# D&T

# St Andrew's C of E Primary School

## Curriculum Map for DT



#### National Curriculum 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

#### <u>Make</u>

- 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.

## 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

#### <u>Evaluate</u>

- 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.

## Cooking and nutrition

As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.

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.

Year Group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2				
·	Children use what t	hey have learnt about r	nedia and materials in o	riginal ways, thinking ab	out uses and purposes	. They represent				
	their own ideas, the	oughts and feelings thro	ough design and technol	ogy, art, music, dance, r	ole play and stories.					
EYFS -	Why do you love	Where does the	Do dragons exist?	Are eggs alive?	Why can't I have a	How high can I				
Nursery	me so much?	snow go?			chocolate bar for Christmas?	jump?				
	Seeks to acquire basic skills in turning on and	Uses various construction materials.	Understands that different media can be combined to create	Seeks to acquire basic skills in turning on and operating equipment.	Experiments with blocks, colours and marks.	Seeks to acquire basic skills in turning on and				
	operating equipment.	EAD EUMM 14 Joins construction	new effects. EAD EUMM 22	UW T1	EAD EUMM 4 Understands that	operating equipment. UW T 1				
	UW T 1 Knows how to operate simple equipment. UW T 3 Interacts with ageappropriate computer software. UW T 8 Put the children's pictures onto a rolling presentation for them to watch independently. Show them how to use play, fast-forward, rewind, pause and stop. ELG 15; UW T 1;	pieces together to build and balance. EAD EUMM 16 Offer large boxes, white blankets and other construction materials for larger scale igloo building. ELG 16; EAD EUMM 4; EAD EUMM 14; EAD EUMM 16	Uses simple tools and techniques competently and appropriately. EAD EUMM 25 ELG 16; EAD EUMM 4; EAD EUMM 22; EAD EUMM 25	Knows how to operate simple equipment. UW T 3  Interacts with ageappropriate computer software. UW T 8  ELG 10; L W 1; L W 2; L W 4	different media can be combined to create new effects. EAD EUMM 22	Knows how to operate simple equipment. UW T 3 Shows skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images. UW T 5 ELG 15; UW T 1; UW T 3; UW T 5				
	UW T 3; UW T 8  Children use what t	ı hey have learnt about r	ı media and materials in o	ı riginal ways, thinking ab	ut uses and purposes	. They represent				
	their own ideas, tho	Children use what they have learnt about media and materials in original ways, thinking about uses and purposes. They represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role play and stories.								

EYFS -	Do you want to be	Will you read me a	What happens when	Who lives in a rock	Why do ladybirds	Are we there yet?
Reception	friends? Why do squirrels hide their nuts?	story?	I fall asleep?	pool?	have spots?	
	Explores colour and how colours can be changed. EAD EUMM 11 Explores what happens when they mix colours. EAD EUMM 20 Experiment with colours. EAD EUMM 35 Through their explorations they find out and make decisions about how media and materials can be combined and changed. EAD EUMM 41	Uses various construction materials. EAD EUMM 14 Constructs with a purpose in mind, using a variety of resources. EAD EUMM 24 Use a variety of materials and techniques. EAD EUMM 34 Develop their own ideas through selecting and using materials and working on processes that interest them.	Uses various construction materials. EAD EUMM 14 Understands that different media can be combined to create new effects. EAD EUMM 22 Use a variety of materials and techniques. EAD EUMM 34 Through their explorations they find out and make decisions about how media and materials can be combined and changed. EAD EUMM 41	Beginning to be interested in and describe the texture of things.  EAD EUMM 13  Experiments to create different textures.  EAD EUMM 21  Experiments with textures.  EAD EUMM 37  Develop their own ideas through selecting and using materials and working on processes that interest them.  EAD EUMM 40	Manipulates materials to achieve a planned effect. EAD EUMM 23 Use a variety of materials and techniques. EAD EUMM 34 Through their explorations they find out and make decisions about how media and materials can be combined and changed. EAD EUMM 41	Uses various construction materials. EAD EUMM 14 Constructs with a purpose in mind, using a variety of resources. EAD EUMM 24 Safely use tools. EAD EUMM 33 Through their explorations they find out and make decisions about how media and materials can be combined and changed. EAD EUMM 41
KS1 - Year 1	Superheroes	Dinosaur planet	Paws, Claws and whiskers	Enchanted Woodland	Beachcomber	Memory Box
	DT CN 1 Use the basic principles of a healthy and varied diet to prepare dishes.  DT E 1 Explore and evaluate a range of existing products.	DT M 1 Select from and use a range of tools and equipment to perform practical tasks DT M 2 Select from and use a wide range of materials and components including textiles according to their characteristics. DT M 1	DT D 1 Design purposeful, functional, appealing products for themselves and other users based on design criteria DT D 1 Design purposeful, functional, appealing products for themselves and other users based on design criteria.	bt the Build structures, exploring how they can be made stronger, stiffer and more stable.  bt M 1, 2; bt E 2; bt Tk 1 Build structures, exploring how they can be made stronger, stiffer and more stable.  bt M 1  bt M 2 Select from and use a wide range of materials and	DT M 1 Select from and use a range of tools and equipment to perform practical tasks (e.g. cutting, shaping, joining and finishing). DT M 2	DT CN 1 Use the basic principles of a healthy and varied diet to prepare dishes. DT M 1, DT M 2 Select from and use a wide range of materials and components, including construction materials, textiles

				DT D 2; DT E 2;	DT M 1, 2; DT TK 1	construct textiles of ingredien to their character	ts, according			and ingredients, according to their characteristics. DT M 1
KS1 – Year 2	Muck, Mess & Mix	tures	Bright Ligh City		Towers, Turre		Wriggle an	d Crawl		Land Ahoy
	DT E 1 Explore and everange of existing production of the principles of a healt varied diet to prepare DT M 2 Select from use a wide range of materials and compoincluding construction materials, textiles a ingredients, according their characteristics DT D 2 Generate, demodel and communication their ideas through and communication technology.  DT M 1 Select from use a range of tools equipment to perfor practical tasks.	ucts. d where e basic thy and dishes and nents, on nd ng to s. evelop, ate talking, mock- ation and and	DT TK 2 Expluse mechanism levers, sliders and axles), in products. DT TK 1 Build structures, exhow they can stronger, stiff more stable. DT CN 2 Undawhere food confrom. DT D 1 Design purposeful, further appealing proof themselves are users based of criteria. DT M 2 Select and use a wide materials and components, in construction in textiles and ingredients, and to their characteristics.	ms (e.g. s, wheels their  xploring be made fer and erstand omes  nunctional, ducts for nd other n design t from e range of ncluding materials, ccording	DT M 2 Sele and use a win of materials components, including construction materials, to and ingredie according to characterist DT M 1; DT TK 1 Buil structures, exploring ho can be made stronger, stand more sto DT M 1, 2; DT E 2 Evaluation to the products again design criterials.	de range and extiles onts, their oics. TK 2; d withey offer able. The state and ainst	DT CN 2 Under where food confrom.  DT M 1, 2;  DT M 2 Select and use a wide materials and components, in construction in textiles and ingredients, and to their characteristic DT D 1; DT M	omes  It from e range of ncluding materials, ccording	mechanis sliders, witheir product of the product of	2; DTE 1 Select from and use of tools and at to perform tasks (e.g. cutting, joining and ). DTTK 1; DTE 2 Build structures, y how they can be onger, stiffer and ble. valuate their ideas ucts against design

KS2 - Year 3 Tribal ta	les Flow	Mighty Metals	Tremors	I am a warrior
KS2 - Year 3  DT D 1 Us research a develop de criteria to the design innovative functional appealing that are f purpose, a particular individuals groups. DT M 1, 2, 2  DT M 2 So from and a wider range materials component including construction materials, and ingred according functional properties aesthetic DT M 1 DT E 2 E their idea products their own criteria consider views of to improve	DT D1 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 DT D2 Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design. DT M1 Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately DT M2 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 DT E2 Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. DT TK2 Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]	DT E 1 Investigate and analyse a range of existing products. DT D 1 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. DT M 2 Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic	Tremors  DT M 2 Select from and use a range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.  DT D 2; DT TK 1, 3  DT TK 1 Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.  DT D 1 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.  DT E 2	I am a warrior DT D 1 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. DT CN 2 Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. DT M 1 DT E 3 Understand how key events and individuals in design and technology have helped shape the world. DT E 1

KS2 - Year 4	Gods & Mortals	Potions	Traders & Raiders	Burps, Bottoms & Bile	Blue Abyss	Misty Mountain Sierra
	DT D 2 Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.  DT M 1, 2; DT E 2  DT M 2 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.  DT D 2; DT M 1;  DT E 2  DT M 2 Select from and use a wider range of	DT M 1 Select from and use a wider range of tools and equipment to perform practical tasks accurately. DT M 2 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 DT E 2 Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. DT M 1, 2	DT D 1 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. Hi 3; DT M 1, 2; DT E 1 DT M 2 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. Hi 3; DT D 1; DT M 1 DT M 1 Select from and use a wider range of tools and equipment to perform practical tasks (e.g. cutting, shaping, joining and finishing), accurately. Hi 3; DT M 2; DT D	DT CN 2 Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. DT CN 1 DT CN 1 Understand and apply the principles of a healthy and varied diet DT M 1 Select from and use a wider range of tools and equipment to perform practical tasks (e.g. cutting, shaping, joining and finishing), accurately. DT M 2; DT D 2 DT D 1 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. DT D 2; Sc WS 1, 2; Sc A 1 DT CN 2 Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.	DTE 3 Understand how key events and individuals in design and technology have helped shape the world.  Co 1 Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts DTTK 3  Understand and use electrical systems in their products (e.g. series circuits incorporating switches, bulbs, buzzers and motors).  DTD1; DTM1, 2	DT E 2 Evaluate their ideas and products against design criteria.

	<u> </u>	T	<del>                                     </del>
materials and	DT M 1 Select from	Co 6; Ma M 4; DT D 1;	
components,	and use a wider	DT TK 4; DT E 1	
including	range of tools and		
construction	equipment to		
materials, textiles	perform practical		
and ingredients,	tasks (e.g. cutting,		
according to their	shaping, joining and		
functional	finishing),		
properties and	accurately.		
aesthetic	Hi 4; DT D 2; AD 2		
qualities.			
DT M 1; DT D 2			
DT M 2 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.			
DT M 1			

KS2 - Year 5	Frozen Kingdom	Pharaohs	Stargazers	Revolution	Scream Machine
	DT M 1 Select from and use a wider range of tools and equipment to perform practical tasks (e.g. cutting, shaping, joining and finishing), accurately. DT TK 1; Co 6	DT D1 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. DT D2 Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design. DT M1 Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. DT M2 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. DT E1 Investigate and analyse a range of existing products. DT E2 Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. DT CN1 Understand and apply the principles of a healthy and varied diet DT CN2 Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. DT CN3 Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.	DT M 2 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. DT M 1; AD 2 DT D 1 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. DT D 2; DT M 1, 2; Sc ES 1; Sc WS 1, 2, 3, 4 DT E 2 Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.	DT M 2 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. DT M 1; DT D 1; DT CN 2 DT D 2 Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design. DT M 1, 2	DT D 2 Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design. DT D 1; DT M 1, 2; DT E 1, 2 DT TK 4 Apply their understanding of computing to program, monitor and control their products. DT E 1; DT M 2; DT TK 2, 3 DT TK 2 Understand and use mechanical systems in their products (e.g. gears, pulleys, cams, levers and linkages). DT E 2 Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. DT TK 3, 4 DT CN 2 Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. DT M 1, 2

KS2 - Year 6	Hola Mexico	A Child's War	Off with their head	
	DT E 2 Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.  DT E 1; DT M 1, 2  DT CN 2 Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.  DT M 1, 2  DT CN 2 Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.  Hi 9; DT M 1, 2  DT CN 1 Understand and apply the principles of a healthy and varied diet.  DT E 1 Investigate and analyse a range of existing products.  DT M 1 Select from and use a wider range of tools and equipment to perform practical tasks (e.g. cutting, shaping, joining and finishing), accurately.  DT M 2	DT CN 2 Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. DT M 1, 2; DT CN 1, 3 DT M 2 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. DT M 1; DT E 1		