

Senacre Wood Primary- Design and Technology Skills Progression

EYFS Areas of Study

Physical development: Moving and handling

- Draws lines and circles using gross motor movements
- Uses simple tools to effect changes to materials
- Handles tools, objects and construction materials safely

ELG: They handle equipment and tools effectively, including pencils for writing.

- **Skills progression:** Differentiated opportunities for gross and fine motor control are carefully planned into Child Initiated. The indoor and outdoor classroom enables the children to independently access a variety of resources that support the growth of design and construction. The EYFS team, along with our school's Art Teacher, review the children's progress and adjust the provision to suit the children's learning journey.

Understanding the World: Technology

Characteristics of Effective Learning: A Unique Child

Having their own ideas

- Having their own ideas
- Thinking of ideas
- Finding ways to solve problems
- Finding new ways to do things

Choosing ways to do things

- Planning, making decisions about how to approach a task, solve a problem and reach a goal
- Changing strategy as needed

National Curriculum Area and Aim- merge the col		Y1	Y2	Y3	Y4	Y5	Y6
Design	DESIGN						
	Develop the creative, technical and practical expertise needed to perform everyday tasks confidently.	<p>I can research other designs similar to my own.</p> <p>I can plan a purposeful and appealing product.</p> <p>I can describe and explain the purpose of my design to others.</p>	<p>I can research designs similar to my own, discussing the advantages and disadvantages of my findings.</p> <p>I can plan a purposeful, functional and appealing product.</p> <p>I can draw and discuss my plan, making adjustments when necessary.</p>	<p>I can complete and discuss a detailed plan using research, such as information about the target audience to inform my own ideas.</p> <p>I can think of innovative ideas different to existing designs.</p> <p>I can create a design criteria that is functional and fit for the purpose of a particular individual or group.</p> <p>I can complete a detailed and annotated sketch, or prototype, which can be described in detail to others.</p>	<p>I can plan and clarify my ideas through discussion and detailed research on the target audience.</p> <p>I can think of an innovative design, which will be developed and reviewed alongside the design criteria.</p> <p>I can create a detailed design criteria that is functional and fit for the purpose of particular individuals or groups.</p> <p>I can complete annotated sketches and prototypes that can be communicated clearly to others.</p>	<p>I can think of innovative ideas using detailed research to help inform my own plan, including surveys, interviews, or questionnaires as well as discussion with peers.</p> <p>I can plan and design an innovative, functional, appealing product fit for purpose for the intended individual or group based on the design specification.</p> <p>I can annotate different design criteria's, including sketches, prototypes, cross sectional diagrams, and where appropriate computer-aided design, that can be communicated clearly to others.</p>	<p>I can gather appropriate information including extensive research, such as surveys, interviews and questionnaires to inform my own original ideas.</p> <p>I can develop a detailed design criteria for an innovative, functional, appealing products that are fit for purpose.</p> <p>I can generate and develop innovative ideas and share these through discussion.</p> <p>I can create annotated design criteria's including draft and final sketches, prototypes, cross sectional and exploded diagrams, as well as computer-aided design (circuits?) to develop and communicate their ideas.</p>

<p style="text-align: center;">Make</p>	<p style="text-align: center;">MAKE To apply and develop the skill to create products that solve real and relevant problems.</p>	<p>I can select and use simple tools to perform practical tasks for example cutting and joining.</p> <p>I can select from and use a wide range of materials, including construction blocks and textiles.</p> <p><i>Food tech would just be within each box with expectations- do as much as you can from the NC and then have a look at the other links you used.</i></p>	<p>I can plan my next step and suggest what to do next.</p> <p>I can select and effectively use tools and equipment, apply different skills and techniques to perform practical tasks (cutting, shaping, joining and finishing) as well as explaining their methods and choices.</p> <p>I can select from and use a wide range of materials and components, including construction materials and textiles according to their characteristics.</p>	<p>I can plan the main stages of making my product.</p> <p>I can select from and use a wider range of tools and equipment accurately, which are suitable for the task, to perform practical tasks, including cutting, shaping, joining and finishing.</p> <p>I can select from and use a wider range of materials and components, including construction materials and textiles according to their functional properties.</p>	<p>I can plan and order the main stages of making.</p> <p>I can select from and use a wide range of tools and equipment accurately to measure, mark up, cut, score, and shape.</p> <p>I can explain my choice of materials, according to their function and aesthetic qualities.</p> <p>I can select from and use a wide range of materials successfully, including construction and electrical components, according to their function and properties.</p>	<p>I can plan and write up the main stages of making (instructions), including a detailed plan stating the equipment and materials needed to complete the task.</p> <p>I can select from and use a range of appropriate tools and equipment accurately to measure, mark up, cut, score and shape combining appropriate materials and resources.</p> <p>I can explain and evaluate my choice of materials, utensils, equipment, according to their function properties and aesthetic qualities.</p>	<p>I can write up and communicate my plan and step-by-step instructions, including a list of equipment, tools, materials and components needed to complete the task.</p> <p>I can competently select from and use appropriate tools to accurately measure, mark, cut and assemble materials, as well as securely connect electrical components.</p> <p>I can consider and apply finishing and decorative techniques that would make the product more aesthetically appealing.</p> <p>I can competently explain and evaluate my choice of materials, utensils, equipment, according to their function properties and aesthetic qualities.</p>

Evaluate	EVALUATE Learning the importance of critical evaluation.	<p>I can explore and evaluate some existing products similar to my own.</p> <p>I can evaluate my ideas and products against design a criteria.</p> <p>I can talk about my design ideas and what I am making.</p> <p>I can discuss and consider the purpose of different products, thinking about what I like and dislike and how the products will be used.</p>	<p>I can explore and evaluate a range of existing products similar to my own.</p> <p>I can evaluate my ideas and products against a design criteria.</p> <p>I can make simple judgements about my own ideas and products against a design criteria.</p> <p>I can suggest how my designs and products can be improved, considering my likes and dislikes as well as how products work, how they are used and by whom.</p>	<p>I can investigate and analyse a range of existing products, considering how well the products have been designed and made, and if they meet the audiences' needs and wants.</p> <p>I can use the design criteria to test my own ideas and products.</p> <p>I can consider the views of others in order to improve my work.</p> <p>I have a basic understanding inventors, designers, engineers and manufacturers.</p>	<p>I can investigate and analyse a range of existing products, considering different aspects of design, such as how well the products have been designed and made, why particular materials have been chosen, when and how products were made and whether they can be recycled or reused.</p> <p>I can use the design criteria to test and evaluate my ideas and products, with the intended user and purpose in mind.</p> <p>I can evaluate the strengths and areas for development in my own ideas and products, as well as considering the views of others including intended users to improve my work.</p> <p>I am aware of different inventors, designers, engineers and manufacturers and have an understanding of the products they have invented and developed.</p>	<p>I can investigate and critically analyse a range of existing products linked to my final product, considering different aspects of design, such as how well the products have been designed and made, why particular materials have been chosen, when and how products were made and whether they are innovative and sustainable.</p> <p>I can use the design criteria to test and evaluate my ideas and products with the intended user in mind, considering the quality of the design, manufacture, and functionality and whether it is fit for purpose.</p> <p>I can critically evaluate the strengths and areas for development in my own ideas and products, as well as considering the views of others including intended users to improve my work.</p> <p>I can discuss different inventors, designers, engineers and manufacturers and have an understanding of the products they have invented and developed.</p>	<p>I can investigate and critically analyse a range of existing products linked to their final product, considering how well the products have been designed and made, why particular materials have been chosen, when and how products were made and whether they are innovative, cost effective and sustainable and the impact of products beyond their intended purpose.</p> <p>I can use the design criteria to continually test and evaluate my ideas and products with the intended user in mind, considering the quality of the design, manufacture, functionality and whether it is fit for purpose.</p> <p>I can critically evaluate the strengths and areas for development in my own ideas and products throughout the design process, whilst constantly considering the views of others including intended users to improve my work.</p> <p>I can discuss and compare different inventors, designers, engineers and manufacturers and have an understanding of the products they have invented and developed.</p>
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Technical Knowledge	<p>TECHNICAL KNOWLEDGE</p> <p>Understanding the importance of 'how' and 'why' technical objects work.</p>	<p>I have a basic understanding about the working characteristics of materials and components.</p> <p>I can build a structure, exploring how it can be made stronger, stiffer and more stable.</p> <p>I can explore and use some mechanisms in my product, for example a lever or a slider.</p>	<p>I have an understanding about the simple working characteristics of materials and components.</p> <p>I can build different structures, exploring and understanding how it can be made stronger, stiffer and more stable.</p> <p>I can evaluate and explain how I made my structure more stable, whilst beginning to use the correct technical vocabulary.</p> <p>I can explore and use mechanisms in my product, including levers, sliders, wheels and axels.</p>	<p>I can apply my understanding of how to strengthen and stiffen more complex structures.</p> <p>I can evaluate and explain how I made my structure more stable, using the correct technical vocabulary.</p> <p>I understand and can use some mechanical systems in my products, for example, gears, pulleys, cams, levers or linkages.</p> <p>I know how different mechanical systems such as levers and linkages create movement.</p> <p>I have a basic understanding of electrical systems which can be applied to my products, for example, incorporating switches or buzzers.</p> <p>I can apply my understanding of computing to program, attempting to monitor and control my product.</p>	<p>I can apply my understanding of how to strengthen, stiffen and reinforce more complex structures, and explain the process using the correct technical vocabulary.</p> <p>I understand and can use a range of mechanical systems in my products, including gears, pulleys, cams, levers and linkages.</p> <p>I know and can explain how different mechanical systems such as levers and linkages create movement.</p> <p>I know how most electrical systems work and can apply them to my products, for example, using switches, bulbs, buzzers or motors.</p> <p>I know how to compute a basic program and can monitor and control my products.</p>	<p>I can apply and explain my understanding of how to strengthen, stiffen and reinforce complex structures, explaining the process in detail using the correct technical vocabulary.</p> <p>I can understand and use the different mechanical systems in my products, such as gears, pulleys, cams, levers and linkages.</p> <p>I know and can explain mechanical systems such as cams or pulleys or gears create movement.</p> <p>I know how a range of electrical systems work and can apply them to my products, including series circuits, incorporating switches, bulbs, buzzers and motors.</p> <p>I can apply my knowledge and understanding of computing to a program, and can monitor and control my products.</p>	<p>I can understand the properties of materials and can apply my knowledge to my products, strengthening and stiffening complex structures, explaining and evaluating the process using technical vocabulary.</p> <p>I can understand and accurately use the common mechanical systems in my products, including gears, pulleys, cams, levers and linkages and begin to understand how more advanced mechanical system are used.</p> <p>I know how the different electrical systems work and can apply them to my products, including series circuits, incorporating switches, bulbs, buzzers and motors, and have a basic understanding on how more advanced electrical systems can be powered.</p> <p>I can apply my in depth knowledge of computing to program, and can monitor and control my products.</p>
Food and Technology	<p>COOKING AND NUTRITION</p> <p>Apply the principles of nutrition and healthy eating. Instil a love of cooking as an expressions creativity and as a crucial life skill.</p>	<p>Begin to understand that all food comes from plants or animals.</p> <p>Begin to develop peeling and chopping skills</p> <p>Use the basic principles of a healthy and varied diet to prepare dishes</p>	<p>Understand where food comes from.</p> <p>Know that food has to be farmed, grown elsewhere (e.g. home) or caught.</p> <p>Understand how to name and sort foods into the five groups in 'The Eat-Well plate.'</p> <p>Begin to use techniques such as cutting, peeling and grating</p>	<p>Understand that some food is processed and evaluate the effect on diet.</p> <p>Understand how to prepare a simple dish to eat independently</p> <p>Develop knife skill techniques safely</p>	<p>Understand that food is grown, reared, caught and traded in the UK, Europe and the wider world.</p> <p>Understand how to prepare and cook predominantly savoury dishes safely and hygienically.</p> <p>Further develop skills including mixing, kneading and baking</p>	<p>Understand that seasons may affect the food available.</p> <p>Understand how food is processed into ingredients that can be eaten or used in cooking.</p> <p>Gain confidence in the skills of peeling, chopping, slicing, grating, mixing, kneading and baking</p>	<p>Understand and apply the principles of a healthy and varied diet</p> <p>Know how to prepare and cook a variety of more complex dishes safely and hygienically.</p> <p>Select the appropriate skill for food preparation from those known.</p>

Websites used:

<https://hillsideprimary.org.uk/wp-content/uploads/2020/02/Hillside-Progression-of-Skills-for-DT.pdf>

<https://primarysite-prod-sorted.s3.amazonaws.com/dalestorth-primary-and-nursery-school/UploadedDocument/4779920d3c6b4db28782a94f9c10a310/progression-framework-ks1-ks2-1.pdf>

<https://www.gov.uk/government/publications/national-curriculum-in-england-design-and-technology-programmes-of-study/national-curriculum-in-england-design-and-technology-programmes-of-study>

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