# Moss Valley's Design \& Technology Curriculum 



## Curriculum Overview

|  |  | Autumn | Spring | Summer |
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| 先 | Nursery | Textiles Class Christmas garland | Food <br> Biscuit decorating | Construction <br> Making dwellings- Three Little pigs |
|  | Reception | Textiles <br> Individual Christmas garland | Food <br> Biscuit cutting and decorating | Construction <br> Making dwellings- Three Little Pigs |
| $\stackrel{\rightharpoonup}{\underline{n}}$ | Year 1 | Textiles <br> Sewing a snowman Christmas decoration | Food <br> Making and evaluating a range of fruit snacks (fruit kebabs and smoothies) | Construction <br> Making a wooden planting box. |
|  | Year 2 | Textiles Sewing a Christmas tree decoration | Food <br> Creating European salads | Construction <br> Making a bird box (Aframes) |
| $\begin{aligned} & \dot{0} \\ & \sum_{0}^{3} \\ & \end{aligned}$ | Year 3 | Textiles Sewing Christmas slippers. | Food <br> Making vegetable soup | Construction <br> Making a windmill |


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|  | Year 4 | Textiles <br> Sewing cross-stich Christmas cards | Food <br> Making hot sandwiches | Construction Building a car |
|  | Year 5 <br> Year 6 | Textiles <br> Embroidering <br> Christmas cushions | Food <br> Cooking and preparing Bolognese | Construction <br> Building propeller boats |
| $\begin{aligned} & \tilde{N} \\ & \bar{\omega} \\ & \overline{0} \\ & \stackrel{0}{2} \end{aligned}$ | Year 6 | *alternative if mixed classes <br> Textiles Knitting a scarf | Food <br> Cooking and preparing a variety of pies | Construction <br> Making a fairground ride (carousels) |

# Nursery - What do we want the children to know? 

|  | Autumn | Spring | Summer |
| :---: | :---: | :---: | :---: |
| Overview | Textiles <br> Christmas tree class garland | Food <br> Biscuit decorating | Construction <br> Making dwellings- Three Little pigs |
| Content coverage | Design: <br> - Can use mark making to create a design. <br> - Know that things bought in a shop need to be created first. <br> - Know that different materials have different textures. <br> - Know that the appearance of an object can change when other materials are added. <br> - Can make choices about their design preference. <br> Make: <br> - Can choose appropriate materials to create their design idea. <br> - Know how to use glue to join materials together. <br> Evaluate: <br> - With support from an adult, can think about how they can change their product to improve its appearance. (glitter pens, felt tips, other embellishments). <br> - With support from an adult can adapt their final product. <br> - Know that their product | Design: <br> - I am willing to try new foods. <br> - Know that different foods will have different flavours and textures. <br> Make: <br> - Participate in food making activities using some equipment to combine foods. <br> - Know that tools have to be used safely. <br> - Start to use tools with some control using adult support where necessary (spooning, stirring, piping, spreading). <br> - Show an interest in and describe the texture of foods Evaluate: <br> - Can say if something they have made is good or if they like it. <br> - Can say what they like about a creation when asked. | Design: <br> - Express their own ideas about their design. <br> - Can explore and investigate how structures can fall down (balance, wind, size etc.) <br> - Experiment stacking a range of materials. <br> - Know that we can use a range of materials to build structures. <br> Make: <br> - Know how to stack materials vertically and horizontally to create structures. <br> - Know how to balance materials to create height in a structure. <br> - Know how to use a range of materials to create structures. <br> Evaluate: <br> - Can test the strength and balance of their structures (does it stand up?) <br> - Can explain what they have made to an adult. |


|  | has a purpose and can feel pride in their work when it is displayed in the classroom. |  |  |
| :---: | :---: | :---: | :---: |
| Vocabulary | sequins <br> felt <br> cotton wool <br> glitter <br> shiny <br> soft <br> rough <br> smooth <br> hard <br> glue <br> stick <br> beads | make <br> create <br> feel <br> taste <br> pour <br> pipe <br> spread <br> good <br> bad <br> like <br> dislike | hard <br> soft <br> rough <br> smooth <br> damp <br> slippery <br> bendy <br> big <br> small <br> tall <br> short <br> wide <br> thin <br> sticks <br> bricks <br> straw |

# Reception - What do we want the children to know? 

|  | Autumn | Spring | Summer |
| :---: | :---: | :---: | :---: |
| Overview | Textiles <br> Individual Christmas garland | Food <br> Biscuit cutting and decorating | Construction <br> Making dwellings- Three Little |
| Content coverage | Design: <br> - Can use mark making to create a design. <br> - Know that different materials can create different effects. <br> - Can make choices about materials based on their design ideas. (colour, size, texture, uniformity) <br> Make: <br> - Can use a variety of selected materials to create their design and embellish it. <br> - Can use glue and Velcro to join materials together. <br> - Know how to thread their finished product onto a pipe cleaner/ribbon to create a garland. <br> Evaluate: <br> - With growing independence can think about how they can change their product to improve its appearance. (glitter pens, felt tips, other embellishments). <br> - With growing independence can adapt their final product. <br> - Know that their product has a purpose and can feel pride in their work when it is displayed at home. | Design: <br> - Represent their own ideas. Talk about what they will make before they do it. <br> - Explain the process they will use to make something. <br> Make: <br> - Select the resources they need to roll. shape and decorate. <br> - Know that tools have to be used safely. <br> - Can talk about ingredients being combined to make food. <br> - Use jugs/scoops/spoons with more accuracy. <br> - Can follow instructions to make food. <br> - Experiment with colour and design. <br> Evaluate: <br> - Can test if something they have made fits its purpose <br> - Can say what they like about a creation when asked. | Design: <br> - Express their own ideas about their design. <br> - Can explore and investigate how structures can fall down (balance, wind, size etc.) <br> - Experiment stacking and joining a range of materials. <br> - Know that some materials are natural and some are human-made. <br> - Know that we can use a range of materials to build structures. <br> Make: <br> - Know that some structures will need additional materials to join them (e.g. glue, string, Velcro etc.) <br> - Know how to stack materials vertically and horizontally to create structures. <br> - Know how to balance materials to create height in a structure. <br> - Know how to use and combine a range of materials to create structures. <br> Evaluate: <br> - Can test the strength and balance of their structures (does it stand up? Does it hold together?) <br> - Can explain what they have made to an adult. <br> - Can advise the 3 pigs on how to improve their houses. |


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| :--- | :--- | :--- | :--- |
| Vocabulary | sequins <br> felt <br> cotton wool <br> glitter <br> shiny <br> soft <br> rough <br> smooth <br> hard <br> glue <br> stick <br> Velcro <br> pipe cleaner <br> ribbon <br> thread <br> beads | plan <br> explain <br> imagination <br> ingredients <br> measure <br> chef <br> test | hard <br> soft <br> rough |
|  |  |  | smooth <br> damp <br> slippery <br> bendy |
|  |  |  | big <br> small |
|  |  | tall <br> short <br> wide |  |
|  |  | thin <br> broad <br> sticks <br> bricks <br> straw |  |
|  |  | human-made <br> natural |  |

# Year 1 - What do we want the children to know? 

|  | Autumn | Spring | Summer |
| :---: | :---: | :---: | :---: |
| Overview | Textiles <br> Sewing a snowman Christmas decoration | Food <br> Making and evaluating a range of fruit snacks (fruit kebabs and smoothies) | Construction <br> Making a wooden planting box. |
| Content coverage | Design: <br> - Know products have a clear purpose and an intended user <br> - Know that before something is made, it has to be designed. <br> - Know that products are usually made in factories, often by machinery but sometimes by hand (people). <br> Make: <br> - Know how to explore objects and designs to identify likes and dislikes of the designs <br> -Begin to make their design using appropriate techniques. <br> - Use a simple template. <br> - Join fabrics using glue, staples and thread. <br> - Apply an increasing range of finishing techniques <br> - Talk about and begin to select textiles based on characteristics. <br> Evaluate: <br> - Know how to evaluate their product by discussing how well it works in relation to the purpose | Design: <br> Know the basic principles of a healthy and varied diet. Know where food comes from. (see lesson mapping) <br> -Know that vegetables and fruit come from plants in the earth. <br> - Know where fruits and vegetables come from (countries). <br> - Taste and choose a range of fruits and vegetables based on their preference. <br> Make: <br> -Know how to cut and <br> squeeze (soft foods) <br> ingredients safely and hygienically. <br> - Know how to hold a knife correctly using a simple bridge hold. <br> - Know how to peel, cut and chop a range of soft fruits. <br> -Know that tastes can change when a mixture is created. <br> Evaluate: <br> - Know and explain what tastes they liked or disliked. <br> -Recognise that some foods did not combine. <br> -With support, know how to suggest changes to the recipe | Design: <br> Know a structure can be made stronger, stiffer and more stable <br> - Know that wood comes from trees and has to be processed before we can use it to make things. <br> - Test and explore the properties of different woods and make an informed choice about preference. <br> - Explore size and shape of plant boxes to inform their design. <br> - Test and explore the depth of different containers (non-standard measure) <br> - Inform designs based on choice of fruit being grown. <br> - Discuss a design criteria for a successful planting box. <br> - Create a design using a template. Make: <br> Know we can use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] <br> - Know how to handle equipment and tools safely. <br> - Begin to know how to spot simple hazards when working. <br> - Join materials using wood glue, panel pins and a hammer with support from an adult. <br> - Know how to finish and weatherproof wood (varnishing etc.) |


|  | (design criteria). <br> $\bullet$ When looking at existing <br> products explain what they <br> like and dislike about <br> products and why. <br> $\bullet$ Begin to evaluate their <br> products as they are <br> developed, identifying <br> strengths and possible <br> changes they might make. | to improve it. | Evaluate: <br> $\bullet$ Test out their products by planting <br> their seeds. <br> $\bullet$ Observe and comment on the <br> suitability of their product |
| :--- | :--- | :--- | :--- |
| (watertight, deep enough, varnished |  |  |  |
| etc.) using the pervious design |  |  |  |
| criteria. |  |  |  |, | Vocabulary |
| :--- |
|  |
| design <br> product <br> audience <br> fabric <br> joining <br> pattern <br> decorate <br> better <br> evaluate |

# Year 2 - What do we want the children to know? 

|  | Autumn | Spring | Summer |
| :---: | :---: | :---: | :---: |
| Overview | Textiles <br> Sewing a Christmas tree decoration | Food <br> Creating European salads | Construction <br> Making a bird box (A-frames) |
| Content coverage | Design: <br> - Know we can refine the design as work progresses <br> - Know that a product has to be designed for a reason/ purpose and audience <br> - Know that the chosen design is always discussed and improved before the final design is chosen <br> - Know that products are usually made in factories, often by machinery but sometimes by hand (people). <br> - Develop, model and communicate ideas through talking, mock-ups and drawing. <br> Make: <br> - Know that product designs can be made out of a range of materials. <br> - Know that certain materials are used for a specific purpose and are chosen for those reasons. <br> - Know fabrics can be joined using a running stitch <br> - Know fabric can be | Design: <br> Know the basic principles of a healthy and varied diet. Know where food comes from. (see lesson mapping) <br> -Research traditional salads and vegetables from a range of countries (England, Greece, Turkey) <br> - Know how to identify key ingredients in cold salads and where the produce comes from. <br> -With support, know how to use this research to create a recipe for their own salad. <br> Make: <br> - Know how to peel, cut and chop firmer foods (such as apples, carrots, cheese and tomatoes etc.) in order to make a salad. <br> - Begin to know how to measure or weigh using measuring cups or electronic scales. <br> -With more confidence and skill, know how to hold a knife correctly using a simple bridge hold. <br> - Know that some foods are | Design: <br> Know structures can be made stronger, stiffer and more stable in different ways. <br> - Know that wood comes from trees and has to be processed before we can use it to make things. <br> - Test and explore the properties of different woods and make an informed choice about preference. <br> - Explore size and shape of a range of wooden structures, focusing on how they have been joined. <br> - Know that a cube is made up of 6 equal 2D squares. <br> - Inform designs based on choice of bird size. <br> - Begin to create a design criteria for a successful bird house. <br> Make: <br> Know a range of tools and equipment can be used to perform practical tasks [for example, cutting, shaping, joining and finishing] <br> - Create a bird house using given instructions (pictoral and written). <br> - Know how to measure in cm and accurately mark the wood. <br> - With support, cut accurately measured lengths of wood using a |


|  | decorated by applying beads and sequins. <br> - Talk about the similarities and differences between textiles based on the characteristics of an increasing range of materials. <br> - Use a simple pattern with increasing accuracy. <br> Evaluate: <br> - Know products can be evaluated as they are developed, identifying strengths and possible changes they might make. <br> - Evaluate their work against their design criteria. <br> - Look at a range of existing products explain what they like and dislike about products and why. <br> - With confidence talk about their ideas, saying what they like and dislike about them. | farmed, grown or caught (giving examples) and that these are natural food items. <br> Evaluate: <br> -Know how to evaluate their food product- salad against certain aspects (e.g. taste, smell, appearance). <br> -Continue to suggest ways their recipe could be improved with increasing confidence. | junior hacksaw and specialist gloves. <br> - Sand rough edges with support safely. <br> - Begin to know how to spot simple hazards when working. <br> - Join materials using an A-frame, wood glue, panel pins and a hammer. <br> - Know how to finish and weatherproof wood (varnishing etc.) Evaluate: <br> - Test out their products by placing them in our school grounds. <br> - Observe and comment on the suitability of their product (watertight, being used by a bird, varnished etc.) using the previous design criteria. <br> - Identify easy and difficult aspects of the process. Begin to think about changes they would make. |
| :---: | :---: | :---: | :---: |
| Vocabulary | designers <br> purpose <br> machinery <br> template <br> technique <br> running stitch <br> evaluate <br> strengths <br> improve | sources <br> farmed <br> grown <br> food groups <br> caught <br> man-made <br> portion size <br> taste <br> smell <br> appearance <br> evaluate | ```wood timber watertight varnish mallet panel pins weatherproof join centimetres A-frame hacksaw length height accurate sanding hazard``` |

# Year 3 - What do we want the children to know? 

|  | Autumn | Spring | Summer |
| :---: | :---: | :---: | :---: |
| Overview | Textiles <br> Sewing Christmas slippers. | Food <br> Making vegetable soup | Construction <br> Making a windmill |
| Content coverage | Design: <br> -Know that research is used and carried out in order to inform the design of a product. <br> - Know that there can be a number of different reason/ purposes/ target groups/ key audiences a product is designed for and understand the reasons why. <br> - Know how to start using research to inform basic design criteria. <br> - Know that the chosen design is always discussed and improved before the final design is chosen. <br> Make: <br> - Know how to cut, fold, trace and shape accurately in order to produce a finished product. <br> - Know fabrics can be joined in a range of different ways using zips, tie clasp, toggles, pressstuds and buttons. <br> - Know how to use the | Design: <br> Know the basic principles of a healthy and varied diet. prepare dishes Know where food comes from. (see lesson mapping) <br> Know about seasonality and how a variety of ingredients are grown, reared, caught and processed. (see lesson mapping) <br> - Know where different food products come from and how they are made using research to inform own planning (e.g. where foods are grown, farmed or caught). <br> -Know how to plan a healthy vegetable soup using knowledge of the 'eat well' plate. <br> -Know the difference between savoury and sweet foods. <br> -Research different techniques for making soups e.g. blending, frying. <br> Make: <br> -Know how to demonstrate and use a range of cooking techniques when preparing | Design: <br> Know how to strengthen, stiffen and reinforce more complex structures. <br> - Test and explore a range of windmills and how they work, their purpose and what they are made from. <br> - Know where windmills come from and what they have been used for in the past/present (key person?) <br> - Use prototype research to independently plan and design a working windmill model. <br> - Use research to create a design criteria. <br> Make: <br> Know how to select a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. <br> - Use 2D frames to create 3D structures. <br> - Know how to measure and mark accurately using centimetres. <br> - Know how to spot and avoid hazards when working with tools. <br> - With growing independence |


|  | threading grids to create simple threading patterns-cross-stitch and running stitch. <br> - Use a wide range of simple finishing techniques. <br> - Know how to thread a wide eyelet needle using thread. <br> Evaluate: <br> - Know how to evaluate own work in terms of strength and make suggestions. <br> - Begin to know to evaluate their product against original design criteria e.g. how well it meets its intended purpose <br> - Begin to evaluate familiar products and consider the views of others to improve them. | and cooking dishes (e.g. chopping, grating, sautéing and mixing) a range of different food textures. <br> -Know that hard foods usually need to be cooked for longer periods than soft foods. <br> - Know how to safely handle pots, pans and hobs to cook their dish. <br> - Know how to prepare and cook a dish following a premade plan or recipe. <br> Evaluate: <br> -Begin to evaluate peers final products and compare them to their own to inform future designs. <br> -Know how to suggest improvements to others' and their own products. <br> -Know how to give and take constructive feedback to and from peers. <br> -Know how to compare the final product to the recipe/plan. | accurately measure and cut lengths of material using a range of tools. <br> - Sand rough edges safely. <br> - Join materials using glue, panel pins, a hammer and nuts and bolts. <br> Evaluate: <br> - Test out their products against their design criteria. <br> - Observe and comment on the suitability of their product (movement, stability, appearance and functionality) using the previous design criteria. <br> - Identify ways that they would improve and enhance their designs next time (electrical systems, mechanics, colour etc.). |
| :---: | :---: | :---: | :---: |
| Vocabulary | research target groups product criteria fastening stitch eyelet needle threading grids strength weakness suggestions | vegetables carbohydrates dairy products ingredients grating mixing recipe pre-made plan | nuts and bolts <br> spanner <br> hacksaw <br> function <br> aesthetics <br> stability <br> joining <br> hazard <br> design criteria |

# Year 4 - What do we want the children to know? 

|  | Autumn | Spring | Summer |
| :---: | :---: | :---: | :---: |
| Overview | Textiles Sewing cross-stich Christmas cards | Food <br> Making hot sandwiches | Construction <br> Building a car |
| Content coverage | Design: <br> - Know how to use annotation in order to communicate design features and ensure design criteria has been met. <br> - Know how to develop own design criteria for a product. <br> - Know how to carry out own research in order to inform the design of a product. <br> - Know what design criteria are <br> - Know how to suggest ways in which a design can be improved/ modified. <br> - Know how to produce more than one design through drawing. <br> Make: <br> -Know how to measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques. <br> - Sew using a range of stitches including, backward running stitch | Design: <br> Know the basic principles of a healthy and varied diet to prepare dishes Know where food comes from. (see lesson mapping) <br> Know about seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. (see lesson mapping) <br> -Research hot sandwiches and their components e.g. subs, paninis and toasties. <br> - Know how to use this research to create a plan for their dish. <br> - Know how to plan a savoury meal using knowledge of the eat well plate (containing carbohydrate and vegetables). <br> - Know that sauces, seasoning and additives can change the texture, flavour and presentation of food. <br> - Know the key aspects of planning a dish (e.g. equipment, ingredients and instructions). <br> Make: | Design: <br> Know how to strengthen, stiffen and reinforce more complex structures. <br> - Test and explore a range of model cars and how they work. <br> - Research cars and their makers, focus on the use of wheels and chassis (key person?) <br> - Explore models of car to inform aesthetics of their designs. <br> - Use prototype research to independently plan and design an exploded diagram. <br> - Use research to create a design criteria. <br> - Know how a series circuit works. (buzzer) <br> Make: <br> Know how to select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. <br> - Use 2D frames to create 3D structures. <br> - Know how to measure and mark accurately using centimetres and millimetres. <br> - Know how to spot and avoid |


|  | and over sewing. <br> - Know how to use binka to create a simple sewing product-, back stitch and whipping stitch. <br> - Sew using a range of different stitches, to weave and knit. <br> Evaluate: <br> -Know how to carry out appropriate tests to evaluate their products. <br> - Start to evaluate their work both during and at the end of the assignment. | -Prepare a range of different food types safely and hygienically. <br> -Know what a dietary requirement/allergy is. <br> -Prepare a range of different food types- taking into consideration dietary requirements/allergies. <br> -Continue to know how to demonstrate and use a range of cooking techniques when preparing and cooking dishes (e.g. chopping, grating and mixing, frying, sautéing). <br> Evaluate: <br> - Evaluate peers final products and compare them to their own to inform future designs. <br> -Know how to suggest improvements to others' and their own products. <br> -Know how to give and take constructive feedback to and from peers. <br> -Know how to compare the final product to their recipe/plan. | hazards when working with tools. <br> - Accurately measure and cut lengths of material using a range of tools. <br> - Sand rough edges safely. <br> - Join materials using glue, panel pins, a hammer, nuts and bolts and wires. <br> - Know how to create a simple series circuit with a buzzer. <br> Evaluate: <br> - Test out their products against their design criteria. <br> - Observe and comment on the suitability of their product (movement, stability, appearance and functionality) using the previous design criteria. <br> - Identify ways that they would improve and enhance their designs next time. <br> - Know how to provide constructive feedback to peers on their final product against the design criteria. |
| :---: | :---: | :---: | :---: |
| Vocabulary | annotation product design target audience research design criteria outcomes thread eyelet needle Binka cross-stitch running stitch weaving strength weakness durability | ```safety hygiene equipment ingredients cross-contamination dietary requirements allergies halal kosher vegan vegetarian pescatarian seasoning herbs``` | electrical systems series circuit wires chassis wheels buzzer design criteria exploded diagram |


|  | Autumn | Spring | Summer |
| :---: | :---: | :---: | :---: |
| Overview | Textiles <br> Embroidering <br> Christmas cushions | Food <br> Cooking and preparing Bolognese | Construction <br> Building propeller boats |
| Content coverage | Design: <br> - Know the key audience for whom you are designing your enterprise product for. <br> - Know and understand the target group/ key audience in order to develop a suitable product for them. <br> - Know how to use a set of design criteria based on research surrounding the target group/ key audience <br> Make: <br> - Know how to use skills in using different tools and equipment safely and accurately with growing confidence cut and join with accuracy to ensure a good quality finish to the product. <br> - 1 can create objects (such as a cushion) that employ a seam allowance. <br> - I can join textiles with a combination of stitching techniques (e.g. backstitch for seams and running stitch to attach decoration). | Design: <br> Know the basic principles of a healthy and varied diet to prepare dishes. Know where food comes from. (see lesson mapping). <br> Know about seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. (see lesson mapping). <br> -Taste test and research various Bolognese recipes (e.g. traditional, added mushrooms, tomato based/stock-based). <br> - Know how to use this research to inform their own plans. <br> - Know how to make informed decisions for their plans based on their research. <br> - Know how to adapt a recipe to accommodate multiple people. <br> Make: <br> -Know and check when a meat has been properly cooked. <br> - Know the importance of cooking meat for the correct amount of time, based on packaging advice. <br> - Know how raw meats should be safely stored e.g. bottom of the fridge). <br> - Know how to prepare raw meat (e.g. different chopping board/ utensils and washing hands before and after). | Design: <br> Know how to strengthen, stiffen and reinforce more complex structures. <br> - Test and explore a range of model boats and how they work. <br> - Research propeller boats and their design and how effective they were. <br> - Explore propellers and how they work. <br> - Use prototype research to independently plan and design an exploded diagram. <br> - Use research to create design criteria. <br> - Know how a series circuit works. (motor). <br> Make: <br> Know how to select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. <br> - Know how to spot and avoid hazards when working with tools. <br> - Begin to know how to spot and avoid errors when using technology based construction. <br> - Accurately assemble parts to their products. <br> - Sand rough edges safely. <br> - Join materials using a range of techniques. |


|  | - Know how to choose a type of stitch for a purpose (e.g. crossstitch, running stitch, backstitch and whipping stitch). <br> - Identify the most effective finishing technique in order to maximise the aesthetic value of the product. Evaluate: <br> - Begin to know how to evaluate a product against the original design specification and by carrying out tests. <br> - Evaluate their work both during and at the end of the assignment. | - Know the importance of this health advice when handling more than one type of meat. <br> - Know how to demonstrate correct preparation of food products. <br> Know how to prepare and cook a healthy evening meal using a heat source. <br> Evaluate: <br> -Know how to evaluate different recipes, their strengths and weaknesses. <br> - Know how to use this knowledge to suggest ways they would improve a recipe. <br> - Know how to evaluate presentation as well as taste. | - Know how to create a simple series circuit with a motor. <br> Evaluate: <br> - Test out their products against their design criteria (appearance AND functionality). <br> - Observe and comment on the suitability of their product (movement, stability, aesthetics and mechanism) using the previous design criteria. <br> - Identify ways that they would improve and enhance their designs next time, including how they overcame any issues during the making process. <br> - Know how to provide constructive feedback to peers on their final product against the design criteria. |
| :---: | :---: | :---: | :---: |
| Vocabulary | key audience enterprise disgram prototype cross- stich running stitch backstitch seam wadding eyelet needle design criteria critical improve triangulation | ```safety hygiene raw meats dietary requirements allergies heat source batch cooking speciality delicacy locality peasant food``` | aesthetic <br> properties <br> functionality <br> mechanisms <br> propeller <br> propulsion <br> exploded diagram |

# Year 6 - What do we want the children to know? 

|  | Autumn | Spring | Summer |
| :---: | :---: | :---: | :---: |
| Overview | Textiles <br> Embroidering Christmas cushions | Food <br> Preparing and making pies with a variety of fillings-enterprise | Construction <br> Making a fairground rides (carousels) |
| Content coverage | Design: <br> - Know what a prototype is. <br> - Know how to use diagrams and prototypes in the process. <br> - Know what a cross sectional exploded diagram is. <br> Make: <br> - Aim to make and to achieve a quality product. <br> - Know how to use a broad range of material joining techniques including stitching, mechanical fastenings, heat processes and adhesives. <br> - Investigate and develop skills in modifying the appearance of materials including textiles and other manufactured materials e.g. dying and applique. <br> Evaluate: <br> - Know how to evaluate against their original criteria and suggest ways that their product could be improved. <br> - Evaluate their products, identifying strengths and areas for development, and carrying out appropriate tests. <br> - Evaluate their work both during and at the end of the assignment. <br> - Record their evaluations using drawings with labels. | Design: <br> Know the basic principles of a healthy and varied diet to prepare dishes. Know where food comes from. (see lesson mapping). <br> Know about seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. (see lesson mapping). <br> -Know that market research is important in the planning stage of design. <br> -Know how to conduct market research effectively-taking into account dietary requirements/allergies. <br> -Know how to use market research to inform design plans. <br> -Know how to identify a target market. <br> - Know how to plan for a varying number of people and adapt recipes accordingly. <br> - Know how to organise within a team to achieve the design criteria. research and taste test a variety of pie fillings (meat and potato, chicken and ham, cheese and onion, vegetable) <br> Make: <br> -Know and check when a meat has been properly cooked (juices running | Design: <br> Know how to strengthen, stiffen and reinforce more complex structures. <br> - Explore a range of carousels from past and present and identify similarities and differences. <br> - Research carousels from past and present, focusing on functionality/appearance (Thomas Bradshaw) <br> - Investigate how carousels use light for aesthetics to inform their designs. <br> - Use prototype research to independently plan and design an exploded diagram. <br> - Use research to create a design criteria. <br> - Know how a series circuit works. (bulb) <br> - Research and explore how mechanical systems work (gears) <br> - Know what CAD and CAM is. <br> Make: <br> Know how to use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. |

clear for chicken, not pink inside)

- Know the importance of cooking meat for the correct amount of time, based on packaging advice.
- Know how raw meats should be safely stored e.g. bottom of the fridge).
- Know how to prepare raw meat (e.g. different chopping board/ utensils and washing hands before and after).
- Know the importance of this health advice when handling more than one type of meat.
- Know how to demonstrate correct preparation of food products.
- Know how to prepare and cook a healthy evening meal using a heat source.
- Know how to select and use appropriate cooking techniques on a larger scale e.g. proportions, pan size, tray baking.
-Know how to follow a pre-made recipe with confidence and adapt where necessary for quantities.


## Evaluate:

-Evaluate and compare the number of pies sold across school.
-Demonstrate knowledge of how market research can aid them in adapting further recipes.
$\bullet$ Use market research to identify strengths and weakness in final products.
$\bullet$ Use market research to critique and evaluate cooking techniques.

- Use 2D frames to create 3D structures (curved faces). - Know how to use an exploded diagram to inform a CAD and CAM system (3D printer).
- Know how to measure diameter.
- Know how to spot and avoid hazards when working with tools.
- Accurately measure and cut lengths of material using a range of tools. (including jigsaw).
- Sand rough edges safely.
- Join a range of materials using a range of techniques. - Know which joining method best suits a particular material. - Know how to create a simple series circuit with a bulb.
- Create a series of gears to rotate their carousel.


## Evaluate:

- Test out their products against their design criteria (appearance AND functionality).
- Observe and comment on the suitability of their product (movement, stability, aesthetics and mechanism) using the previous design criteria.
- Identify ways that they would improve and enhance their designs next time, including how they overcame any issues during the making process.
- Know how to provide constructive feedback to peers on their final product against the design criteria.
- Comment on preferences for computer assisted construction compared with practical construction.

| Vocabulary | key audience <br> prototype <br> process <br> enterprise <br> cross-stitch <br> running stitch <br> backstitch <br> whipping stitch <br> seam allowance <br> applique <br> design criteria/target group <br> critical <br> suggestions <br> exploded diagram | enterprise <br> market research supply and demand value <br> costings <br> percentages <br> profit <br> loss <br> savoury <br> Northern delicacy <br> peasant food | CAD <br> CAM <br> Computer assisted construction assemble 3D printer gears series circuit rotation diameter jigsaw |
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Alternative 5/6- Knitting*

## Year 6 - What do we want the children to know?

|  | Autumn | Spring | Summer |
| :--- | :--- | :--- | :--- |
| Overview | Textiles <br> Knitting a scarf |  |  |


|  | -Know how to use a broad <br> range of material joining <br> techniques including stitching, <br> knitting and adhesives. <br> $\bullet$ Investigate and develop skills <br> in modifying the appearance of <br> materials including textiles and <br> other manufactured materials <br> e.g. applique. <br> Evaluate: <br> $\bullet$ Know how to evaluate against <br> their original criteria and <br> suggest ways that their product <br> could be improved. <br> $\bullet$ Evaluate their products, <br> identifying strengths and areas <br> for development, and carrying <br> out appropriate tests. <br> $\bullet$ Evaluate their work both <br> during and at the end of the <br> assignment. <br> $\bullet$ Record their evaluations <br> using drawings with labels. |  |  |
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| Vocabulary |  |  |  |
|  | key audience <br> prototype <br> process <br> enterprise <br> knit <br> purl <br> applique <br> design criteria/target group <br> critical <br> suggestions <br> scatter graph |  |  |

