Progression of knowledge and skills in Design and Technology September 2025

Cottingley Village Primary School

Concept - Research: Take inspiration from designs (Disciplinary Knowledge)									
EYFS - Birth to Three Years	**EYFS – Three & Four Years**	**EYFS - Reception**	**EYFS ELG**	**Year One**	**Year Two**	**Year Three**	**Year Four**	**Year Five**	**Year Six**
To use their imagination as they consider what they can do with different materials.	To explore different materials freely, in order to develop their ideas about how to use them and what to make To develop their own ideas and then decide which materials to use to express them	To return to and build on their previous learning, refining ideas and developing their ability to represent them To create collaboratively sharing ideas, resources and skills To explore, use and refine a variety of artistic effects to express their ideas and feelings To create collaboratively sharing ideas, resources and skills	***Share their creations, explaining the process they have used; - (ELG)***	To discuss existing products and how they are made.	To discuss existing products: what they are and who/what they are for. To identify materials used in an existing product. To discuss likes/dislikes about an existing product.	To research existing products and discuss the overall purpose. To discuss the aesthetic qualities of an existing product. To understand how products work to achieve their purpose.	To research and evaluate existing products. To evaluate different products and take inspiration for their own design criteria.	To conduct research and use different sources to gather information about existing products. To discuss and analyse a range of existing products. To understand how key events in design and technology have helped to shape the world.	To discuss some of the great designers. To suggest improvements upon existing designs and products.

Concept – Design: Developing, planning and communicating ideas (Disciplinary Knowledge)									
EYFS - Birth to Three Years	**EYFS – Three & Four Years**	**EYFS - Reception**	**EYFS ELG**	**Year One**	**Year Two**	**Year Three**	**Year Four**	**Year Five**	**Year Six**
To explore different materials, using all their senses to investigate them	To explore different materials freely, in order to develop their ideas about how to use them and what to make To develop their own ideas and then decide which materials to use to express them	To return to and build on their previous learning, refining ideas and developing their ability to represent them To create collaboratively sharing ideas, resources and skills	***Share their creations, explaining the process they have used; - (ELG)*** ***Make use of props and materials when role playing characters in narratives and stories (ELG)***	To draw on own experiences to generate ideas. To identify the purpose of a product. To design a product against a simple design criteria. To use pictures and words to plan.	To develop ideas through discussion and observation. To take design inspiration from existing products.. To identify the purpose and audience for what they intend to design and make. To identify a simple design criteria. To make simple design drawings with labels. To create a template/mock-up of their design.	To generate ideas by considering the purpose of their design. To describe the purpose and intended audience of their product to support their design. To establish a simple design criteria for a functional product. To make design drawings with clear labelled aspects and an outline of materials/equipment needed. To develop designs by modelling ideas in the form of a prototype.	To generate ideas for a product by considering the purpose and audience. To generate a range of realistic ideas that focus on the needs of the user. To make labelled designs from different viewpoints. To outline the making process alongside the materials, components and appropriate tools needed.	To generate ideas through mind-mapping. To create a design criteria which identifies essential and desirable aspects. To draw multiple designs with key label and identify positives and negatives. To produce a detailed plan of their chosen design. Create a step by step guide of the making process. To experiment with materials and equipment to make a functioning prototype.	To carry market research through interviews, surveys and questionnaires. To identify the needs, wants and preferences of the intended user. To develop their own specification against their own design criteria. To use CAD (Computer Aided Design) to design elements of a product. To develop a design proposal through modelling their ideas in a variety of ways.

Concept – Make: Working with tools, equipment, materials and components (Disciplinary Knowledge)									
EYFS - Birth to Three Years	**EYFS – Three & Four Years**	**EYFS - Reception**	**EYFS ELG**	**Year One**	**Year Two**	**Year Three**	**Year Four**	**Year Five**	**Year Six**
To develop manipulation and control To explore with different materials and tools To manipulate and play with different materials	To join different materials and explore different textures To explore different materials freely, in order to develop their ideas about how to use them and what to make To develop their own ideas and then decide which materials to use to express them To use on Use one-handed tools and equipment, e.g, making snips in paper with scissors	To develop their small motor skills so that they can use a range of tools competently, safely and confidently; glue stick, sellotape, masking tape, scissors To develop their small motor skills so that they can use a range of tools competently, safely and confidently; hole-punch, split-pins, treasury tags	***Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function; - (ELG)*** ***Make use of props and materials when role playing characters in narratives and stories (ELG)***	To identify different tools and know the correct name. To describe the purpose of different tools. To select and use a range of different materials and components for a particular purpose. To join materials using simple techniques. To safely use scissors to cut. To use glue and masking tape to join materials and components. To use simple finishing techniques to improve the appearance of the product.	To describe materials and components according to their characteristics. To select the correct tools and equipment for a project. To begin to measure and mark out. To assemble, join and combine different materials. To use hand tools safely and appropriately. To use finishing techniques to strengthen a product.	To select tools and techniques to use with their product. To begin to measure and mark out materials and components. To work safely and accurately with a range of different tools. To use finishing techniques to improve the appearance of a product.	To explain their choice of materials and components based on their functional properties. To select the most effective components for their product. To mark out, measure and cut a range of different materials with accuracy. To join and combine different materials and components accurately.	To use different tools to expertly adopt differing techniques for a desired effect. To cut and join materials together with accuracy to create a good quality product. To assemble components with working models. To consider appropriate aesthetic techniques and functionality. Begin to be resourceful with practical problems.	To select and use appropriate tools, materials and techniques for their product to create a desired effect. Use of materials and components to help make modifications as they go with precision. To construct products using permanent joining techniques. To use finishing techniques that require more than one step whilst considering aesthetic aspects and functionality.

Concept – Evaluate (Disciplinary Knowledge)									
EYFS - Birth to Three Years	**EYFS – Three & Four Years**	**EYFS - Reception**	**EYFS ELG**	**Year One**	**Year Two**	**Year Three**	**Year Four**	**Year Five**	**Year Six**
To express ideas and feelings through making marks, and sometimes give a meaning to the marks they make	To develop their own ideas and then decide which materials to use to express them	To create collaboratively sharing ideas, resources and skills	***Share their creations, explaining the process they have used; - (ELG)***	To evaluate pre - existing product by discussing the overall purpose verbally. To identify the strengths of their product. To suggest simple improvements for their product. To explain what and how their product is made.	To identify and evaluate the strengths and weaknesses of their product. To identify possible changes they could make to their design/product. To discuss what went well and what could have been done differently.	To evaluate their product against their design criteria. To identify what worked well during the making stage. To identify the strengths and weaknesses of their product. To consider views of others with improvement suggestions linking to the design brief.	To evaluate their work during and after they have made their product. To evaluate their product by carrying out appropriate tests to check its purpose. To evaluate the appearance and usability of their product. To evaluate against the design brief.	To evaluate their product against their own design criteria and specification. To evaluate their product independently and determine is It fit for purpose? Suggest improvements considering materials and methods used.	To identify the strengths and weaknesses of their product by carrying out appropriate tests. To record their evaluations using detailed drawings with labels. To evaluate their product against their own specification and suggest areas of improvements. To evaluate their peers' products. To consider the sustainability of their product and how much it would cost to make.

Concept – Nutrition (Disciplinary Knowledge)									
EYFS - Birth to Three Years	**EYFS – Three & Four Years**	**EYFS - Reception**	**EYFS ELG**	**Year One**	**Year Two**	**Year Three**	**Year Four**	**Year Five**	**Year Six**
To eat finger food and develop likes and dislikes To try a wider range of foods with different tastes and textures	To start to eat independently and learning how to use a knife and fork To make healthy choices about food, drink, activity and toothbrushing	To develop their small motor skills so that they can use a range of tools competently, safely and confidently; knives, forks and spoons To know and talk about the different factors that support their overall health and wellbeing: healthy eating	***Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function; - (ELG)***	To understand basic food hygiene. To understand how to be safe about cooking equipment. To understand the basics of a healthy diet. To understand the components of a healthy snack. To develop practical skills: - Pour - Peel - Measure - Cut - Mix	To follow safe procedures for food safety and hygiene. To understand where different foods come from. To identify the key principles for a healthy diet. To look at different foods from around the world. To develop practical skills: - Slice -Grate	To reinforce knowledge of basic food hygiene. To use all cooking equipment responsibly and safely. To begin to demonstrate hygienic food preparation. To understand the components for a healthy and varied diet. To understand how different foods are sourced. To develop practical skills: - Knead - Bake	To apply their understanding of basic food hygiene. To apply their understanding of how to be safe around cooking equipment. To demonstrate hygienic food preparation. To look at different cooking techniques. To begin to use different cooking techniques. To follow and adapt a recipe.	To outline their understanding of basic food hygiene. To reinforce their understanding of how to be safe around cooking equipment. To look at more complex cooking techniques. To understand how foods are sourced and grown different times of year (based on the season).	To demonstrate a strong understanding of food handling and safety. To select suitable cooking techniques for a desired outcome. To select ingredients suitable for a particular purpose. To weigh and measure accurately. To use finishing techniques with a range of different ingredients. To write their own recipe.

Concept – Technical Knowledge Mechanisms and Structures (Substantive Knowledge)									
EYFS - Birth to Three Years	**EYFS – Three & Four Years**	**EYFS - Reception**	**EYFS ELG**	**Year One**	**Year Two**	**Year Three**	**Year Four**	**Year Five**	**Year Six**
To explore different materials, using all their senses to investigate them	To explore different materials freely, in order to develop their ideas about how to use them and what to make To join different materials and explore different textures	To return to and build on their previous learning, refining ideas and developing their ability to represent them To create collaboratively sharing ideas, resources and skills To create collaboratively sharing ideas, resources and skills	***Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function; - (ELG)*** ***Share their creations, explaining the process they have used; - (ELG)*** ***Make use of props and materials when role playing characters in narratives and stories (ELG)***	To understand the characteristics of different materials. To understand how structures are made. To understand how a structure can be made stronger.	To understand the functional properties of a material. To understand the characteristics of different components. To understand how a structure can be made stronger, stiffer and more stable. To understand the purposes and uses of different mechanisms. To select and use a suitable mechanism for their own design (e.g. wheels, axles).	To apply their understand of measures (mm, cm, m). To understand the aesthetic qualities of a material. To use technical vocabulary to describe their product. To develop a good understanding of how structures work.	To join materials using permanent and temporary fixings. To combine a number of components in a product. Selecting appropriate materials to make a strong structure. To look at the different functions of mechanical systems. To understand the components within a mechanical system. To evaluate the purpose of a particular mechanical system.	To understand the use of different mechanical systems for different existing products. To experiment with different levers and linkages to understanding how they work (e.g. levers, sliders). To add mechanical elements to make movements in a finished product.	Measuring, making and checking the accuracy of the wood and dowel. To use a vice to hold wood in place. To use the correct techniques to saw safely under adult supervision. Assembling components accurately to make a steady frame. Experimenting with a range of cams to create a desired movement.

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Design and Technology – Technical Knowledge Textiles									
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				To mark desired shapes onto fabric. To cut out simple 2D shapes made from fabric. To join material together using simple techniques to create a 3D textiles product: glue, staples, ribbon.		To plan and mark desired shapes and outlines onto fabric. To use fabric scissors to cut out different fabric materials with some accuracy. To attach 2D shapes together using pins. To thread a needle. To join identical material together using a running stitch.		To plan and design a 2D pattern piece. To use fabric scissors to cut out different fabric materials with accuracy. To join a combination of fabric shapes together. To use an invisible stitch. To choose the correct needle for a desired purpose. To add appropriate and aesthetically pleasing finishing techniques.	

Concept – Technical Knowledge Electrical Systems (Substantive Knowledge)									
EYFS - Birth to Three Years	**EYFS – Three & Four Years**	**EYFS – Reception**	**EYFS ELG**	**Year One**	**Year Two**	**Year Three**	**Year Four**	**Year Five**	**Year Six**
							To make links with science and their understanding of a circuit. To apply their knowledge of what components a circuit needs. To design and make a product that incorporates a working electrical circuit.		
Concept – Technical Knowledge Computer Aided Design (Substantive Knowledge)									
									To understand what CAD is. To look at existing products with CAD. To understand the different forms of CAD. To begin to use different CAD resources. To incorporate CAD into their design.