>Measure and mark out to the nearest mm.</li> </ul> <p><u>Design:</u></p> <p>Children to create a labelled design of their textile Roman purse.</p> <ul style="list-style-type: none"> <li>Generate ideas, considering the purposes for which they are designing</li> <li>Make labelled drawings from different views showing specific features</li> </ul> <p>Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making, if the first attempts fail</p> <p><u>Make</u></p> <p>Select appropriate tools, materials, components and techniques</p> <p>Make modifications as they go along</p> <p>Select appropriate tools and techniques for making their product</p> <p>Measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques</p> <p>Join and combine materials and components accurately in temporary and permanent ways</p> <p>Sew using a range of different stitches,</p>
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	<p>Select appropriate tools and techniques for making their product  Measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques  Join and combine materials and components M  Measure, tape or pin, cut and join fabric with some accuracy Use simple graphical communication techniques</p> <p><b>Evaluate</b></p> <p>Evaluate their products, identifying strengths and areas for development, and carrying out appropriate tests  Record their evaluations using drawings with labels Evaluate against their original criteria and suggest ways that their product could be improved</p> <p><b>Concepts:</b>  Design  Evaluation</p>	<p>Create a simple circuit</p> <p><b>Concepts:</b>  Design  Technology</p>	<p>weave and knit Measure, tape or pin, cut and join fabric with some accuracy  <b>Evaluate</b></p> <p>Evaluate their products, identifying strengths and areas for development, and carrying out appropriate tests  Record their evaluations using drawings with labels  Evaluate against their original criteria and suggest ways that their product could be improved</p> <p><b>Concepts:</b>  Design  Evaluate</p> <p><b>Downloaded accompanying planning support</b></p>
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Y5	<p>Computer Control</p> <p>To design and make a celebration card with a light-up element which can be controlled via a computer.</p> <p>NC: understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] apply their understanding of computing to program, monitor and control their products.</p> <p><u>Investigate, disassembly, evaluate:</u></p> <p>Look at the range and styles of cards available at the moment. Investigate design elements such as embossing/cutting etc</p> <p><u>Focus Practical tasks:</u></p>	<p>Food</p> <p>To design a salad farm to fork for a child's healthy diet</p> <p>NC: understand and apply the principles of a healthy and varied diet, prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.</p> <p><u>Investigate, disassembly, evaluate:</u></p> <p>Explore and evaluate a range of existing products in the context of comparing different dips to understand where foods come from.</p> <p>Use the basic principles of a healthy and varied diet in the context of comparing different ingredients in dips and dippers, linClassify and group foodstuff Analyse appearance, smell, taste, texture,</p>	<p>Mechanisms - levers/cams and followers etc</p> <p>To make a moving toy for a child</p> <p>NC: understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]</p> <p><u>Investigate, disassembly, evaluate: Cams</u></p> <p>Look at a variety of different toys/ structures which use Cams</p> <p>Use knowledge of inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products to create their own innovative designs.</p> <p><u>Focus Practical tasks:</u></p> <p>Investigate the shape of cams and the difference this has on the movement. Make a simple Cam to control movement within an object. Investigate how to join materials using appropriate methods.</p>
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	<p>Investigate programming a crumble controller to light up the LED Sparkle  <a href="https://www.youtube.com/watch?v=T8U_5Fxqti&amp;feature=youtu.be">https://www.youtube.com/watch?v=T8U_5Fxqti&amp;feature=youtu.be</a>          Create circuits that employ a number of components (such as LEDs, resistors and transistors).          Cut materials with precision.          Cut accurately and safely to a marked line. Join/combine materials with temporary, fixed or moving joints.c.</p> <p><b>Design:</b> a card for an identified audience for an identified celebration</p> <p>Generate ideas through brainstorming and identify a purpose for their product          Draw up a specification for their design          Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making if the first attempts fail          Use results of investigations, information sources, including ICT when developing design ideas</p> <p><b>Make</b></p>	<p>how grown, how produced, how eaten.  <b>Focus Practical tasks:</b>          cutting and slicing different food stuff          Tasting different food stuff          Investigating a healthy diet - that a healthy diet is made up from a variety of different food and drink, as depicted in The Eatwell Plate.          Measure and weigh ingredients appropriately. Follow a recipe.          Select from and use a range of tools and equipment to perform practical tasks (for example, cutting, chopping, grating, slicing etc) Combine food from different food groups to create healthy products</p> <p><b>Design:</b>          Design a dish for a fairtrade celebration which uses ingredients from a farm.          Plan the order of work choosing appropriate materials, tools and techniques</p> <p><b>Make</b>          Make the dish using good food hygiene techniques.</p> <p><b>Evaluate</b>          Evaluate the product against the original criteria and suggest ways it can be improved.</p> <p>We are using Fairtrade and our class</p>	<p>Use a hand drill to drill tight and loose fit holes.</p> <p><b>Design</b>          Use what they have learnt to design a volcano which erupts using a cam mechanism,</p> <p>Communicate their ideas through detailed labelled drawings Develop a design specification          Generate ideas through brainstorming and identify a purpose for their product          Draw up a specification for their design          Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making if the first attempts fail          Use results of investigations, information sources, including ICT when developing design ideas</p> <p><b>Make</b>          Make a moving toy based on Grimm Tales for a child to use</p> <p>Select appropriate tools, materials, components and technique          Assemble components make working models          Make modifications as they go along          Select appropriate materials, tools and techniques Measure and mark out accurately          Use skills in using different tools and</p>
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	<p><u>Using techniques learn, children to make their electrical celebration card which can be controlled via scratch.</u></p> <p>Card and insert light up element          Select appropriate materials, tools and techniques Measure and mark out accurately          Use skills in using different tools and equipment safely and accurately          Cut and join with accuracy to ensure a good-quality finish to the product          Create circuits that employ a number of components (such as LEDs, resistors and transistors).          Cut materials with precision.          Cut accurately and safely to a marked line.          Join/combine materials with temporary, fixed or moving joints.</p> <p><b>Evaluate</b></p> <p>Evaluate their products, identifying strengths and areas for development, and carrying out appropriate tests          Record their evaluations using drawings with labels          Evaluate against their original criteria and suggest ways that their product could be improved</p>	<p>novel “21 balloons” to design a recipe from around the world and create packaging for a new product.</p> <p><b>Key concepts:</b></p> <p>design          technology          evaluate          nutrition</p>	<p>equipment safely and accurately          Cut and join with accuracy to ensure a good-quality finish to the product</p> <p><b>Evaluate</b></p> <p>Evaluate the product Evaluate a product against the original design specification          Evaluate it personally and seek evaluation from others against the original criteria and suggest ways it can be improved.</p> <p><b>Key concepts:</b></p> <p>Design          Technology          Evaluate</p>
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	<p><b>Concepts:</b> Design Technology Data Evaluate</p>		
Y6	<p><b>Electrical</b></p> <p><b>Design and produce an alarm system which alerts when a charity collection box is removed.</b> (Linked to RE)</p> <p>NC Technical Knowledge: understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]</p> <p><u>Investigate, disassembly, evaluate:</u> Explore and investigate everyday appliances that use electricity Investigate alarms for different uses Investigate use of different circuits</p>	<p><b>Computer Control</b></p> <p><b>Design and make an automated night light for a younger child.</b></p> <p>NC Technical Knowledge: apply their understanding of computing to program, monitor and control their products.</p> <p><u>Investigate, disassembly, evaluate:</u> Explore and investigate everyday appliances that use electricity Investigate programmable toys and gadgets</p> <p><u>Focus Practical tasks:</u> Make simple series circuits Explore and develop electrical circuits including those using switches Investigate switches for different purposes Investigate computer control program (TBC)</p>	<p><b>Food/Nutrition</b></p> <p><b>To design and make a healthy meal which is under 500 calories for a member of staff.</b></p> <p>NC: understand and apply the principles of a healthy and varied diet prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.</p> <p><u>Investigate, disassembly, evaluate:</u> Classify and group foodstuff Analyse appearance, smell, taste, texture, how grown, how produced, how eaten, cost, weight of food</p>

	<p><u>Focus Practical tasks:</u>          Make simple series circuits          Explore and develop electrical circuits including those using switches          Investigate switches for different purposes</p> <p><u>Design:</u></p> <p>Use a comprehensive labelled diagram to design their own alarm system which works through an electronic circuit</p> <p>Communicate their ideas through detailed labelled drawings Develop a design specification</p> <p><u>Make</u></p> <p>Using at least one electronic circuit, children to make a working alarm.</p> <p>Select appropriate tools, materials, components and techniques          Make modifications as they go along</p> <p><u>Evaluate</u></p> <p>Evaluate their products, identifying strengths and areas for development, and</p>	<p><u>Design:</u></p> <p>Design a night light which can light up automatically when controlled by a computer (using Crumble boards and Scratch)</p> <p>Communicate their ideas through detailed labelled drawings          Explore, develop and communicate aspects of their design proposals by modelling their ideas in a variety of ways          (Design an algorithm)</p> <p><u>Make</u></p> <p>Create the circuit and other aesthetic parts to case a night light which can be controlled remotely,          Select appropriate tools, materials, components and techniques          Assemble components make working models          Make modifications as they go along</p> <p><u>Evaluate</u></p> <p>Evaluate their products, identifying strengths and areas for development, and carrying out appropriate tests          Record their evaluations using drawings with labels</p>	<p><u>Focus Practical tasks:</u>          Weigh and measure accurately          prepare food - peel, cut, slice, grate etc          Combine food from different food groups to create healthy products</p> <p><u>Design:</u></p> <p>Design a menu for an adult which is under 500 calories, planning the order of working.</p> <p>Plan the order of work choosing appropriate materials, tools and techniques</p> <p><u>Make</u></p> <p>Make a healthy meal for an adult which consists of less than 500 calories using good food hygiene techniques.</p> <p>Weigh and measure accurately          Apply the rules of basic food hygiene and other safe practices</p> <p><u>Evaluate</u></p> <p>Evaluate the product against the original criteria and suggest ways it can be improved.</p>
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	<p>carrying out appropriate tests Record their evaluations using drawings with labels Evaluate against their original criteria and suggest ways that their product could be improved</p> <p><b>Concepts:</b> Design Evaluate Technology</p>	<p>Evaluate against their original criteria and suggest ways that their product could be improved</p> <p><b>Concepts:</b> Design Evaluate Data Technology</p>	<p><b>Concepts</b> Nutrition Data Evaluate</p>
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