St. Vincent's **DT** Curriculum Map

Terms	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Year 6</u>
Autumn 1	Make a Toy				Motorised Moon Buggy	
Autumn 2		Pneumatic Model	Levers & Links	Cam & Slider		Lights & Buzzers
Spring 1			Make a Torch			Gears & Pulleys
Spring 2	Bird Cake & Bird Feeder			Mediterranean Meal	Hydraulic Construction	
Summer 1		5-A-Day Fruit	Healthy Meals	Build a Birdbox		
Summer 2					Bread Making	International Cuisine

St. Vincent's <u>DT</u> Curriculum Map

Terms	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Year 6</u>
Autumn 1						
Autumn 2						
Spring 1						
Spring 2						
Summer 1						
Summer 2						

St. Vincent's DESIGN & TECHNOLOGY Progression Map

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Cooking & Nutrition						
Textiles						
Mechanisms						
Use of Materials						
Construction						

Year 1	Theme	Cooking & Nutrition	Textiles	Mechanisms	Tools & Materials	Construction
Autumn 1	MAKE A TOY					
Autumn 2						
Spring 1						
Spring 2	Bird Cake & A Bird Feeder					
Summer 1						
Summer 2						

Year 2	Theme	Cooking & Nutrition	Textiles	Mechanisms	Tools & Materials	Construction
Autumn 1						
Autumn 2	Pneumatic Model					
Spring 1				~		
Spring 2						
Summer 1	5-A-Day Fruit					
Summer 2						

Year 3	Theme	Cooking & Nutrition	Textiles	Mechanisms	Tools & Materials	Construction
Autumn 1						
Autumn 2	Levers & Links					
Spring 1	Make a Torch					
Spring 2						
Summer 1	Healthy Meals					
Summer 2						

Year 4	Theme	Cooking & Nutrition	Textiles	Mechanisms	Tools & Materials	Construction
Autumn 1						
Autumn 2	Cam & Slider					
Spring 1						
Spring 2	Mediterranean Meal					
Summer 1	Build a Birdbox					
Summer 2						

Year 5	Theme	Cooking & Nutrition	Textiles	Mechanisms	Tools & Materials	Construction
Autumn 1	Motorised Moon Buggy					
Autumn 2						
Spring 1						
Spring 2	Hydraulic Construction					
Summer 1						
Summer 2	Bread in a Bag					

Year 6	Theme	Cooking & Nutrition	Textiles	Mechanisms	Tools & Materials	Construction
Autumn 1						
Autumn 2	Lights & Buzzers					
Spring 1	Gears & Pulleys					
Spring 2						
Summer 1						
Summer 2	International Cuisine					

What the national curriculum requires in design and technology at key stage 1



When designing and making, pupils should be taught to:

Design

- Design purposeful, functional, appealing products for themselves and other users based on design criteria
- Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology

Make

- 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

Evaluate

- Explore and evaluate a range of existing products
- Evaluate their ideas and products against design criteria

Technical knowledge

- Build structures, exploring how they can be made stronger, stiffer and more stable
- Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.

Design

Make

Evaluate

Technical knowledge

What the national curriculum requires in design and technology at key stage 2

When designing and making, pupils should be taught to:

Design

- 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
- Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design

Make

- 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

Evaluate

- Investigate and analyse a range of existing products
- 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 shape the world

Technical knowledge

- Apply their understanding of how to strengthen, stiffen and reinforce more complex structures
- Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]
- Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]
- Apply their understanding of computing to program, monitor and control their products.

Design

Make



Evaluate

Technical knowledge

Department for Education

Department for Education

What the national curriculum requires in cooking and nutrition at key stage 1 and key stage 2

Pupils should be taught to:

Key stage 1

- Use the basic principles of a healthy and varied diet to prepare dishes
- Understand where food comes from.

Key stage 2

- Understand and apply the principles of a healthy and varied diet
- Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques
- Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

Key Stage 2

Key Stage 1

	Knowledge, Skills and Understanding breakdown for D&T							
			Year 1					
Developing, planning and ideas	l communicating		with tools, equipment, mate conents to make quality pro		Evaluating processes and products			
 Can they think of some id Can they explain what th Can they use pictures an 	ney want to do?	Which tools are they using? Can they talk at		ribe how something works? about their own work and er people have done?				
	_		Breadth of study					
 Cooking and nutrition 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 or present the food they have made? 			 Mechanisms Can they cut materials using scissors? Can they describe the materials using different words? Can they say why they have chosen certain materials? 	mater • Is their • Can th	ney list the ials they need? work tidy? ney make their I stronger if it needs	 Construction Can they talk with others about how they want to construct to function? 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 o	and Understanding I	breakc	lown for D&T						
	Year 2										
Developing, planning and ideas	l communicating		y with tools, equipment, mater ponents to make quality proc		Evaluating processes and products						
 Can they think of ideas a do next? Can they choose the bes materials? Can they give these are best? Can they describe their c pictures, diagrams, mode 	st tools and a reason why design by using		 Can they join things (materials/ components) together in different ways? Breadth of study 		 What went well with their work? If they did it again, what would they want to improve? 						
 Cooking and nutrition Can they describe the properties of the ingredients they are using? Can they explain what it means to be hygienic? 			 Mechanisms Can they join materials together as part of a moving product? Can they add some kind of design to their product? 	to use in Can the different Can the	ey measure materials n a model or structure? ey join material in 1t ways? ey use joining, folding g to make materials	 Construction 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 D&T

			Year 3			
Developing, planning and ideas	communicating		g with tools, equipment, materi ponents to make quality prod		Evaluating processes and products	
 Can they show that their or range of requirements? Can they put together a swhich shows the order an equipment and tools they Can they describe their de accurately labelled sketch How realistic is their plan? 	tep-by-step plan d also what need? esign using an		hey use equipment and tools ately?		• What did they c design even be	hange which made their Iter?
			Breadth of study			
 Cooking and nutrition 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 describe how their combined ingredients come together? Can they set out to grow plants such as cress and herbs from seed with the intention of using them for their food product? 	 Textiles Can they join te different types ir different ways? Can they choos textiles both for appearance an qualities? 	n e their	 Electrical and mechanical components Do they select the most appropriate tools and techniques to use for a given task? Can they make a product which uses both electrical and mechanical components? Can they use a simple circuit? Can they use a number of components? 	 materials Do the appro Can the accur and h 	ey use the most priate materials? ney work ately to make cuts	 Mouldable materials Do they select the most appropriate materials? Can they use a range of techniques to shape and mould? Do they use finishing techniques?

Knowledge, Skills and Understanding breakdown for D&T						
			Year 4			
Developing, planning and co	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 at least one idea about how to create their product? Do they take account of the ideas of others when designing? Can they produce a plan and explain it to others? Can they suggest some improvements and say what was good and not so good about their original design? Can they suggest some improvements and say what was good and not so good about their original design? Can they suggest some improvements and say what was good and not so good about their original design? Can they suggest some improvements and say what was good and not so good about their original design? Can they suggest some improvements and say what was good and not so good about their original design? Can they suggest some improvements and say what was good and not so good about their original design? Can they suggest some improvements and say what was good and not so good about their original design? Can they suggest some improvements and say what was good and not so good about their original design? Can they suggest some improvements and say what was good and not so good about their original design? Can they suggest some improvements and say what was good and not so good about their original design? Can they suggest some improvements and say what was good and not so good about their original design? 				cessful? o explain how they can jinal design? te their product, thinking of		
 Cooking and nutrition Do they know what to do to be hygienic and safe? Have they thought what they can do to present their product in an interesting way? 	 Textiles Do they think wh user would want choosing textiles Have they thoug about how to ma product strong? Can they devise template? Can they explain join things in a di way? 	when ? ht ake their a n how to	 Breadth of study Electrical and mechanical components How have they altered their product after checking it? Are they confident about trying out new and different ideas? 	 materials Can the careful sure the mistak How he attem 	ney measure ully so as to make ney have not made	 Mouldable materials Do they take time to consider how they could have made their idea better? Do they work at their product even though their original idea might not have worked?

Knowledge, Skills and Understanding breakdown for D&T						
			Year 5			
Developing, planning and co	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? Can they suggest some alternative plans and say what the good points and drawbacks are about each? Breadth of study 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? Can they suggest some alternative plans and say what the good points and drawbacks are about each? Breadth of study 				be? whether anything could uate appearance and		
 Cooking and nutrition Can they describe what they do to be both hygienic and safe? How have they presented their product well? 	 Textiles Do they think who user would want choosing textiles? How have they m their product attr and strong? Can they make u prototype first? Can they use a ro joining technique 	when ? nade active up a ange of	 Electrical and mechanical components Can they incorporate a switch into their product? Can they refine their product after testing it? Can they incorporate hydraulics and pneumatics? 	 Materials Are the accure ensure precise How h that the second seco	eir measurements ate enough to e that everything is e? ave they ensured heir product is and fit for	 Mouldable materials Are they motivated enough to refine and improve their product? Do they persevere through different stages of the making process?

Knowledge, Skills and Understanding breakdown for D&T						
			Year 6			
Developing, planning and co	mmunicating ideas		ing with tools, equipment, material omponents to make quality produc		Evaluating	processes and products
 Can they use a range of information to inform their design? 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? Do they consider culture and society in their designs? Can they are work in their design? Can they use tools and materials precisely? Do they change the way they are working if needed? How well do they test and evaluate product? Is it for purpose? Would different resources have import their product? Would they need more or different information to make it even better? 				e? rove it? resources have improved d more or different		
 Cooking and nutrition Can they explain how their product should be stored with reasons? Can they set out to grow their own products with a view to making a salad, taking account of time required to grow different foods? 	 Textiles Have they though how their product be sold? Have they given considered though what would improproduct even more product even more product	t could ght about ove their	 Breadth of study Electrical and mechanical components Can they use different kinds of circuits in their product? Can they think of ways in which adding a circuit would improve their product? 	 materials Can the selecter materials Can the budge How he that the and action of the to imp 	ey justify why they ed specific als? ey work within a	 Mouldable materials Did they consider the use of the product when selecting materials? Does their product meet all design criteria?

Developing, planning and communicating ideas

Year 1	Year 2	Year 3
 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 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 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? Can they describe their design using an accurately labelled sketch and words? How realistic is their plan?
Year 4	Year 5	Year 6
 Can they come up with at least one idea about how to create their product? Do they take account of the ideas of others when designing? Can they produce a plan and explain it to others? Can they suggest some improvements and say what was good and not so good about their original design? 	 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? Can they suggest some alternative plans and say what the good points and drawbacks are about each? 	 Can they use a range of information to inform their design? 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? Do they consider culture and society in their designs?

Working with tools, equipment, materials and components to make quality products

Year 1	Year 2	Year 3
 Can they explain what they are making? Which tools are they using? 	 Can they join things (materials/ components) together in different ways? 	 Can they use equipment and tools accurately?
Year 4	Year 5	Year 6
 Can they tell if their finished product is going to be good quality? Are they conscience of the need to produce something that will be liked by others? Can they show a good level of expertise when using a range of tools and equipment? 	 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?

Evaluating processes and products

Year 1	Year 2	Year 3
 Can they describe how something works? Can they talk about their own work and things that other people have done? 	 What went well with their work? If they did it again, what would they want to improve? 	• What did they change which made their design even better?
Year 4	Year 5	Year 6
 Have they thought of how they will check if their design is successful? Can they begin to explain how they can improve their original design? Can they evaluate their product, thinking of both appearance and the way it works? 	 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 against the original criteria? 	 How well do they test and evaluate their final product? Is it fit for purpose? What would improve it? Would different resources have improved their product? Would they need more or different information to make it even better?

Cooking and Nutrition

Year 1	Year 2	Year 3
 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 or present the food they have made? 	 Can they describe the properties of the ingredients they are using? Can they explain what it means to be hygienic? 	 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 describe how their combined ingredients come together? Can they set out to grow plants such as cress and herbs from seed with the intention of using them for their food product?
Year 4	Year 5	Year 6
 Do they know what to do to be hygienic and safe? Have they thought what they can do to present their product in an interesting way? 	 Can they describe what they do to be both hygienic and safe? How have they presented their product well? 	 Can they explain how their product should be stored with reasons? Can they set out to grow their own products with a view to making a salad, taking account of time required to grow different foods?

Textiles

Year 1	Year 2	Year 3		
		 Can they join textiles of different types in different ways? Can they choose textiles both for their appearance and also qualities? 		
Year 4	Year 5	Year 6		
 Do they think what the user would want when choosing textiles? Have they thought about how to make their product strong? Can they devise a template? Can they explain how to join things in a different way? 	 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 use a range of joining techniques? 	 Have they thought about how their product could be sold? Have they given considered thought about what would improve their product even more? 		

Electrical and mechanical components

Year 1	Year 2	Year 3
 Can they cut materials using scissors? Can they describe the materials using different words? Can they say why they have chosen certain materials? 	 Can they join materials together as part of a moving product? Can they add some kind of design to their product? 	 Do they select the most appropriate tools and techniques to use for a given task? Can they make a product which uses both electrical and mechanical components? Can they use a simple circuit? Can they use a number of components?
Year 4	Year 5	Year 6
 How have they altered their product after checking it? Are they confident about trying out new and different ideas? 	 Can they incorporate a switch into their product? Can they refine their product after testing it? Can they incorporate hydraulics and pneumatics? 	 Can they use different kinds of circuits in their product? Can they think of ways in which adding a circuit would improve their product?

Use of materials

Year 1	Year 2	Year 3
 Can they list the materials they need? Is their work tidy? Can they make their model stronger if it needs to be? 	 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? 	 Do they use the most appropriate materials? Can they work accurately to make cuts and holes? Can they join materials?
Year 4	Year 5	Year 6
 Can they measure carefully so as to make sure they have not made mistakes? How have they attempted to make their product strong? 	 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? Can they work within a budget? How have they ensured that their work is precise and accurate? Can they hide joints so as to improve the look of their product?

Construction & Mouldable Materials

Year 1	Year 2	Year 3
 Can they talk with others about how they want to construct to function? 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? 	 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? 	 Do they select the most appropriate materials? Can they use a range of techniques to shape and mould? Do they use finishing techniques?
Year 4	Year 5	Year 6
 Do they take time to consider how they could have made their idea better? Do they work at their product even though their original idea might not have worked? 	 Are they motivated enough to refine and improve their product? Do they persevere through different stages of the making process? 	 Did they consider the use of the product when selecting materials? Does their product meet all design criteria?