### Design and Technology - Knowledge





Design						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Use new vocabulary through the day.     Articulate their ideas and thoughts in wellformed sentences.     Connect one idea or action to another using a range of connectives.     Describe events in some detail.	Design purposeful, functional, appealing products for themselves.     Generate, develop, model and communicate their ideas through talking, drawing, templates, mockups and, where appropriate, information and communication technology, and other users based on design criteria.	Design purposeful, functional, appealing products for themselves.  Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology and other users based on design criteria.	Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.     Know about inventors, designers, engineers, chefs or manufacturers who have developed groundbreaking products linked to the skills they are exploring (science, history)	Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups     Know about inventors, designers, engineers, chefs or manufacturers who have developed ground-breaking products linked to the skills they are exploring (science, history)	Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computeraided design.     Know about inventors, designers, engineers, chefs or manufacturers who have developed ground-breaking products linked to the skills they are exploring (science, history)	Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer- aided design. Know about inventors, designers, engineers, chefs or manufacturers who have developed ground-breaking products linked to the skills they are exploring (science, history)

## Design and Technology - Knowledge





Make							
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
•Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form, and function;	Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing].     Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics	Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing].  • Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics	Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately.	Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately.	• Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.	• Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.	

Evaluate								
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6		
•Share their creations, explaining the process they have used;	Taste, explore and evaluate a range of products to determine the intended user's preferences for the product     Evaluate their ideas throughout and finished products against design criteria, including intended user and purpose.	Taste, explore and evaluate a range of products to determine the intended user's preferences for the product     Evaluate their ideas throughout and finished products against design criteria, including intended user and purpose.	Investigate and analyse a range of existing products.     Evaluate their ideas and products against their own design criteria.	Investigate and analyse a range of existing products.     Evaluate their ideas and products against their own design criteria.	Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.	• Understand how key events and individuals in design and technology have helped to shape the world.		

# Design and Technology - Knowledge





Technical Knowledge							
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
•Use a range of small tools, including scissors, paint brushes and cutlery; •Begin to show accuracy and care when drawing. •Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form, and function;	Know how to make freestanding structures stronger, stiffer and more stable.     Explore and use sliders and levers.     Understand that different mechanisms produce different types of movement     Know and use technical vocabulary relevant to the project.	Build structures, exploring how they can be made stronger, stiffer and more stable.  Explore and use wheels, axles and axle holders.  Distinguish between fixed and freely moving axles.  Understand how simple 3-D textile products are made, using a template to create two identical shapes.  Understand how to join fabrics using different techniques e.g. running stitch, glue, over stitch, stapling.  Explore different finishing techniques  Know and use technical vocabulary relevant to the project	Understand and use lever and linkage mechanisms.     Distinguish between fixed and loose pivots.     Develop and use knowledge of how to construct strong, stiff shell structures.     Develop and use knowledge of nets of cubes and cuboids and, where appropriate, more complex 3D shapes.     Know how to strengthen, stiffen and reinforce existing fabrics.     Understand how to securely join two pieces of fabric together.     Understand the need for patterns and seam allowances.     Know and use technical vocabulary relevant to the project.	Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages].     Develop and use knowledge of how to construct strong, stiff shell structures.     Develop and use knowledge of nets of cubes and cuboids and, where appropriate, more complex 3D shapes.     Know and use technical vocabulary relevant to the project.     Know how to strengthen, stiffen and reinforce existing fabrics.     Understand how to securely join two pieces of fabric together.     Understand the need for patterns and seam allowances.     Know and use technical vocabulary relevant to the project.	Understand how to strengthen, stiffen and reinforce 3-D frameworks Produce a 3-D textile product from a combination of accurately made pattern pieces, fabric shapes and different fabrics.      Understand how fabrics can be strengthened, stiffened and reinforced where appropriate.      Understand and use electrical systems in their products linked to science coverage. [series circuits incorporating switches, bulbs, buzzers and motors].      Understand that mechanical and electrical systems have an input, process and an output.      Understand how gears and pulleys can be used to speed up, slow down or change the direction of movement.      Know and use technical vocabulary relevant to the project.	Understand how to strengthen, stiffen and reinforce 3-D frameworks.     Produce a 3-D textile product from a combination of accurately made pattern pieces, fabric shapes and different fabrics.     Understand how fabrics can be strengthened, stiffened and reinforced where appropriate.     Understand and use electrical systems in their products linked to science coverage.[series circuits incorporating switches, bulbs, buzzers and motors].     Apply their understanding of computing to program, monitor and control their products.     Know and use technical vocabulary relevant to the project.	

#### Design and Technology - Knowledge





Food Technology								
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6		
•Manage their own	• Understand where a	<ul> <li>Understand where a</li> </ul>	<ul> <li>Know how to use</li> </ul>	<ul> <li>Know how to use</li> </ul>	<ul> <li>Know how to</li> </ul>	<ul> <li>Know how to use</li> </ul>		
basic hygiene and	range of fruit and	range of fruit and	appropriate equipment	appropriate equipment	use utensils and	utensils and		
personal needs,	vegetables come from	vegetables come from	and utensils to prepare	and utensils to prepare	equipment	equipment		
including	e.g. farmed or grown	e.g. farmed or grown	and combine food.	and combine food	including heat	including heat		
understanding the	at home	at home	<ul> <li>Know about a range of</li> </ul>	• Know about a range of	sources to prepare	sources to prepare		
importance of	<ul> <li>Understand and use</li> </ul>	<ul> <li>Understand and use</li> </ul>	fresh and processed	fresh and processed	and cook food.	and cook food.		
healthy food choices	basic principles of a	basic principles of a	ingredients appropriate	ingredients appropriate	<ul> <li>Understand</li> </ul>	<ul> <li>Understand</li> </ul>		
	healthy and varied diet	healthy and varied diet	for their product, and	for their product, and	about seasonality	about seasonality		
	to prepare dishes,	to prepare dishes,	whether they are grown,	whether they are	in relation to food	in relation to food		
	including how fruit	including how fruit	reared or caught.	grown, reared or	products and the	products and the		
	and vegetables are part	and vegetables are part	<ul> <li>Know and use relevant</li> </ul>	caught.	source of different	source of different		
	of the eat well plate.	of the eat well plate.	technical and sensory	<ul> <li>Know and use relevant</li> </ul>	food products.	food products.		
	<ul> <li>Know and use</li> </ul>	<ul> <li>Know and use</li> </ul>	vocabulary appropriately.	technical and sensory	<ul> <li>Know and use</li> </ul>	<ul> <li>Know and use</li> </ul>		
	technical and sensory	technical and sensory		vocabulary	relevant technical	relevant technical		
	vocabulary relevant to	vocabulary relevant to		appropriately.	and sensory	and sensory		
	the project.	the project.			vocabulary.	vocabulary.		

#### **Points for Action**

- Evaluate and redraft the long term plans for DT
- Crosscheck the knowledge in the document to ensure coverage in the redrafted plans.
- Review the new statutory framework for EYFS and add knowledge accordingly.
- Develop a system for assessment of knowledge.