Goldsmith Primary Academy
Long Term Overview - Design Technology

Goldsmith Primary Academy
A part of the Windsor Academy Trust

		Autumn	Spring	Summer
Year 1		**D.M.E project:** Designing: - To design purposeful and appealing products for themselves based on design criteria. - To generate, develop, model and communicate their ideas through talking, drawing and templates. Make: - To use a range of tools and equipment to perform practical tasks. - To use a wide range of materials and components according to their characteristics. Evaluate: - To explore and evaluate existing products.	**Cooking and nutrition:** -To use the basic principles of a healthy diet to prepare a dish. -To understand where food comes from.	**Technical knowledge:** -To build structures, exploring how they can be made stronger and more stable. -To explore mechanisms.
Y1 Threshold Concepts		<u>Designing:</u> -To design purposeful and appealing products for themselves based on design criteria. -To generate, develop, model and communicate their ideas through talking, drawing and templates. <u>Make:</u> -To use a range of tools and equipment to perform practical tasks. -To use a wide range of materials and components according to their characteristics. <u>Evaluate:</u> -To explore and evaluate existing products.		
Year 2		**D.M.E project:** Designing: - To design purposeful, functional, appealing products for other users based on design criteria. - To generate, develop, model and communicate their ideas through talking, drawing, templates,mock-ups and, where appropriate, information and communication technology. Make: - To select from and use a range of tools and equipment to perform practical tasks.	**Technical knowledge:** -To build structures, exploring how they can be made stronger, stiffer and more stable. -To explore and use mechanisms.	**Cooking and nutrition:** -To use the basic principles of a healthy and varied diet to prepare dishes. -To understand where food comes from.

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	- To select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics. Evaluate: - To explore and evaluate a range of existing products.		
Y2 Threshold Concepts	<u>Designing:</u> To design purposeful, functional, appealing products for other users based on design criteria. To generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology. <u>Make:</u> To select from and use a range of tools and equipment to perform practical tasks. To select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics. <u>Evaluate:</u> To explore and evaluate a range of existing products.		
Year 3	**D.M.E. project:** Designing: - To use research and develop design criteria to inform design of products. - To generate, develop, model and communicate collaboratively ideas through discussion and annotated sketches. Make: - To select from and use tools and equipment to perform practical tasks. - To use a range of materials and components according to their functional properties and aesthetic qualities. Evaluate: - To investigate existing products. - To evaluate their ideas and products against their own design criteria.	**Technical knowledge:** -To apply their understanding of how to strengthen, stiffen and reinforce structures. -To understand and use electrical systems in their products.	**Cooking and nutrition:** -To understand the principles of a healthy and varied diet. -To understand seasonality, and know where and how a variety of ingredients are grown.

	- To understand how key events and individuals in design and technology have helped shape the world.		
Y3 Threshold Concepts	Designing: To use research and develop design criteria to inform design of products. To generate, develop, model and communicate collaboratively ideas through discussion and annotated sketches. Make: To select from and use tools and equipment to perform practical tasks. To use a range of materials and components according to their functional properties and aesthetic qualities. Evaluate: To investigate existing products. To evaluate their ideas and products against their own design criteria. To understand how key events and individuals in design and technology have helped shape the world.		
Year 4	**D.M.E project:** Designing: - To use research and develop design criteria to inform design of functional products aimed at a particular group. - To generate, develop, model and communicate ideas through discussion, pattern pieces and annotated sketches. Make: - To select from and use tools and equipment to perform practical tasks accurately. - To select from and use a range of materials and components according to their functional properties and aesthetic qualities. Evaluate: - To investigate a range of existing products. - To evaluate their ideas and products against their own design criteria. - To understand how key events and individuals in design and technology have helped shape the	**Cooking and nutrition:** -To understand the principles of a healthy and varied diet. -To prepare and cook a variety of predominantly savoury dishes using cooking techniques. -To understand seasonality, and know where and how a variety of ingredients are grown and reared.	**Technical knowledge:** -To apply their understanding of how to strengthen, stiffen and reinforce structures. -To understand and use electrical systems in their products.

	world.		
Y4 Threshold Concepts	Designing: To use research and develop design criteria to inform design of functional products aimed at a particular group. To generate, develop, model and communicate ideas through discussion, pattern pieces and annotated sketches. Make: To select from and use tools and equipment to perform practical tasks accurately. To select from and use a range of materials and components according to their functional properties and aesthetic qualities. Evaluate: To investigate a range of existing products. To evaluate their ideas and products against their own design criteria. To understand how key events and individuals in design and technology have helped shape the world.		
Year 5	**D.M.E. project:** Designing: - To use research and develop design criteria to inform design of functional and appealing products that are fit for purpose aimed at particular groups. - To generate, develop, model and communicate ideas through prototypes, computer-aided design and annotated sketches. Make: - To select from and use a wider range of tools and equipment to perform practical tasks. - To select from and use a wider range of materials and components according to their functional properties and aesthetic qualities. Evaluate: - To investigate and analyse existing products. - To evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. - To understand how key events and individuals in design and technology have helped shape the world.	**Technical knowledge:** -To apply their understanding of how to strengthen, stiffen and reinforce more complex structures. -To understand and use mechanical systems in their products. -To apply their understanding of computing to program, monitor and control their products.	**Cooking and nutrition:** -To understand and apply the principles of a healthy and varied diet. -To prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. -To understand seasonality, and know where and how a variety of ingredients are grown, reared and caught.

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Y5 Threshold Concepts	Designing: To use research and develop design criteria to inform design of functional and appealing products that are fit for purpose aimed at particular groups. To generate, develop, model and communicate ideas through prototypes, computer-aided design and annotated sketches. Make: To select from and use a wider range of tools and equipment to perform practical tasks. To select from and use a wider range of materials and components according to their functional properties and aesthetic qualities. Evaluate: To investigate and analyse existing products. To evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. To understand how key events and individuals in design and technology have helped shape the world.		
Year 6	**Technical knowledge:** -To apply their understanding of how to strengthen, stiffen and reinforce more complex structures. -To understand and use mechanical systems in their products. -To apply their understanding of computing to program, monitor and control their products.	**Cooking and nutrition:** -To understand and apply the principles of a healthy and varied diet. -To understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.	**D.M.E. project:** Designing: - To use research and develop design criteria to inform design of innovative, functional, appealing products that are fit for purpose aimed at particular individuals. - To generate, develop, model and communicate ideas through annotated sketches and cross-sectional and exploded diagrams. Make: - To select from and use a wider range of tools and equipment to perform practical tasks accurately. - To 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: - To investigate and analyse a range of existing products. - To evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.

			- To understand how key events and individuals in design and technology have helped shape the world.
Y6 Threshold Concepts	Designing: To use research and develop design criteria to inform design of innovative, functional, appealing products that are fit for purpose aimed at particular individuals. To generate, develop, model and communicate ideas through annotated sketches and cross-sectional and exploded diagrams. Make: To select from and use a wider range of tools and equipment to perform practical tasks accurately. To 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: To investigate and analyse a range of existing products. To evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. To understand how key events and individuals in design and technology have helped shape the world.		