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| St Just Primary SchoolCurriculum MapDesign Technology |
| **What does Art & Design look like in EYFS?**In planning and guiding what children learn, practitioners must reflect on the different rates at which children are developing and adjust their practice appropriately, referring to the Characteristics of Effective Teaching and Learning These are: playing and exploring – children investigate and experience things, and ‘have a go’; active learning – children concentrate and keep on trying if they encounter difficulties, and enjoy their achievements for their own sake; creating and thinking critically – children have and develop their own ideas, make links between ideas, and develop strategies for doing things. In addition, the Prime Areas of Learning (Personal, Social and Emotional Development, Communication and Language and Physical Development) underpin and are an integral part of children’s learning in all areas. *Please see separate EYFS documents for further information on how our curriculum meets the needs of the children in the Tater Du cohort.* |
| St Just Primary School - Home**Expressive Arts and Design (Exploring and Using Media and Materials)**Children safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. |
| **Expressive Arts and Design (Being Imaginative)**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. |
| **Opportunties to promote skills.*** Provide opportunities to work together to develop and realise creative ideas. Reflect with children on how they have achieved their aims.

 Teach children to develop their colour-mixing techniques to enable them to match the colours they see and want to represent, with step-by-step guidance when appropriate.  Provide a range of materials and tools and teach children to use them with care and precision.  Promote independence, taking care not to introduce too many new things at once.  Encourage children to notice features in the natural world and discuss their responses to what they see.  Help them to define colours, shapes, texture and smells in their own words.  Visit galleries and museums to generate inspiration and conversation about art and artists |
| **Possible vocabulary coverage.**Mark-make, draw, lines, circles, colour, mix, primary, secondary, texture, form, sculpt, print, art, techniques  |
| **Development Matters** |
| **3-4 years*** Explore different materials freely, in order to develop their ideas about how to use them and what to make.
* Develop their own ideas and then decide which materials to use to express them.
* Join different materials and explore different textures.
* Create closed shapes with continuous lines, and begin to use these shapes to represent objects.
* Draw with increasing complexity and detail, such as representing a face with a circle and including details.
* Use drawing to represent ideas like movement or loud noises.
* Show different emotions in their drawings and paintings, like happiness, sadness, fear, etc.
* Explore colour and colour mixing.
 | **Reception** * Explore, use and refine a variety of artistic effects to express

their ideas and feelings.* Return to and build on their previous learning, refining ideas

and developing their ability to represent them.* Create collaboratively, sharing ideas, resources and skills.
 | **ELG – Creating with Materials**To only be assessed against at the end of the Summer Term, using a ‘Best Fit’ judgement.* Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.
* Share their creations, explaining the process they have used.
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| **Physical Development (Moving and Handling)**Children handle equipment and tools effectively, including pencils for writing.**Physical Development** is a Prime Area which underpins many of the skills needed to ensure progression within Expressive Arts and Design. The progression of Physical Development Skill are outlined below. |
| **3-4 Years*** Use large-muscle movements to wave flags and streamers,

paint and make marks.* Choose the right resources to carry out their own plan.
* Use one-handed tools and equipment, for example, making snips in paper with scissors.
* Use a comfortable grip with good control when holding pens and pencils.
 | **Reception*** Develop their small motor skills so that they can use a range of

tools competently, safely and confidently.* Use their core muscle strength to achieve a good posture

when sitting at a table or sitting on the floor.* Develop overall body-strength, balance, coordination and agility.
 | **ELG – Fine Motor Skills**To only be assessed against at the end of the Summer Term, using a ‘Best Fit’ judgement.* Hold a pencil effectively in preparation for fluent writing - using

the tripod grip in almost all cases.* Use a range of small tools, including scissors, paintbrushes and cutlery.
* Begin to show accuracy and care when drawing.
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| **Key Stage 1 National Curriculum Expectations** |
| **Design**Pupils should be taught to:* design purposeful, functional, appealing products for themselves and other users based on design criteria;
* generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.

**Make**Pupils should be taught to:* select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing];
* select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.

**Evaluate**Pupils should be taught to:* explore and evaluate a range of existing products;
* evaluate their ideas and products against design criteria.
 | **Technical Knowledge**Pupils should be taught to:* build structures, exploring how they can be made stronger, stiffer and more stable;
* explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.

**Cooking and Nutrition**Pupils should be taught to:* use the basic principles of a healthy and varied diet to prepare dishes;
* understand where food comes from.
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| **Key Stage 2 National Curriculum Expectations** |
| **Design**Pupils should be taught to:* use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups;
* generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.

**Make**Pupils should be taught to:* select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately;
* select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.

**Evaluate**Pupils should be taught to:* investigate and analyse a range of existing products;
* evaluate their ideas and products against their own design criteria and consider the views of others to improve their work;
* understand how key events and individuals in design and technology have helped shape the world.
 | **Technical Knowledge*** apply their understanding of how to strengthen, stiffen and reinforce more complex structures;
* understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages];
* 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.

**Cooking and Nutrition**Pupils should be taught to:* 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.
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| **Components**: content and skills that will be taught |
| **YEAR 1** |
| Autumn  | Spring | Summer |
| Our School!  | Let’s Celebrate! | Posting and Places | How does your garden grow? | Animal Allsorts | To the rescue  |
| Build a new classroom | Design and make a jelly |  | 3d sculpture with natural and other materials | Animal puppets |  |
| **Outcome** |
| To design and build a new classroom for the school | To design and make a celebratory jelly |  | To design and make a 3d sculpture | To design and make an animal puppet |  |
| **Sequencing** |
| **1.I can look at examples of buildings*****What makes it strong?******How is it joined?******What materials are used and why?*****2.I can generate many ideas as a group****3.I can design my own classroom and say how I am going to join the walls****4.I can explore different materials for strength, joining and flexibility****5.I can make my classroom****6.I can evaluate my house against the design criteria** | **1.I can look at different jellies (unmade and made)*****What are their textures? Colour? Ingredients etc?*****2.I can look at and discuss recipes to make jellies****3.I can design my own jelly and explain how I will make it with pictures and key words****4.I can make my jelly following hygiene rules****5.I can evaluate my jelly** |  | **1.I can look at other 3d sculptures and look at materials used*****What makes them stand up?******What materials are flexible?******How are they joined?******Which do you like and why?*****2.I can explore different materials for stiffness and flexibility****3.I can explore different ways to join materials****4.I can design my own 3d sculpture****5.I can make my 3d sculpture****6.I can evaluate my 3d sculpture** | **1.I can look at other animal puppets*****What materials are used? Why?******What do you like? Why?******What joins are being used? What stitches can you see?*****2.I can design my own animal puppet****3.I can practice a running stitch****4.I can add decoration to my puppet design****5.I can make my animal puppet****6.I can evaluate my animal puppet** |  |
| **Vocabulary** |
| classroomJoiningMaterialsStiffeningFlexibleStrengthDesignEvaluateMake | JellyRecipeSafetyHygieneInstructionsDesignMakeIngredientsEvaluate |  | Sculpture3dStiffnessStrengthFlexibilityDesignMakeEvaluateJoiningRollPinchFlatten | PuppetRunning stitchDesignDecorationMakeGlueJoinEvaluate |  |
| **Skills progression** |
| **Design** | **Make** | **Evaluate** | **Technical Knowledge** | **Cooking & Nutrition** |
| -use their knowledge of existing products and their own experience to help generate ideas as a group-design products -explain how their products look and talk through drawings-design simple models-understand and follow simple design criteria | -with support, follow a simple plan or recipe lead by the class teacher-begin to select from a range of hand tools and equipment safely and hygienically-select from materials, textiles and components according to characteristics-with help, measure and mark out-assemble, join and combine materials or ingredients-manipulate fabrics in simple ways to create a desired effect-use a basic running stitch-cut, peel and grate ingredients; weighing and measuring ingredients-begin to use simple finishing techniques, such as decorations | -explore existing products mainly through discussions, comparisons and simple written evaluations-explain positives and things to improve for existing products-explore what materials products are made from-talk about their design ideas-start to make changes and refine their existing design-evaluate their products and ideas against their simple design criteria | -build simple structures, exploring how they can be made stronger, stiffer and more stable-talk about and start to understand the simple working characteristics of materials-explore and create products using levers and wheels | -explain where in the world different foods originate from-understand that all food comes from plants or animals-name and sort foods into five groups-everyone should eat at least 5 portions of fruit and vegetables every day and start to explain why-design and prepare dishes |

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| **Design and Technology- Year 1****Key Stage 1 Objectives** | 1 | 2 | 3 | 4 | 5 | 6 |
| Can we fix it? | Let’s celebrate! | Posting and places | How does your garden grow? | Animal allsorts! | To the recue! |
| **Design** |  |  |  |  |  |  |
| 1 | design purposeful, functional, appealing products for themselves and other users based on design criteria | **√** | **√** |  |  | **√** |  |
| 2 | generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology | **√** | **√** |  |  | **√** |  |
| **Make** |  |  |  |  |  |  |
| 1 | select from and use a range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing) | **√** | **√** |  |  | **√** |  |
| 2 | select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics | **√** | **√** |  |  | **√** |  |
| **Evaluate** |  |  |  |  |  |  |
| 1 | explore and evaluate a range of existing products | **√** | **√** |  |  | **√** |  |
| 2 | evaluate their ideas and products against design criteria | **√** | **√** |  |  | **√** |  |
| **Technical knowledge**  |  |  |  |  |  |  |
| 1 | build structures, exploring how they can be made stronger, stiffer and more stable. | **√** |  |  |  | **√** |  |
| 2 | explore and use mechanisms (for example, levers, sliders, wheels and axles), in their products | **√** |  |  |  | **√** |  |
| **Cooking and Nutrition**  |  |  |  |  |  |  |
| 1 | use the basic principles of a healthy and varied diet to prepare dishes |  | **√** |  |  |  |  |
| 2 | understand where food comes from |  | **√** |  |  |  |  |

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| **YEAR 2** |
| Autumn  | Spring | Summer |
| What do I need to be me? |  | How do I get off the ground? | How does something grow? | Around the world | Is Australia the place for me? |

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| Design and make a fruit salad |  | Sculpture of a 3d bird  |  | Moving toy | Stitching/ sowing- making a Australian costume for our dancer |
| **Outcome** |
| To design and make healthy fruit salad |  | To create a 3d bird sculpture |  | To design and make a moving toy | To design and make a costume for a Brazilian dancer |
| **Sequencing** |
| **1.I can look at examples of fruits*****What good groups can you see?******What does each food group do for your body?*****2.I can taste different fruits and explain which I like and why****3.I can design my own healthy fruit salad****4.I can make my own healthy fruit salad****5.I can evaluate my own healthy fruit salad** |  | **1.I can look at examples of other 3d sculptures****2.I can look how different materials have been used for strength****3.I can look at and practice joining techniques****4.I can design my own 3d bird****5.I can make my own 3d bird** |  | **1.I can look at moving toys*****What makes them move?******What materials are being used?******What components can you see?******Can you label these on a diagram?*****2.I can design my own moving toy for a particular age group****3.I can practice joining different materials****4.I can explore different materials depending on strength, flexibility etc****5.I can make my own moving toy****6.I can decorate my moving toy****7.I can evaluate my moving toy** | **1.I can look at other costumes*****What does the materials feel like?******What do you notice about the way they are joined?******What do you like/ not like? Why?******When might you have seen these around?*****2.I can generate my own ideas and designs and label how I will make it with basic sentences****3.I can practice a basic running stitch****4.I can make my own costume****5.I can evaluate my costume** |
| **Vocabulary** |
| HealthyBalanced dietTasteTextureProportionsCutSliceGrateDesignMakeEvaluateHygiene |  | SculptureModel3dShapesMaterials |  | Moving toyAxleComponentsDecorationLeverDiagramStrengthFlexibilityStiffnessJoiningEvaluateDesignMake | CultureRunning stitchColoursMaterialsJoinsFlexibleDecorationDesignMakeEvaluate |
| **Skills progression** |
| **Design** | **Make** | **Evaluate** | **Technical Knowledge** | **Cooking & Nutrition** |
| -use their knowledge of existing products and their own experience to help generate ideas-design products that have purpose-explain how their products look and talk through annotated drawings-design simple models-test ideas-understand and follow simple design criteria | -with support, follow a simple plan or recipe-begin to select from a range of hand tools and equipment safely and hygienically-select from a range of materials, textiles and components according to characteristics-with help, measure and mark out-assemble, join and combine materials or ingredients-manipulate fabrics in simple ways to create a desired effect-use a basic running stitch-cut, peel and grate ingredients; weighing and measuring ingredients-begin to use simple finishing techniques, such as decorations | -explore and evaluate existing products mainly through discussions, comparisons and simple written evaluations-explain positives and things to improve for existing products-explore what materials products are made from-talk about their design ideas-start to make changes and refine their existing design-evaluate their products and ideas against their simple design criteria | -build simple structures, exploring how they can be made stronger, stiffer and more stable-talk about and start to understand the simple working characteristics of materials-explore and create products using levers and wheels | -explain where in the world different foods originate from-understand that all food comes from plants or animals-food has to be farmed, grown elsewhere or caught-name and sort foods into five groups-everyone should eat at least 5 portions of fruit and vegetables every day and start to explain why-design and prepare dishes |

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| **Design and Technology- Year 2****Key Stage 1 Objectives** | 1 | 2 | 3 | 4 | 5 | 6 |
| What do I need to be me? |  | How do I get off the ground? | How do things grow? | Around the world | Is Australia the place for me? |
| **Design** |  |  |  |  |  |  |
| 1 | design purposeful, functional, appealing products for themselves and other users based on design criteria | **√** |  | **√** |  | **√** | **√** |
| 2 | generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology | **√** |  | **√** |  | **√** | **√** |
| **Make** |  |  |  |  |  |  |
| 1 | select from and use a range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing) | **√** |  | **√** |  | **√** | **√** |
| 2 | select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics | **√** |  | **√** |  | **√** | **√** |
| **Evaluate** |  |  |  |  |  |  |
| 1 | explore and evaluate a range of existing products | **√** |  | **√** |  | **√** | **√** |
| 2 | evaluate their ideas and products against design criteria | **√** |  | **√** |  | **√** | **√** |
| **Technical knowledge**  |  |  |  |  |  |  |
| 1 | build structures, exploring how they can be made stronger, stiffer and more stable. |  |  | **√** |  | **√** |  |
| 2 | explore and use mechanisms (for example, levers, sliders, wheels and axles), in their products |  |  |  |  | **√** |  |
| **Cooking and Nutrition**  |  |  |  |  |  |  |
| 1 | use the basic principles of a healthy and varied diet to prepare dishes | **√** |  |  |  |  |  |
| 2 | understand where food comes from | **√** |  |  |  |  |  |

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| **YEAR 3** |
| Autumn  | Spring | Summer |
| Stone Age- Set in stone | Magnetism- What’s the Attraction | Shake, Rock and Roll | Why are animals human too? | Romans | Source to Sea  |

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| Simple shelter for a hunterCoil Pots |  | Sculptures of dinosaur fossils |  | Make bread for a Roman familyVegetable soup |  |
| **Outcome** |
| To design and make a simple shelter for a hunter |  | To design and make a sculpture of a dinosaur fossil |  | To design and make Roman vegetable soup and bread |  |
| **Sequencing** |
| **1.I can look at examples of simple Stone Age shelters*****What do you notice?******What materials are used and why?******How are they joined?******Which materials are best suited and why?*****2.I can generate and design multiple ideas with labelled diagrams****3.I can practice joining materials****4.I can measure, mark and cut materials with some degree of accuracy****5.I can make my shelter****6.I can decorate my Stone Age shelter****7.I can evaluate my shelter** |  | **1.I can look at different ways that fossils are made****2.I can practice rolling, pinching, crimping, flattening etc****3.I can design a range of different fossils with labelled diagrams****4.I can make my own fossil against a specific design criteria****5.I can evaluate my own fossil** |  | **1.I can look at different ingredients used back in the Roman days*****Do we still get these ingredients? Why?******How do our soup recipes differ to back then? Why?*****2.I can taste different vegetables and breads and evaluate them on texture, colour, taste etc****3.I can design and write my own recipe guide for making a Roman soup****4.I can make my own Roman soup****5.I can evaluate my own Roman soup** |  |
| **Vocabulary** |
| ShelterStone AgeMaterialsJoiningStrengthenStiffenSuitabilityMeasureMarkCutAccurateSafetyDecorateDesignMakeEvaluate |  | FossilDinosaurImprintMarkingsJoiningRollingPinchingCrimpingFlatteningDesignMakeEvaluate |  | RomansIngredientsRecipeHygieneHealthyBalanced DietIngredientsTasteTextureAppearanceCutSliceGrateBoilTemperatureDesignMakeEvaluate |  |
| **Skills progression** |
| **Design** | **Make** | **Evaluate** | **Technical Knowledge** | **Cooking & Nutrition** |
| -identify the features of their products that will appeal-look at a range of existing products to help generate ideas-design appealing products with a purpose-explain how particular parts of their products work-use annotated sketches to communicate ideas-explore different initial ideas as a group before coming up with final design-test out ideas-develop and follow a simple criteria | -select tools and equipment and explain choices with growing confidence-select from a range of materials -place main stages of making in a logical order-learn to use a range of equipment safely and hygienically-measure and mark with growing confidence-cut, join and shape materials with some degree of accuracy-join textiles using a sewing technique-improve the final product | - evaluate existing products, explaining the purpose of the product and whether it has been designed to meet the purpose-explore why materials might be selected-alter plans depending on feed back and improvements needed-evaluate their product against their original design | -strengthen, stiffen and reinforce complex structures-explain how levers create movement | -start to know when, where and how food in grown in the UK, Europe and the wider world-understand how to prepare and cook a savoury dish safely and hygienically-use a heat source to cook ingredients whilst controlling temperature-mashing, whisking, crushing, grating, cutting, kneading and baking-explain that a healthy diet is made up of a balance of foods-prepare ingredients using appropriate utensils-independently follow a recipe |

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| **Design and Technology- Year 3****Key Stage 2 Objectives** | 1 | 2 | 3 | 4 | 5 | 6 |
| Set In Stone | What’s The Attraction | Shake Rattle And Roll | Are Humans animal Too? | What did The Romans Do For Us? | Source to Sea |
| **Design** |  |  |  |  |  |  |
| 1 | use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups | **√** | x |  |  | x | **√** |
| 2 | generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design | **√** | x | **√** |  | x | **√** |
| **Make** |  |  |  |  |  |  |
| 1 | select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing), accurately | **√** | x | **√** |  | x | **√** |
| 2 | select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities | **√** | x | **√** |  | x | **√** |
| **Evaluate** |  |  |  |  |  |  |
| 1 | investigate and analyse a range of existing products | **√** | x |  |  | x | **√** |
| 2 | evaluate their ideas and products against their own design criteria and consider the views of others to improve their work | **√** | x |  |  |  | **√** |
| 3 | understand how key events and individuals in design and technology have helped shape the world | **√** |  | **√** |  |  |  |
| **Technical knowledge**  |  |  |  |  |  |  |
| 1 | apply their understanding of how to strengthen, stiffen and reinforce more complex structures | **√** |  |  |  |  |  |
| 2 | understand and use mechanical systems in their products (for example, gears, pulleys, cams, levers and linkages) |  |  |  |  |  |  |
| 3 | understand and use electrical systems in their products (for example, series circuits incorporating switches, bulbs, buzzers and motors |  |  |  |  |  |  |
| 4 | apply their understanding of computing to programme, monitor and control their products. |  |  |  |  |  |  |
| **Cooking and Nutrition**  |  |  |  |  |  |  |
| 1 | understand and apply the principles of a healthy and varied diet |  |  |  | x |  | x |
| 2 | prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques |  |  |  |  |  | x |
| 3 | understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed |  |  |  |  |  | x |

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| **YEAR 4** |
| Autumn  | Spring | Summer |
|  | Digestive System- Where does my food go? | Were the Dark Ages dark? |  | Rainforests |  |

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|  | Create a fruit smoothie that is good for the digestive system | Embroider a tapestry of their own story |  | Wire sculpture of an Amazon animal |  |
| **Composite/ Outcome** |
|  | To design and create a fruit smoothie | To design and make an embroidered tapestry |  | To design and make a wire sculpture of an Amazon animal |  |
| **Sequencing** |
|  | **1.I can pick out the key features of the digestive system****2.I can look at food items and which are good for the digestive system****3.I can look at examples of good food****4.I can design my own fruit smoothie with labelled diagrams****5.I can make my own fruit smoothie****6.I can evaluate my fruit smoothie** | **1.I can look at the layout and design of the Bayeaux Tapestry****2.I can practice a running stitch and other stitches for appearance****3.I can design multiple Tapestries based on a design concept****4.I can make my own tapestry****5.I can evaluate my tapestry based on the design criteria** |  | **1.I can look at examples of wire sculptures*****How do they stand up?******How are they supported?******How are they made strong?******How are they joined?*****2.I can design multiple generate ideas with labelled diagrams and exploded diagrams****3.I can practice sculpting safely with wire****4.I can explore joining techniques****5.I can design and make my final sculpture****6.I can use finishing techniques to improve my sculpture****7.I can evaluate my sculpture** |  |
| **Vocabulary** |
|  | Digestive systemJoinFlexibilityAnatomyDiagramDesignMakeHealthyBalanced DietSliceGrateMeasureEvaluate | TapestryRunning stitchSewingPersonal storyNeedleThreadEyeDesignMakeEvaluate |  | Sculpture3dWireJoiningFlexibleRigidStrengthSafetyExploded diagramsDesignMakeEvaluate |  |
| **Skills progression** |
| **Design** | **Make** | **Evaluate** | **Technical Knowledge** | **Cooking & Nutrition** |
| -identify the features of their products that will appeal-broad range of existing products to help generate ideas-design appealing products with a clear purpose-explain how particular parts of their products work-use annotated sketches to communicate ideas-explore different initial ideas before coming up with final design- explain choice of materials including functionality and aesthetic-test out ideas-develop and follow a simple criteria | -carefully select a range of tools and equipment and explain choices with growing confidence-select from a range of materials according to functionality and aesthetic-place main stages of making in a systematic order-learn to use a range of equipment safely and hygienically-measure and mark with growing confidence-cut, join, shape and score materials with some degree of accuracy-join textiles using a sewing technique-use a finishing technique to improve the final product | -explore and evaluate existing products, explaining the purpose of the product and whether it has been designed to meet the purpose-explore why materials might be selected-alter plans depending on feedback and improvements needed-evaluate their product against their original design | -understand that materials have both functional and aesthetic properties-strengthen, stiffen and reinforce complex structures-explain how levers create movement | -start to know when, where and how food in grown in the UK, Europe and the wider world-understand how to prepare and cook a variety of savoury dishes safely and hygienically-use a heat source to cook ingredients whilst controlling temperature-mashing, whisking, crushing, grating, cutting, kneading and baking-explain that a healthy diet is made up of a balance of foods-prepare ingredients using appropriate utensils-measure and weigh ingredients-independently follow a recipe |

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| **Design and Technology- Year 4****Key Stage 2 Objectives** | 1 | 2 | 3 | 4 | 5 | 6 |
|  | Where does our food go? | Were the dark ages dark? |  | Could you survive in a rainforest? |  |
| **Design** |  |  |  |  |  |  |
| 1 | use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups |  |  |  |  | **√** |  |
| 2 | generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design |  |  | **√** |  | **√** |  |
| **Make** |  |  |  |  |  |  |
| 1 | select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing), accurately |  | **√** | **√** |  | **√** |  |
| 2 | select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities |  | **√** | **√** |  | **√** |  |
| **Evaluate** |  |  |  |  |  |  |
| 1 | investigate and analyse a range of existing products |  | **√** |  |  | **√** |  |
| 2 | evaluate their ideas and products against their own design criteria and consider the views of others to improve their work |  | **√** | **√** |  | **√** |  |
| 3 | understand how key events and individuals in design and technology have helped shape the world |  | **√** | **√** |  |  |  |
| **Technical knowledge**  |  |  |  |  |  |  |
| 1 | apply their understanding of how to strengthen, stiffen and reinforce more complex structures |  |  |  |  | **√** |  |
| 2 | understand and use mechanical systems in their products (for example, gears, pulleys, cams, levers and linkages) |  |  |  |  |  |  |
| 3 | understand and use electrical systems in their products (for example, series circuits incorporating switches, bulbs, buzzers and motors |  |  |  |  |  |  |
| 4 | apply their understanding of computing to programme, monitor and control their products. |  |  |  |  |  |  |
| **Cooking and Nutrition**  |  |  |  |  |  |  |
| 1 | understand and apply the principles of a healthy and varied diet |  | **√** |  |  |  |  |
| 2 | prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques |  | **√** |  |  |  |  |
| 3 | understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed |  | **√** |  |  |  |  |

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| **YEAR 5** |
| Autumn  | Spring | Summer |
| To the stars- Cosmic |  | Ancient Greeks |  | Indus Valley |  |

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| To create a replica of the solar system |  | Design and make Greek food for a family |  | Wire/ clay/ mod roc Indus Valley sculpture |  |
| **Composite/ Outcome** |
| To design and make a replica of the solar system |  | To design and make Greek food |  | To design and make an Indus Valley sculpture |  |
| **Sequencing** |
| **1.I can analyse the layout of the Solar System****2.I can look at other examples of solar system structures****3.I can look at joining techniques****4.I can experiment with different materials for strength and flexibility****5.I can design my own solar system with exploded and labelled diagrams****6.I can make my own solar system****7.I can evaluate my own solar system** |  | **1.I can look at examples of Greek food*****What ingredients are used?******What do you like? Why?******What do you think about the taste, texture, aroma etc?*****2.I can look at Greek recipes****3.I can generate multiple designs for Greek recipes against a design criteria with exploded and labelled diagrams****4.I can safely and hygienically make a Greek recipe****5.I can evaluate my Greek food** |  | **1.I can look at other sculptures*****What do you like/ not like? Why?******How is it stood up?******What materials are strong, flexible, stiff? Etc*****2.I can explore materials with joining and manipulation****3.I can generate multiple designs with exploded, detailed and labelled diagrams****4.I can design and make my final sculpture****5.I can use finishing techniques to improve and alter my designs****6.I can evaluate my sculpture based on the design criteria** |  |
| **Vocabulary** |
| Solar systemReplicaWireStructureJoinFlexibilityStrengthStrengthExploded diagramDesignMakeEvaluate |  | GreekFoodRecipesDiagramsStep by stepHygieneSafetyDesignChopCutSliceGrateBoilHealthBalanced dietMakeEvaluate |  | SculpturesMaterialsStrengthenFlexibilityStiffenDiagramsColourMaterialsJoiningCutMarkMeasureDesignMakeEvaluate |  |
| **Skills progression** |
| **Design** | **Make** | **Evaluate** | **Technical Knowledge** | **Cooking & Nutrition** |
| -use research to inform and develop detailed design(innovative and appealing)-know of a broad range of existing products to generate ideas-design products with a specific purpose-explain how particular parts of their products work-annotated sketches-discuss ideas as a group and come to a final design | - plan and suggest next steps-select from a range of tools and equipment; explaining their choices-select a range of materials according to functionality - create a guide-follow hygiene procedures-take measurements needed-cut a range of materials with growing precision and accuracy-shape and score with growing precision and accuracy-assemble, join, tape, pin, cut, shape and combine materials with growing accuracy | -complete a competitor analysis of other products-evaluate quality, manufacture and fitness for purpose of their finished product-evaluate their finished product against their original design criteria  | -apply their understanding of how to strengthen, stiffen and reinforce complex structures to create useful products | -know and give examples of food that is grown, reared and caught in the UK, Europe and wider world (present and past)-understand about availability and how this may affect planning recipes-prepare and cook a dish safely and hygienically using a heat source -adapt recipes (appearance, taste, texture and aroma)-measure ingredients with growing accuracy from a recipe-independently follow a recipe |

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| **Design and Technology- Year 5****Key Stage 2 Objectives** | 1 | 2 | 3 | 4 | 5 | 6 |
| To the stars |  | Ancient Greeks |  | Indus Valley |  |
| **Design** |  |  |  |  |  |  |
| 1 | use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups | **√** |  | **√** |  | **√** |  |
| 2 | generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design | **√** |  | **√** |  | **√** |  |
| **Make** |  |  |  |  |  |  |
| 1 | select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing), accurately | **√** |  | **√** |  | **√** |  |
| 2 | select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities | **√** |  | **√** |  | **√** |  |
| **Evaluate** |  |  |  |  |  |  |
| 1 | investigate and analyse a range of existing products | **√** |  | **√** |  |  |  |
| 2 | evaluate their ideas and products against their own design criteria and consider the views of others to improve their work | **√** |  | **√** |  | **√** |  |
| 3 | understand how key events and individuals in design and technology have helped shape the world |  |  | **√** |  |  |  |
| **Technical knowledge**  |  |  |  |  |  |  |
| 1 | apply their understanding of how to strengthen, stiffen and reinforce more complex structures | **√** |  |  |  | **√** |  |
| 2 | understand and use mechanical systems in their products (for example, gears, pulleys, cams, levers and linkages) | **√** |  |  |  |  |  |
| 3 | understand and use electrical systems in their products (for example, series circuits incorporating switches, bulbs, buzzers and motors |  |  |  |  |  |  |
| 4 | apply their understanding of computing to programme, monitor and control their products. |  |  |  |  |  |  |
| **Cooking and Nutrition**  |  |  |  |  |  |  |
| 1 | understand and apply the principles of a healthy and varied diet |  |  | **√** |  |  |  |
| 2 | prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques |  |  | **√** |  |  |  |
| 3 | understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed |  |  | **√** |  |  |  |

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| **YEAR 6** |
| Autumn  | Spring | Summer |
| Who’s in control? |  |  |  | Extreme Earth | Beyond 1066- World War 2 & Battle of Britain |
| Moving toyCAM mechanisms |  |  |  |  | Wartime food |

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| **Composite/ Outcome** |
| To create a moving toyTo use CAM mechanisms |  |  |  |  | To design and create a wartime cake |
| **Sequencing** |
| **1. Look at and investigate a variety of moving toys.****2. Investigate CAM mechanisms****3. Investigate CAMS (eccentric, snail, drop, oval, …)****4. Design criteria & developing ideas****5. Design specification (finalise design) & plan****6. Make** **7. Evaluate**  |  |  |  |  | **1.Research rationed food during WW2*****What ingredients were /were not readily available?******Why?*****2. Importance of food hygiene** **3. Design & create a wartime cake****4. Evaluate a savory dish** |
| **Vocabulary** |
| CAMlinear motionfolloweraxle / shaftTriangulationRigiditySpecificationMechanismMovementEccentric CAMSnail CAMDrop CAMDowelClampHacksawDesignEvaluation |  |  |  |  | Texture Taste Product Hygiene Implication Rationing Savory Quantity Health and SafetyBridgeClaw |
| **Skills progression** |
| **Design** | **Make** | **Evaluate** | **Technical Knowledge** | **Cooking & Nutrition** |
| -use research to inform and develop detailed design(innovative, functional, fit for purpose, target market and appealing)-know of a broad range of existing products to generate ideas-design products with a clear purpose-explain how particular parts of their products work-annotated sketches; cross- sectional drawings and exploded diagrams-generate a range of ideas and come to a final design-consider costings of resources | -independently plan and suggest next steps-select from a wide range of tools and equipment; explaining their choices-select a range of materials according to functionality and aesthetic- create a step-by-step guide-follow hygiene procedures-take exact measurements within 1 millimetre-cut a range of materials with precision and accuracy-shape and score with precision and accuracy-assemble, join, tape, pin, cut, shape and combine materials with accuracy-refine the finish to improve appearance | -complete a detailed competitor analysis of other products-critically evaluate quality, manufacture and fitness for purpose of their finished product-evaluate their finished product against their original design criteria (make any changes needed) | -apply their understanding of how to strengthen, stiffen and reinforce complex structures to create useful products-understand the ‘input, process and output’ of mechanical and electrical systems-explain how mechanical systems such as CAMS create movement-apply their understanding of computing to program, monitor and control a product | -know, explain and give examples of food that is grown, reared and caught in the UK, Europe and wider world (present and past)-understand about availability and how this may affect planning recipes-understand that food is processed into ingredients for cooking-prepare and cook a dish safely and hygienically using a heat source -adapt and refine recipes (appearance, taste, texture and aroma)-alter methods-measure ingredients accurately from a recipe-independently follow a recipe |

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| **Design and Technology- Year 6****Key Stage 2 Objectives** | 1 | 2 | 3 | 4 | 5 | 6 |
| Who is in control? |  |  |  |  | World War 2/ Battle of Britain  |
| **Design** |  |  |  |  |  |  |
| 1 | use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups | **√** |  |  |  |  | **√** |
| 2 | generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design | **√** |  |  |  |  | **√** |
| **Make** |  |  |  |  |  |  |
| 1 | select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing), accurately | **√** |  |  |  |  | **√** |
| 2 | select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities | **√** |  |  |  |  | **√** |
| **Evaluate** |  |  |  |  |  |  |
| 1 | investigate and analyse a range of existing products | **√** |  |  |  |  | **√** |
| 2 | evaluate their ideas and products against their own design criteria and consider the views of others to improve their work | **√** |  |  |  |  | **√** |
| 3 | understand how key events and individuals in design and technology have helped shape the world |  |  |  |  |  | **√** |
| **Technical knowledge**  |  |  |  |  |  |  |
| 1 | apply their understanding of how to strengthen, stiffen and reinforce more complex structures | **√** |  |  |  |  |  |
| 2 | understand and use mechanical systems in their products (for example, gears, pulleys, cams, levers and linkages) | **√** |  |  |  |  |  |
| 3 | understand and use electrical systems in their products (for example, series circuits incorporating switches, bulbs, buzzers and motors | **√** |  |  |  |  |  |
| 4 | apply their understanding of computing to programme, monitor and control their products. |  |  |  |  |  |  |
| **Cooking and Nutrition**  |  |  |  |  |  |  |
| 1 | understand and apply the principles of a healthy and varied diet |  |  |  |  |  | **√** |
| 2 | prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques |  |  |  |  |  | **√** |
| 3 | understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed |  |  |  |  |  | **√** |

**SEND STATEMENT:**

**At St Just Primary School, we value each child’s unique qualities and strengths. We have high aspirations and expectations for all children with Special Educational Needs and Disabilities (SEND) and strive to ensure that all SEND pupils make rapid and sustained progress from their starting point. We will strive to remove barriers to learning to ensure that all SEND pupils access, participate and engage with their learning therefore enabling them to fulfil their potential.**