Key Concepts Progressive Curriculum Map

Design and Technology

Includes EYFS – Years 1 to 6

Knowledge, Skills and Understanding breakdown for Design and Technology

EYFS

Developing, planning and communicating ideas	Working with tools, equipment, materials and components to make quality products	Evaluating processes and products
• Can children use what they have learned about media and materials in original ways, thinking about uses and purposes? • Can they represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role play and stories?	• Can children safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function?	• Can they talk about the plans they have made to carry out activities and what they might change if they were to repeat them?

Breadth of study

Cooking and nutrition	Textiles	Mechanisms	Use of materials	Construction
• I can choose healthy options • I can eat my dinner with a knife and fork • I can bake and explore ingredients for a variety of recipes • I can tell you what happens when something goes into the oven • I understand why I need fruit and veg • I can manage my own hygenie		• I can join in different ways	• I can develop my own ideas and then decide which material to use to express them • I can explore the textures, movement, feel and look of different media and materials	• I can combine shapes to make new ones • I can use one handed tools and equipment • I can construct with a purpose in mind using a variety of resources

Knowledge, Skills and Understanding breakdown for Design and Technology

Year 1

Developing, planning and communicating ideas	Working with tools, equipment, materials and components to make quality products	Evaluating processes and products
• Can they think of some ideas of their own? • Can they explain what they want to do? • Can they use pictures and words to plan?	• Can they explain what they are making? • Which tools are they using?	• Can they describe how something works? • Can they talk about their own work and things that other people have done?

Breadth of study

Cooking and nutrition	Textiles	Mechanisms	Use of materials	Construction
• Can they cut food safely? • Can they describe the texture of foods? • Do they wash their hands and make sure that surfaces are clean? • Can they think of interesting ways of decorating food they have made, e.g, cakes?		• Can they make a product which moves? • Can they cut materials using scissors? • Can they describe the materials using different words? • Can they say why they have chosen moving parts?	• Can they make a structure/model using different materials? • Is their work tidy? • Can they make their model stronger if it needs to be?	• Can they talk with others about how they want to construct their product? • Can they select appropriate resources and tools for their building projects? • Can they make simple plans before making objects, e.g. drawings, arranging pieces of construction before building?

Knowledge, Skills and Understanding breakdown for Design and Technology

Year 2

Developing, planning and communicating ideas	Working with tools, equipment, materials and components to make quality products	Evaluating processes and products
• Can they think of ideas and plan what to do next? • Can they choose the best tools and materials? Can they give a reason why these are best? • Can they describe their design by using pictures, diagrams, models and words?	• Can they join things (materials/ components) together in different ways?	• What went well with their work? • If they did it again, what would they want to improve?

Breadth of study

Cooking and nutrition	Textiles	Mechanisms	Use of materials	Construction
• Can they describe the properties of the ingredients they are using? • Can they explain what it means to be hygienic? • Are they hygienic in the kitchen?	• Can they measure textiles? • Can they join textiles together to make something? • Can they cut textiles? • Can they explain why they chose a certain textile?	• Can they join materials together as part of a moving product? • Can they add some kind of design to their product?	• Can they measure materials to use in a model or structure? • Can they join material in different ways? • Can they use joining, folding or rolling to make materials stronger?	• Can they make sensible choices as to which material to use for their constructions? • Can they develop their own ideas from initial starting points? • Can they incorporate some type of movement into models? • Can they consider how to improve their construction?

Knowledge, Skills and Understanding breakdown for Design and Technology

Lower Key Stage 2

Developing, planning and communicating ideas	Working with tools, equipment, materials and components to make quality products	Evaluating processes and products
• Can they show that their design meets a range of requirements? • Can they put together a step-by-step plan which shows the order and also what equipment and tools they need explain it to others? • Can they describe their design using an accurately labelled sketch and words? • How realistic is their plan? • Do they take account of the ideas of others when designing? • Can they suggest some improvements and say what was good and not so good about their original design?	• Can they use equipment and tools accurately? • Are they conscience of the need to produce something that will be liked/used by others? • Can they show a good level of expertise when using a range of tools and equipment?	• Have they thought of how they will check if their design is successful? • Can they begin to explain what they changed and why to improve their original design? • Can they evaluate their product, thinking of both appearance and the way it works?

Breadth of study

Cooking and nutrition	Textiles	Electrical and mechanical components	Construction
• Can they choose the right ingredients for a product? • Can they use equipment safely? • Can they make sure that their product looks attractive?	• Can they join textiles of different types in different ways? • Can they choose textiles both for their appearance and also qualities? • Do they think what the user would want when choosing textiles? • Can they devise a template? • Can they use a range of simple	• Do they select the most appropriate tools and techniques to use for a given task? • Can they use a simple circuit?	• Do they use the most appropriate materials? • Can they work accurately to make cuts and holes? • Can they join materials? • Can they measure carefully so as to make sure they have not made mistakes? • How have they attempted to make

Knowledge, Skills and Understanding breakdown for Design and Technology

Upper Key Stage 2

Developing, planning and communicating ideas	Working with tools, equipment, materials and components to make quality products	Evaluating processes and products
• Can they come up with a range of ideas after they have collected information? • Do they take a user's view into account when designing? • Can they produce a detailed step-by-step plan and suggest some alternative plans and say what the good points and drawbacks are about each? • Can they use market research to inform plans? • Can they work within constraints? • Can they follow and refine their plan if necessary? • Can they justify their plan to someone else?	• Can they explain why their finished product is going to be of good quality? • Can they explain how their product will appeal to the audience? • Can they use a range of tools and equipment expertly? • Can they use tools and materials precisely? • Do they change the way they are working if needed?	• Do they keep checking that their design is the best it can be? • Do they check whether anything could be improved? • Can they evaluate appearance and function and test and their final product? • Is it fit for purpose? • What would improve it?

Breadth of study

Cooking and nutrition	Textiles	Electrical and mechanical components	Construction
• Can they describe what they do to be both hygienic and safe? • How have they presented their product well?	• Do they think what the user would want when choosing textiles? • How have they made their product attractive and strong? • Can they make up a prototype first?	• Can they incorporate a switch into their product? • Can they refine their product after	• Are their measurements accurate enough to ensure that everything is precise? • How have they ensured that their product is strong and fit for purpose? • Can they justify why they selected specific materials? • How have they ensured that their