Design Technology Skills Progression Grid St. Helen's Primary School

<table>
<tr><td colspan="2">EYFS ELG 2021
Fine Motor Skills
Use a range of small tools, including scissors, paintbrushes and cutlery.
Creating with Materials
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.</td></tr>
<tr><td>Year 1
Designing: understanding contexts, users and purposes
Work confidently within familiar contexts, such as imaginary, story-based, home, school, gardens and playground.
State what products they are designing and making
Say how their products will work
Say whether their products are for themselves or other users
Designing: generating, developing, modelling and communicating ideas
Generate ideas by drawing on their own experiences.
Model ideas by exploring materials, components and construction kits
Use information and communication technology, where appropriate, to develop and communicate their ideas.
Making: Planning
Select from a range of tools and equipment.
Select from a range of materials and components, suggesting reasons for their choices.
Making: Practical skills and techniques
Follow procedures for safety and hygiene.
Mark out, cut and shape materials and components.
Assemble, join and combine materials and components.
Begin to use finishing techniques, including those from art and design
Evaluating: own ideas and products
Talk about their design ideas and what they are making.
Evaluating: Existing products
Explore what products are, how they work and what people like and dislike about them.</td><td>Year 2
Designing: understanding contexts, users and purposes
Work confidently within a range of contexts, such as imaginary, story-based, home, school, gardens, playground, local community, industry and the wider environment.
Say what they are designing and making, using simple design criteria to help develop their ideas
Describe what their products are for and how they will work
Say how they will make their products suitable for their intended users
Designing: generating, developing, modelling and communicating ideas
Generate ideas using their own experiences and by using knowledge of existing products.
Model ideas by making templates and mock-up, exploring the materials, components and construction kits they may use.
Use information and communication technology, where appropriate, to develop and communicate their ideas.
Making: Planning
Select from a range of tools and equipment, explaining their choices.
Select from a range of materials and components according to their characteristics.
Plan by suggesting what to do next.
Making: Practical skills and techniques
Follow procedures for safety and hygiene.
Measure, mark out, cut and shape materials and components.
Choose an appropriate way to assemble, join and combine materials and components [e.g. not using blue tac for heavy components]
Use finishing techniques, including those from art and design
Evaluating: own ideas and products
Make simple judgements about their products and ideas against design criteria.
Suggest how their products could be improved.
How freestanding structures can be made stronger, stiffer and more stable</td></tr>
</table>

Design Technology Skills Progression Grid St. Helen's Primary School

	Evaluating: Existing products • Explore who products are for, how they are used, where they might be used, what materials they are made from and what people like and dislike about them.
Year 3 **Designing: understanding contexts, users and purposes** • Work within a range of contexts such as enterprise, industry and the wider environment. • Describe the purpose of their products. • Develop their own design criteria and use these to inform their ideas. **Designing: generating, developing, modelling and communicating ideas** • Generate ideas focusing on the needs of the user. • Begin to share ideas through discussion. • Model their ideas using prototypes and pattern pieces. • Develop and communicate their ideas through annotated sketches. • Develop and communicate their ideas using computer-aided design, where appropriate. **Making: Planning** • From a given range, select tools and equipment suitable for task. • From a given range, select materials and components suitable for the task. **Making: Practical skills and techniques** • Follow procedures for safety and hygiene. • Use a wider range of materials and components, including construction materials and kits, textiles, food ingredients, mechanical components and electrical components. • Measure, mark out, cut and shape materials and components with some accuracy. • Assemble, join and combine materials and components with some accuracy. • Apply a range of finishing techniques, including those from art and design, with some accuracy **Evaluating: own ideas and products** • Identify the strengths and areas for development in their ideas and products, using these to improve their work. • Use their design criteria to evaluate their completed products. **Evaluating: Existing products** • Investigate and analyse how well products have been made and how well products work.	**Year 4** **Designing: understanding contexts, users and purposes** • Work within a range of contexts such as enterprise, industry and the wider environment. • Describe the purpose of their products and begin to explain how particular parts work. • Gather information about the needs and wants of particular individuals and groups, using this to develop their own design criteria. **Designing: generating, developing, modelling and communicating ideas** • Generate realistic ideas focusing on the needs of the user. • Make design decisions that take account of the availability of resources. • Share ideas through discussion. • Model their ideas using prototypes and pattern pieces. • Develop and communicate their ideas through annotated sketches and begin to use cross-sectional drawings. • Develop and communicate their ideas using computer-aided design, where appropriate. **Making: Planning** • Select tools and equipment suitable for the task. • Select materials and components suitable for the task. • Order the main stages of making **Making: Practical skills and techniques** • Follow procedures for safety and hygiene. • Use a wider range of materials and components, including construction materials and kits, textiles, food ingredients, mechanical components and electrical components. • Measure, mark out, cut and shape materials and components with some accuracy. • Assemble, join and combine materials and components with some accuracy. • Apply a range of finishing techniques, including those from art and design, with some accuracy. **Evaluating: own ideas and products** • Identify the strengths and areas for development in their ideas and products, considering the views of others. Use these to improve their work.

• Investigate and analyse who designed and made a product and where they did this. • Investigate and analyse whether products can be recycled or reused. • Investigate and analyse how sustainable the materials in products are. **Evaluating: Key events and individuals** • Know about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products.	• Refer to their design criteria as they make to ensure the best possible outcome. Use their design criteria to evaluate their products once completed. **Evaluating: Existing products** • Investigate and analyse how well products have been designed and made, how well methods of construction have been used and how well products achieve their purposes. • Investigate and analyse who designed a made a product as well as where and when they did this. • Investigate and analyse whether products can be recycled or reused. • Investigate and analyse how sustainable the materials in products are **Evaluating: Key events and individuals** • Know about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products.
Year 5 **Designing: understanding contexts, users and purposes** • Work confidently within a range of contexts such as enterprise, industry and the wider environment. • Describe the purpose of their products and explain how particular parts work. • Gather information about the needs, wants and preferences of particular individuals and groups from research; using surveys, interviews questionnaires and web-based resources. Use this to develop their own design criteria. **Designing: generating, developing, modelling and communicating ideas** • Generate ideas, drawing on their research. • Make design decisions that take account of constraints such as time, resources and cost • Share and begin to clarify ideas through discussion. • Model their ideas using prototypes and pattern pieces. • Develop and communicate their ideas through annotated sketches, cross-sectional drawings and begin to use exploded diagrams. • Develop and communicate their ideas using computer-aided design, where appropriate **Making: Planning** • Select tools and equipment suitable for the task, explaining their choices in relation to the skills and techniques they will be using. • Select materials and components suitable for the task, explaining their choices according to their functional properties.	**Year 6** **Designing: understanding contexts, users and purposes** • Work confidently within a range of contexts such as enterprise, industry and the wider environment. • Describe the purpose of their products and explain how particular parts work, indicating those features that will appeal to intended users. • Gather information about the needs, wants, preferences and values of particular individuals and groups from research; using surveys, interviews questionnaires and web-based resources. Use this to develop their own design criteria. • Develop a simple design specification to guide their thinking **Designing: generating, developing, modelling and communicating ideas** • Generate innovative ideas, drawing on their research. • Make design decisions that take account of constraints such as time, resources and cost • Share and clarify ideas through discussion. • Model their ideas using prototypes and pattern pieces. • Develop and communicate their ideas through annotated sketches, cross-sectional drawings and exploded diagrams. • Develop and communicate their ideas using computer-aided design, where appropriate. **Making: Planning** • Select tools and equipment suitable for the task, explaining their choices in relation to the skills and techniques they will be using.

• Formulate step-by-step plans as a guide making • Produce appropriate lists of tools, equipment and materials that they need **Making: Practical skills and techniques** • Follow procedures for safety and hygiene. • Use a wider range of materials and components, including construction materials and kits, textiles, food ingredients, mechanical components and electrical components. • Accurately measure, mark out, cut and shape materials and components. • Accurately assemble, join and combine materials and components. • Accurately apply a range of finishing techniques, including those from art and design. **Evaluating: own ideas and products** • Identify the strengths and areas for development in their ideas and products, considering the views of others including those of intended users. Use these to improve their work. • Evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make. **Evaluating: Existing products** • Investigate and analyse how well products have been designed and made, why certain materials have been chosen, what methods of construction have been used and how well products meet users needs and wants. • Investigate and analyse how much products cost to make and how innovate they are. **Evaluating: Key events and individuals** • Know about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products.	• Select materials and components suitable for the task, explaining their choices according to their functional properties and aesthetic qualities. • Formulate step-by-step plans as a guide making • Produce appropriate lists of tools, equipment and materials that they need **Making: Practical skills and techniques** • Follow procedures for safety and hygiene. • Use a wider range of materials and components, including construction materials and kits, textiles, food ingredients, mechanical components and electrical components. • Accurately measure, mark out, cut and shape materials and components. • Accurately assemble, join and combine materials and components. • Accurately apply a range of finishing techniques, including those from art and design. • Demonstrate resourcefulness when tackling practical problems. • Demonstrate resourcefulness when tackling practical problems. • Use techniques that involve a number of steps **Evaluating: own ideas and products** • Identify the strengths and areas for development in their ideas and products, considering the views of others including those of intended users. Use these to improve their work. • Critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make. • Evaluate their ideas and products against their original design specification **Evaluating: Existing products** • Investigate and analyse how well products have been designed and made, why certain materials have been chosen, what methods of construction have been used and how well products meet users needs and wants. • Investigate and analyse how much products cost to make and how innovate they are, including what impact they have beyond their intended purpose. **Evaluating: Key events and individuals** • Know about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products