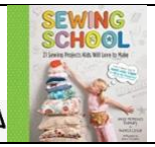
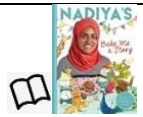
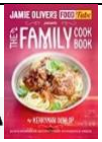
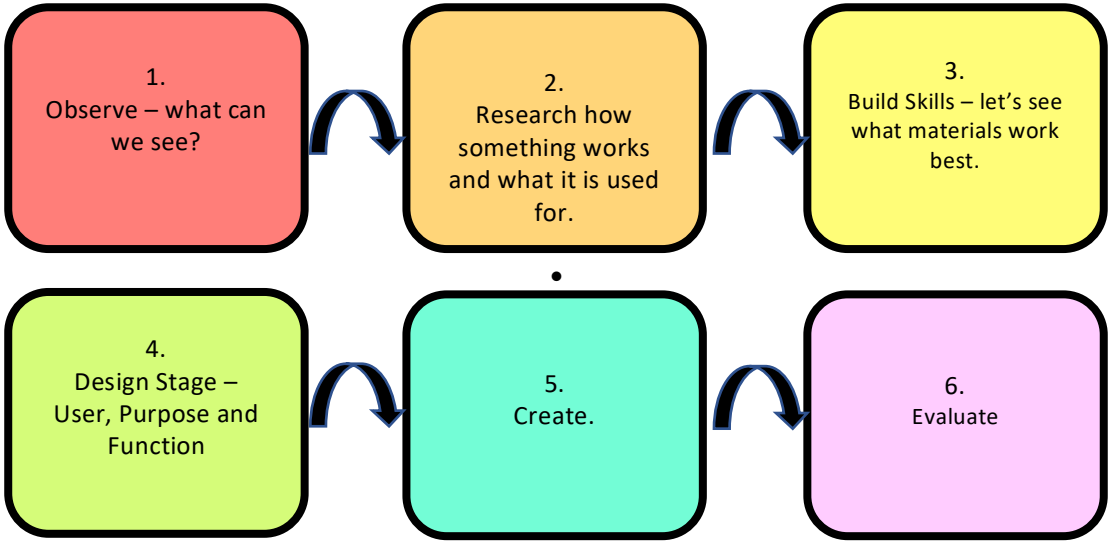
	Year 1			Year 2		
	Autumn	**Spring**	**Summer**	**Autumn**	**Spring**	**Summer**
	What's so good about the great outdoors?	**Would you want to be an explorer in space?**	**Coast or Market Town: which is best?**	**How do we know about dinasaurs?**	**Who is James Cook and why is he important in history?**	**How does your garden grow? A comparison between the UK and India**
Concept	Food 	Mechanisms 	Structures 	Textiles 	Mechanisms 	Food 
Design Brief	Product: User: Purpose:	Product: User: Purpose:	Product: A vertical pier User: Tourist Board Purpose: To attract tourists	Product: User: Purpose:	Product: Puppet show with a slider User: My friends Purpose: To entertain	Product: User: Purpose:
Key Text						
Materials	A range of healthy food	Wheels Axels Cardboard Boxes Card Straws	Cardboard Pipe cleaners Paper Tubes Bottles String	Fabric, Thread, Needles, Stencils	Card Lolly Sticks Paper	A range of food Spices Grains
End point	*A healthy snack* 	*Moon buggy* 	*A vertical pier* 	*A Christmas jumper card* 	*Puppet Show using slider* 	*Indian dish* 
Key References in DT	*Joe Wicks*	Henry Ford NASA Neil Armstrong	Antony Gaudi (Architect)	The Great British Sewing Bee	Clintons cards (interactive cards), Lego (toy maker) Punch and Judy	Sanjeev Kapoor (Indian chef)
Science Link				**Year 2 – Animals Including Humans**		**Year 1 - Animals including Humans**
Key Vocabulary	*Ideas, Product, Ingredients, Healthy, Unhealthy, Slicing, Diet*	*Research, Evaluate, Design, Assemble, Replica, Design Criteria*	*Strong, Design Criteria, Join, Free Standing, Improve*	*material, tools, stitch, running stitch, fabric, binca*	*Slider, Slot, Mechanism, Guide*	*Dish, Weigh, Ingredients, Equipment structure, Recipe*

	Year 3			Year 4		
	Autumn	**Spring**	**Summer**	**Autumn**	**Spring**	**Summer**
	Stone Age to Iron Age: What was life like and how do we know?	**What does our local history tell us?**	**What did Ancient Egyptians achieve?**	**What was the impact of the Roman Empire on Britain?**	**Why did Anglo Saxons invade Britain?**	**How does the water cycle affect rivers?**
Concept	Food 	Structures 	Mechanisms 	Mechanisms 	Textiles 	Mechanisms 
Design Brief	Product: User: Purpose:	Product: User: Purpose:	Product: User: Purpose:	Product: User: Purpose:	Product: User: Purpose:	Product: User: Purpose:
						
Materials	A range of fruits	Cardboard Card Paper Paint	Lolly sticks, Wood, Mechano, Nails, Paper tubes, Yoghurt pots	Boxes, Card, Balloons, Syringes , Tubing	Fabric , Thread, Needles, Buttons	Lolly sticks, Wood, Mechano, Nails, Paper tubes, Yoghurt pots
End point	*Stewed Fruit crumble* 	*Modern house* 	*Sandpit scale prototype* 	*Mythical creature with opening mouth* 	*Purse/wallet* 	*A Bridge* 
Key References in DT	Mary Berry Nadia Hussain	George Clarke (Architect)	Belleville Park -Paris, France (famous playground), Jungle Gym -Nashville, Tennessee (famous playground), Nishi-Rokugo Park -Tokyo, Japan (famous playground)	Tyre pump Exercise equipment	*Coco Chanel* *Vivienne Westwood* *Gucci*	*Isambard Kingdom Brunel*
Science Link	**Year 1 – Animals Including Humans** **Year 2 – Animals Including Humans**	**Year 1 – Everyday materials**	**Year 3 - Forces**	**Year 2 - Living things and their habitats**		
Key Vocabulary	*Stewed, Harvesting, Boil, Simmer, Temperature, Preference, Bitter*	*Stable, Centre of Gravity, Join, Free Standing, Base*	*Series circuit, Prototype, Components, Monitoring System, Input Devices, Output Devices*	*Pneumatics, Reinforce, Structure, Pressure, Input, Output, Seal*	*Design Criteria, Purpose, Function, Prototype, Evaluate, Adapt, Tools*	*beam bridge, arch bridge, truss bridge, rigid, stability, joints, hardwood, softwood, reinforce, evaluate*

	Year 5			Year 6		
	Autumn	**Spring**	**Summer**	**Autumn**	**Spring**	**Summer**
	What is the legacy of the Greeks on British history?	**Mountains, volcanoes and earthquakes – awesome or fearsome?**	**What was it like to live during the Victorian Era in Britain?**	**Raiders or Settlers: how should we remember the Vikings?**	**Climate zones, biomes and vegetation belts: a study on physical geography across the globe**	**Why do we study the Maya in history?**
Concept	Structures 	Electrical Systems 	Food 	Mechanisms 	Electrical Systems 	Food 
Design Brief	Product: User: Purpose:	Product: User: Purpose:	Product: User: Purpose:	Product: User: Purpose:	Product: User: Purpose:	Product: User: Purpose:
Key Text						
Materials	Cardboard, Card, Wire, Bottles, Mechano, Light bulbs, Wires, Batteries, Crocodile clips, Switch	Buzzers, Motors, Batteries, Light bulbs, Wires, Crocodile Clips	A range of food, A range of cooking/baking equipment	Range of Wood, Fabric, Saw, hammer, nails, vice etc, Glue gun, Wheels, Axels Variety of joining materials, Pulley resources, (Mechano/K'NEX), String	We Do Lego set Mechano set	A range of food, A range of food, preparation/cooking resources
End point	*Famous Landmark* 	*Alarm* 	*Traditional British Afternoon Tea* 	*Boat with functioning sail* 	*Wind Turbine* 	*Mexican dip* 
Key References in DT	*Zaha Hadid* Eifel Tower Leaning Tower of Pizza Big Ben/London Eye Coliseum	*Thomas Edison* Burglar alarms, Earthquake monitors etc., Motion sensors, Baby monitors, Ring doorbell	Great British Bake off Paul Hollywood Prue Leith David Atherton (previous bake off winner – local)	Life boat (RNLI) Sailing boat Viking long ship Speed boat Rowing boat Ferry	*Ada Lovelace* *Redcar Wind Farm* *David Attenborough*	Jamie Oliver Enrique Olvera (Mexican chef)
Science Link	Using electricity circuits to ensure their landmark lights up.	**Year 4 – Electricity Retrival**				
Key Vocabulary	*Annotated drawing, Purpose, Design Specification, Design brief, Circuit, Mechanical system, Switch*	*Design, Annotate, Evaluate, Stitch, Accurate, Measure*	*Test, Refine, Culture, Society, Justify, Criteria, Market research, Evaluate, Critique*	*Woodwork, Sturdy, Stiff, Annotated drawing, Functionality, Gravity, Drawbacks, Mechanical system, Components*	*Renewable energy, Program, Wind turbine, Process, Computer control input, Specification*	*Harvest, Maize, Cacao, Seasonality, Imported food, Hygienic, Crop, Compliment*

How we teach DT

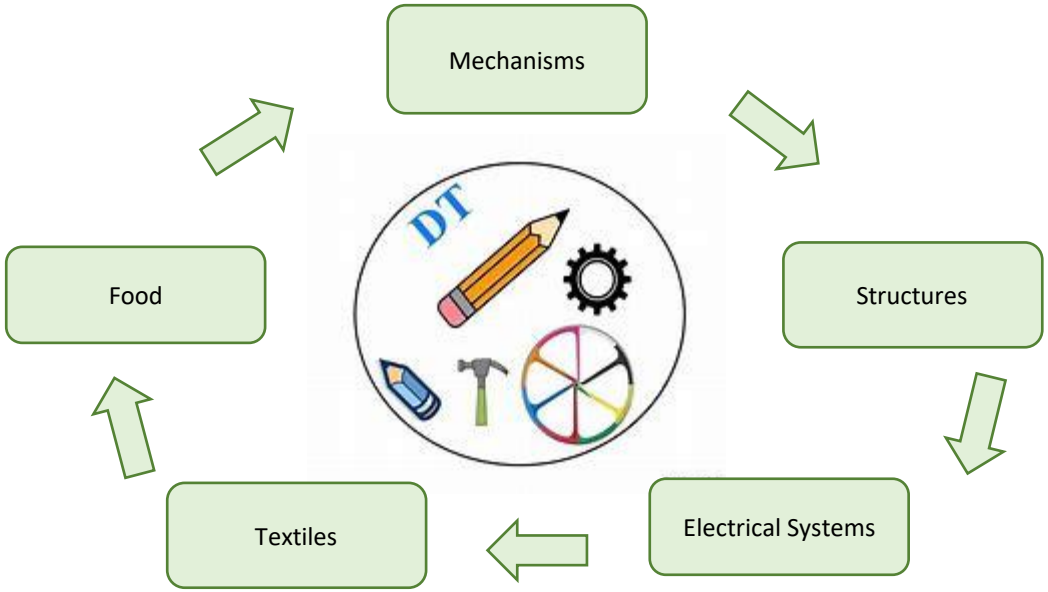
A typical teaching sequence follows the sequence outlined below, although this is inter-changeable:



At the beginning of each unit and throughout, children revisit prior learning and link this to new concepts being taught. Additionally, at the end of a learning sequence, children reflect on their new learning and skills and there is opportunity for further teaching when knowledge or skills have not been retained.

Step 1 – Observe	**S**tep 2 – Research	**S**tep 3 - Build Skills
Pupils will be 'hooked into' the project by receiving a Design Brief. Eg; a letter from the tourism board to improve the design of a landmark. They will then observe examples of the item they are going to be designing.	Pupils will research how the items were made, how they work, what they are used for etc. They may link this to a famous person.	Children will be given the opportunity to experiment with a range of materials, testing out ideas.
Step 4 - Design	**S**tep 5 - Create	**S**ep 6 – Evaluate
Pupils will use their learnt knowledge and skills to design their product. Who is this for? (User) What is the purpose of it? How does it function? (Functionality)	Pupils will create their products – mini plenaries with opportunities for reflection and refinement will be built in. Pupils know that their first idea is not always their best.	Evaluate their product. Is it fit for purpose? Does it meet the design brief?

Key Design Technology Concepts



Our DT Concepts

Our DT Concepts are based on the aims of the National Curriculum and are progressive through school.

Mechanisms

Pupils will explore how mechanisms work, and use mechanical systems such as levers, wheels, cams, gears and pulleys in products that children design themselves.

Structures

Pupils will learn how to make purposeful products, which are string and sturdy. Pupils will design, develop, make, strengthen and reinforce structures.

Textiles

Pupils will learn how to shape and join textiles to make attractive products. Pupils will explore how to choose and use materials according to function and aesthetic products.

Food

Learning how to prepare a range of healthy, nutritious meals is a vital life skill. Pupils will learn how to make a range of cookery products.

Electrical Systems

Pupils will have opportunities to explore electrical systems, the materials they are made from and how they work before creating their own product using an electrical system.