

Pope Paul Catholic Primary School Design and Technology Skills Progression

| Skill | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
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| Lesson 1: Background Research Exploring context and existing products | Understand what a product is and who it is for Understand how a product works and how it is used Identify where you might find this product | Understand what a product is and who it is for Understand how a product works and how it is used Identify where you might find this product Identify the materials used to make the product Express an opinion about the product | Identify who made the product, when it was made and what its purpose is Identify what the product has been made from Evaluate the product on design and use | Identify who made the product, when it was made and what its purpose is Identify what the product has been made from Evaluate the product on design and use | Identify who made the product, when it was made and what its purpose is Identify what the product has been made from and how environmentally friendly the materials are Evaluate the product on design, appearance and use Identify the cost to make the product | Identify who made the product, when it was made and what its purpose is Identify what the product has been made from and how environmentally friendly the materials are Evaluate the product on design, appearance and use Identify the cost to make the product and whether it has any other purposes eg. Leading innovation of the time, trend setting |
| Lesson 2: Design Criteria Understanding their intended users and their own product | Explain what product they will be designing and making Explain who their product will be used by Describe what their product will be used | Use own experiences and existing products to develop ideas Explain what product they will be designing and making Explain who their product will be used | Understand and gather information about what a particular group or people want from a product Describe the purpose of their product and how it will work | Understand and gather information about what a particular group or people want from a product Describe the purpose of their product | Understand and gather information about what a particular group or people want from a product, using questionnaires, surveys etc Describe the purpose | Understand and gather information about what a particular group or people want from a product, using questionnaires, surveys etc Describe the purpose |

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| | for | by | <p>Identify design features that will appeal to intended users</p> <p>Explain how parts of their product works</p> <p>Generate realistic ideas that meet needs of user</p> | <p>Identify design features that will appeal to intended users</p> <p>Explain how parts of their product works</p> <p>Develop their own design criteria and use for planning ideas</p> <p>Generate realistic ideas that meet needs of user and take into account availability of resources</p> | <p>of their product</p> <p>Identify design features that will appeal to intended users</p> <p>Explain how parts of their product will work</p> <p>Develop their own design criteria and use for planning ideas</p> <p>Generate innovative ideas that meet needs of user and take into account availability of resources</p> | <p>of their product</p> <p>Identify design features that will appeal to intended users</p> <p>Explain how parts of their product will work</p> <p>Create a design description for their product</p> <p>Highlight the impact of time, resources and cost within their design ideas</p> <p>Generate innovative ideas that meet needs of user</p> |
| Lesson 3:Planning Communicating ideas and creating prototypes for product | <p>Discuss what their steps for making could be</p> <p>Represent ideas through talking and drawing</p> | <p>Discuss what their steps for making could be</p> <p>Represent ideas through talking, drawing and computing – (where appropriate)</p> <p>Choose materials to use based on suitability of their</p> | <p>Share and discuss ideas with others</p> <p>Order the main stages of making</p> <p>Choose materials to use based on suitability of their properties</p> <p>Represent ideas in diagrams, annotated</p> | <p>Share and discuss ideas with others</p> <p>Order the main stages of making</p> <p>Choose materials to use based on suitability of their properties</p> <p>Represent ideas in diagrams, annotated</p> | <p>Share and discuss ideas with others</p> <p>Record a step by step plan for making</p> <p>Produce lists for the tools, equipment and materials they will be using</p> <p>Choose materials to use based on</p> | <p>Share and discuss ideas with others</p> <p>Record a step by step plan for making</p> <p>Produce lists for the tools, equipment and materials they will be using</p> <p>Choose materials to use based on</p> |

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| | | <p>properties</p> <p>Create templates/pattern pieces and explore materials whilst developing ideas</p> | <p>sketches and computer based programmes (where appropriate)</p> <p>Create pattern pieces and prototype</p> | <p>sketches and computer based programmes (where appropriate)</p> <p>Create pattern pieces and prototypes</p> | <p>suitability of their properties and aesthetic qualities</p> <p>Represent ideas in diagrams, annotated sketches and computer based programmes (where appropriate)</p> <p>Create pattern pieces and prototypes</p> | <p>suitability of their properties and aesthetic qualities</p> <p>Represent ideas in diagrams, annotated sketches and computer based programmes (where appropriate)</p> <p>Create pattern pieces and prototypes</p> |
| <p>Lesson 4-5:</p> <p>Making</p> <p>Selecting the tools and applying the practical skills and techniques</p> | <p>Choose suitable tools for making</p> <p>Follow safety and food hygiene procedures</p> <p>Measure, mark, cut and shape materials and components</p> <p>Join, assemble and combine materials and components</p> | <p>Choose suitable tools for making whilst explaining why they should be used</p> <p>Follow safety and food hygiene procedures</p> <p>Measure, mark, cut and shape materials and components</p> <p>Join, assemble and combine materials and components</p> <p>Use finishing techniques, including skills learnt in Art</p> | <p>Choose suitable tools for making whilst explaining why they should be used</p> <p>Use design criteria whilst making</p> <p>Follow safety and food hygiene procedures</p> <p>Measure, mark, cut and shape materials and components with some accuracy</p> <p>Join, assemble and combine materials and components with some accuracy</p> | <p>Choose suitable tools for making whilst explaining why they should be used</p> <p>Use design criteria whilst making</p> <p>Follow safety and food hygiene procedures</p> <p>Measure, mark, cut and shape materials and components with some accuracy</p> <p>Join, assemble and combine materials and components with some accuracy</p> | <p>Choose suitable tools for making whilst explaining why they should be used</p> <p>Use design criteria whilst making</p> <p>Follow safety and food hygiene procedures</p> <p>Measure, mark, cut and shape materials and components accurately</p> <p>Join, assemble and combine materials and components accurately</p> | <p>Choose suitable tools for making whilst explaining why they should be used</p> <p>Use design criteria whilst making</p> <p>Follow safety and food hygiene procedures</p> <p>Measure, mark, cut and shape materials and components accurately</p> <p>Join, assemble and combine materials and components accurately</p> |

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| | | | Use finishing techniques, including skills learnt in Art with some accuracy | Use finishing techniques, including skills learnt in Art with some accuracy | Demonstrate problem solving skills when encountering a mistake or practical problem Use finishing techniques, including skills learnt in Art accurately | Demonstrate problem solving skills when encountering a mistake or practical problem Use finishing techniques that involve a number of steps, including skills learnt in Art accurately |
| Lesson 6: Evaluation Referring to planning and initial ideas in evaluating their product | Talk about their design ideas and what they have made Make simple judgements of how the product met their design ideas | Talk about their design ideas and what they have made Make simple judgements of how the product met their design ideas Suggest how their product could be improved | Use design criteria to evaluate product – identifying both strengths and areas for development Consider the views of others, including intended user, whilst evaluating product | Use design criteria to evaluate product – identifying both strengths and areas for development Consider the views of others, including intended user, whilst evaluating product | Use design criteria to evaluate product – identifying both strengths and areas for development Consider the views of others, including intended user, whilst evaluating product | Use design criteria to evaluate product – looking at quality of end product and design and whether it is fit for its intended purpose Consider the views of others, including intended user, whilst evaluating product |
| Teaching cooking and nutrition Understanding food and food preparation | Across KS1: Understand that food comes from plants or animals Understand that food has to be farmed, caught, or grown | | Lower KS2: Understand which foods are reared, caught, or grown and that this happens in the UK and across the globe Understand that recipes can be changed by adding or taking away ingredients Understand that the seasons can affect food produce | | Upper KS2: Understand which foods are reared, caught, or grown and that this happens in the UK and across the globe Understand that the seasons can affect food produce Understand that sometimes raw ingredients need to be processed before they can be used in cooking (eg. De-feathering a chicken) | |

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| | | | Understand that recipes can be adapted to change the appearance, taste and aroma of a dish |
| Teaching cooking and nutrition Food preparation, cooking and nutrition | Across KS1: Sort foods into the 5 groups using The Eatwell Plate Identify that people should eat at least 5 portions of fruit and vegetables a day Prepare simple dishes hygienically and safely without a heat source Use cooking techniques such as: cutting, peeling and grating | Lower KS2: Sort foods into the 5 groups using The Eatwell Plate and identify that this makes up a healthy diet Identify that food and drink are needed to provide energy for a healthy and active lifestyle Identify that people should eat at least 5 portions of fruit and vegetables a day Prepare simple dishes hygienically and safely, where needed with a heat source Use cooking techniques such as: chopping, peeling, grating slicing, mixing, spreading, kneading and baking | Upper KS2: Sort foods into the 5 groups using The Eatwell Plate and identify that this makes up a healthy diet Identify that food and drink provide certain nutritional and health benefits which support a healthy lifestyle Identify that people should eat at least 5 portions of fruit and vegetables a day Prepare simple dishes hygienically and safely, where needed with a heat source Use cooking techniques such as: chopping, peeling, grating slicing, mixing, spreading, kneading and baking |