Our Lady and St Edward's - Intent, Implementation and Impact in Design and Technology

Intent

It is our intent at Our Lady and St Edward's to prepare our pupils for a rapidly changing world. We believe effective Design and Technology education cultivates creativity and imagination through problem solving as both individuals and as members of a team. Children are motivated through the design, make, evaluate process to produce a final outcome; a quality product fit for purpose by a service user. Therefore, we believe that Design and Technology should be taught as an individual, discrete subject though we aim to make links where possible between projects and other curriculum areas such as Mathematics, Science, Computing and Art. The children are provided with sufficient opportunities to reflect upon and evaluate past and present design technology, becoming critical of its benefits, limitations, uses and overall effectiveness. In summary, Design and Technology at OLSE is about encouraging creative, critical and innovative learners.

Implementation

At Our Lady and St Edward's, we deliver Design and Technology lessons in 3 half-termly blocks and make cross curricular links where possible. The curriculum has been organised in a way which supports continuity and progression of skills. Children are able to draw upon knowledge and skills from the previous time they studied that focus area of learning. Food Technology is taught in every year group with textiles, mechanisms and structures being taught at least once over a two-year period. Planning is underpinned by our school Knowledge Organisers; these identify age-specific objectives covered in each unit. To further support our plans, we have collated all objectives for each year group into 'Skill Progression' documents, which provides further clarity with planning and allows gaps in learning to be identified and addressed as required. All D&T units follow a 'design, make, evaluate, model. This allows children to fully experience the subject and develop their own identity.

Design: Children will use research to develop design criteria which will inform their own innovative and functional designs. These should be fit for purpose and user. They will generate designs and consequently evaluate and modify their design in light of discussion.

Make: Children will select from a wide range of tools and equipment; choosing resources which they feel are most applicable and relevant to support the creation of the intended final product.

Evaluate: Children investigate and analyse their own and existing products against a set criterion.

Alongside, the 'design, make, evaluate' model, children are supported at all times to develop their technical knowledge. Work is recorded in individual Design and Technology floor books, which move through the school with each class. This allows us to fully incorporate progression into the topic, with the continual encouragement for children to build on what they have already learnt.

We have identified themes throughout our DT curriculum which allow for key knowledge to be revisited and built upon as children move through the school. These themes are:

- Cooking and Nutrition (Seasonal Soup – Y1, Healthy Food Plate – Y2, Ice Cream Sundae – Y3, Healthy Recipes – Y4, Natural Nourishment: Bread & Honey) – Y5, Food to Fuel my Body – Y6)
- Mechanisms (Wheels, Wings & Rockets – Y1, Lifting the Load – Y3, Work Made Easy – Y5)
- Structures (Animal Shelters – Y1, Brilliant Bridges – Y2, Designed for Disaster – Y4, Shelters for Survival – Y6)
- Textiles (Heart*felt* Habitats – Y2, Light it Up! – Y4, Beauty from Above – Y5, Making Memories – Y6)

Impact

The impact of good Design and Technology teaching ensures that children develop creative, technical and practical expertise needed to successfully and confidently participate in our ever increasing technological world. Our progressive curriculum, allows for new techniques to be combined with previously learned ones to enhance the creation of final products. High quality teaching provides motivating and stimulating opportunities which contributes to developing children's critical and evaluative thinking skills whilst simultaneously nurturing their creativity. Children are therefore supported to become resourceful, innovative and enterprising citizens.

Our Lady and St Edward's – Design and Technology Curriculum Overview

	Autumn	Spring	Summer
Year 1	Seasonal Soup *Cooking and nutrition*	Wheels, Wings and Rockets! *Mechanics: moving vehicles*	Animal Shelters *Structures*
Year 2	Healthy Food Plate *Cooking and nutrition*	Brilliant Bridges *Structures*	Puppet Makers *Textiles*
Year 3	Lifting the Load *Mechanics: levers and linkages*	Textiles – linked to the Lake District (e.g. compass holder/purse)	Ice Cream Sundae *Cooking and nutrition*
Year 4	Light it Up! *Electricity-based: Textiles - sewing*	Designed for Disaster *Building structures*	Cooking with Preston's Seasonal Harvest *Cooking and nutrition*
Year 5	Locked, Loaded and Alarmed! *Mechanics: cam systems*	Threads of the Rainforest *Textiles - embroidery*	#CookforSyria *Cooking and nutrition*
Year 6	Mechanisms unit? Or change with Spring?	Food to Fuel my Body *Cooking and nutrition*	Air-raid Shelters *Building structures*

Our Lady and St Edward's – National Curriculum Expectations for Design & Technology

KS1

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment].

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, 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.

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.

KS2

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home, school, leisure, culture, enterprise, industry and the wider environment].

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 range of tools and equipment to perform practical tasks [for example, cutting, shaping, shaping, joining and finishing], accurately
- Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic

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 knowledge of computing to program, monitor and control their products.

Year 1

Key Knowledge

Seasonal Soup *Cooking and nutrition*	Wheels, Wings and Rockets! *Moving vehicles*	Animal Shelters *Structures*
The food we eat comes from different sources. For example, fruit and vegetables come from plants and meat comes from animals.	Wheels help vehicles move. They make it easier for cars, carts and rockets with wheels to roll along the ground.	A shelter is a place that keeps an animal safe, dry and warm or cool depending on where it lives.
		A structure is something that has been built and can stand on its own.
There are 5 main food groups; fruit and vegetables, carbohydrates, proteins, dairy, fats and oils	An axle is a stick or rod that goes through the middle of the wheels to help them turn.	Different animals need different kinds of shelters, depending on whether they live in a hot or cold place.
We need to eat a variety of different types of food to have a healthy diet.	Wheels and axles work together as a simple mechanism to help things move.	A strong structure needs a good base to help it stand up (wider bottoms help stop it falling over).
Some food can be eaten raw (without cooking) and some food needs to be cooked before we eat it.	Lots of vehicles, like toy cars or buggies, use wheels and axles so they can roll smoothly.	We can make a structure stronger by using stiff materials or folding, bending or joining pieces carefully.
		Joining materials carefully helps keep a structure together.
When we prepare food, we should wash our hands and keep surfaces clean.	Sometimes the wheels spins on the axle, and sometimes the wheel and axle spin together.	Properties can help us decide what is the best material for a certain object.

Technical Knowledge and Skills		Design, Make & Evaluate	Seasonal Soup	Wheels, Wings & Rockets	Animal Shelters
Start to use technical vocabulary	Design	Use pictures and words to convey what they want to design/make		✓	✓
Cut out shapes which have been created by drawing round a template		Explore ideas by rearranging materials		✓	✓
Join materials in a variety of ways		Select pictures to help develop ideas	✓	✓	✓
Decorate using a variety of techniques		Use mock-ups e.g. recycled material trial models to try out their ideas.		✓	✓
Know some ways of making structures stronger					
Explore how to stiffen some materials					
Explore how to make a simple structure more stable					
Attach wheels to a chassis using an axle	Make	Select materials from a limited range	✓	✓	✓
Cooking and Nutrition		Explain what they are making	✓	✓	✓
Group familiar food products e.g. fruit and vegetables		Name the tools they are using	✓	✓	✓
Cut and chop a range of ingredients	Evaluate	Explore existing products and investigate how they have been made (including teacher-made examples)	✓	✓	
Work safely and hygienically		Talk about their design as they develop and identify good and bad points	✓	✓	✓
Know about the need for a variety of foods in a diet.		Say what they like and do not like about items they have made and attempt to say why	✓	✓	✓

Year 2

Key Knowledge

Healthy Food Plate *Cooking and nutrition*	Brilliant Bridges *Structures*	Puppet Makers *Textiles*
Foods from different food groups have different health benefits; • Fruit and vegetables – contain vitamins and minerals • Carbohydrates – give us energy • Proteins – build our muscles • Dairy – contains calcium for our bones • Fats and oils – add fat storage for energy	A bridge is a structure that helps people or vehicles cross over something, like water or a road (e.g. Sydney Harbour Bridge crosses Sydney Harbour in Australia).	A puppet is a character you can move and use to tell a story.
		Puppets were used in seaside shows in the past, like Punch and Judy, to entertain families at the beach.
	Frame structures are made from parts that are joined together, like the skeleton of a building or bridge.	A template is a shape or pattern you can draw around to help make sure all your pieces are the same size.
	A wide base or reinforced shapes can make a structure stronger and stop it from falling over.	Sewing materials together makes a stronger join than gluing or pinning.
The Eatwell Guide shows how much of what we eat overall should come from each food group to achieve a healthy, balanced diet. We should eat at least 5 portions of fruit and veg a day.	Triangular shapes (triangulation) can help make bridges strong and stable.	A running stitch is a simple type of sewing where the needle goes in and out of the fabric in a straight line.
There are different ways of preparing a variety of ingredients including cutting, grating and peeling.	Bridges are built using materials that are strong and sometimes flexible, like metal, wood, or stone.	It is important to tie a knot at the end of your sewing to stop it coming undone.
It is important to work hygienically when preparing food. We can do this by washing our hands, tying back long hair/wearing a hair covering, cleaning surfaces and equipment before and after use.	Joining methods like glue, tape, or paper fasteners can be used to connect parts in a model, but real bridges use bolts, rivets, or welding.	You can decorate your puppet using embellishments like buttons, felt pieces, or fabric shapes to add character and detail.

Technical Knowledge and Skills

Continue to develop use of technical vocabulary

Cut out shapes which have been created by drawing round a template

Join materials in a variety of ways

Decorate using a variety of techniques

Know some ways of making structures stronger

Know how to stiffen some materials

Know how to make a simple structure more stable

Learn how to thread a needle

Join materials using simple stitches

Learn how to sew a button onto a piece of felt or fabric

Cooking and Nutrition

Cut, peel, grate and chop a range of ingredients

Work safely and hygienically

Know about the Eatwell Plate

Understand where food comes from

Design, Make & Evaluate

		Healthy Food Plate	Brilliant Bridges	Puppet Makers
Design	Propose more than one idea for their product	✓	✓	✓
	Use ICT to communicate ideas	✓		
	Use drawings to record ideas as they are developed	✓	✓	✓
	Add notes to drawings to help explanations	✓	✓	✓
Make	Discuss their work as it progresses		✓	✓
	Select and name the tools needed to work the materials	✓	✓	✓
	Explain which materials they are using and why	✓	✓	✓
Evaluate	Decide how existing products do/do not achieve their purpose	✓		✓
	Discuss how closely their finished product meets their own design criteria	✓	✓	✓

Year 3

Key Knowledge

Lifting the Load
Mechanics: Levers and linkages

The simplest type of mechanism is called a lever. A lever is a stiff bar which moves around a pivot. The pivot can be loose or fixed.

A linkage is a mechanism made by connecting together levers around a pivot to produce the type of movement required.

A shadduf is a hand-operated machine used to transport water from a lower level to a higher one. It consists of a long wooden pole balanced on a crossbeam. The pole has a bucket attached by a rope to one end and a heavy weight acting as a counterweight on the other end.

A lashing is a type of knot used to secure and fasten two or more items together. This type of knot can be used to connect poles to create a rigid structure.

Ice Cream Sundae
Cooking and nutrition

Foods and drinks that are high in fat, salt or sugar and low in nutritional value are known as 'discretionary foods'. These aren't required for a healthy balanced diet. This includes chocolate and sweets, cakes biscuits and pastries or sugary drinks. These types of foods can be enjoyed occasionally in small portions as part of a healthy diet, however, most people eat too much of these too often.

One way to cut down on discretionary food, is to substitute them for foods from the 5 food groups.

Ice cream is a discretionary food. Healthier alternatives include frozen bananas, grapes, organic fruit purees, or homemade frozen yogurt.

It is important to work hygienically when cooking to avoid the spread of bacteria and cross contamination. This includes making sure foods are stored at the correct temperature.

Technical Knowledge and Skills

Use an increasingly appropriate technical vocabulary for tools, materials and their properties

Prototype a product

Investigate how to strengthen frames

Measure and mark square section, strip and dowel accurately to 1cm

Use linkages to make movement larger or more varied

Cooking and Nutrition

Follow instructions/recipes

Join and combine a range of ingredients

Begin to understand the food groups on the Eatwell Plate

Design, Make & Evaluate

		Lifting the Load	Building Bridges	Ice Cream Sundae
Design	Develop more than one design or adaptation of an initial design	✓		
	Plan a sequence of actions to make a product			✓
	Think ahead about the order of their work and decide upon tools and materials	✓	✓	✓
	Propose realistic suggestions as to how they can achieve their design ideas.	✓	✓	✓
Make	Select from a range of tools for cutting, shaping, joining and finishing	✓	✓	
	Use tools with accuracy	✓	✓	✓
	Select from materials according to their functional properties	✓	✓	✓
	Use appropriate finishing techniques			✓
Evaluate	Investigate similar products to the one to be made to give starting points for a design	✓	✓	✓
	Research needs of a user	✓		✓
	Decide which design idea to develop	✓		
	Consider and explain how the finished product could be improved	✓	✓	✓
	Discuss how well the finished product meets the user's design criteria	✓	✓	✓
	Investigate key events and individuals in design and technology	✓	✓	

Year 4

Key Knowledge

Light It Up! *Electricity-based: Textiles*	Designed for Disaster *Building Structures*	Cooking with Preston's Seasonal Harvest *Cooking and nutrition*
	Triangulation is a way of making structures strong and stable. By connecting parts with triangles, engineers can make sure it stays sturdy.	Preston has a long history of markets, farming, and food production, providing local and seasonal ingredients that have shaped the city's cooking traditions.
Know how to create a simple circuit which allows a lightbulb to function (covered through science).		Our food has to be grown, reared or caught. The food is then processed in different ways. • Growing food – food is grown in an environment where light, food (soil) and water are available to them. • Rearing food – different breeds of animals are reared for their meat. Dairy products and eggs also come from reared animals. • Catching food – most of the fish we eat is caught from seas or rivers. Game can also be caught in the wild or farmed.
An electrical circuit is a loop through which an electric current can flow. It consists of a power source, wires and components such as a bulb or switch.	In order to join wooden dowel together, place the end of one piece of wooden dowel against the end of another. This can then be glued together to create a butt joint. The joint needs strengthening.	
Seam allowance is the area between the fabric edge and the stitching line on the pieces of fabric that are being sewn together.		Preparing processes are the different ways we get food ready to be eaten. They include slicing, mixing, weighing/ measuring, grating, serving and adding/substituting.
		Cooking processes are different ways that we heat food before it is eaten. They include; baking, boiling, frying, grilling, griddling, steaming, boiling and poaching.
There are different types of stitches which can create different aesthetics and are useful for different purposes.	It is important to measure and mark out your dowel before cutting to ensure accuracy.	In order to avoid cross-contamination when preparing food, we should use different chopping boards for foods from different food groups. Raw/unwashed food should be kept separate from ready to eat food.

Technical Knowledge and Skills

Continue to use an increasingly appropriate technical vocabulary for tools, materials and their properties

Understand seam allowance (when two pieces of material are being sewn together)

Sew on buttons and make loops

Strengthen frames with diagonal struts

Measure and mark square section, strip and dowel accurately to 1cm

Incorporate a circuit into a model

Use electrical systems such as switches, bulbs and buzzers

Develop skills in stitching – learn more than one stitch e.g. cross stitch and back stitch

Use a simple pattern as a starting point for design

Cooking and Nutrition

Make healthy eating choices – use the Eatwell Plate

Understand seasonality

Know where and how ingredients are reared and caught

Prepare and cook using different cooking techniques

Design, Make & Evaluate

		Light It Up!	Designed for Disaster	Healthy Recipes
Design	Record a plan by drawing using annotated sketches	✓	✓	✓
	Use prototypes to develop and share ideas	✓	✓	
	Consider aesthetic qualities of materials chosen	✓		
	Use CAD where appropriate		✓	
Make	Prepare pattern pieces as templates for their design	✓		
	Select from different techniques for different parts of the process	✓	✓	✓
Evaluate	Draw/sketch existing products in order to analyse and understand how products are made	✓	✓	✓
	Identify the strengths and weaknesses of their design ideas in relation to purpose/user	✓		✓
	Consider and explain how the finished product could be improved	✓	✓	✓
	Investigate key events and individuals in design and technology	✓	✓	✓

Year 5

Key Knowledge

Locked, Loaded and Alarmed!
Mechanics: cam systems

There are 4 types of mechanical motion:
- Linear motion is movement in a straight line and in one direction.
- Rotary motion is movement following a circular path, around a fixed point.
- Oscillating motion occurs when an object swings left and then right (or vise-versa), from a fixed point.
- Reciprocating motion is a repetitive movement left to right or up and down.

A cam mechanism is made up of three components: a cam, a slider, a follower.

A cam converts rotary motion (turning) into reciprocating motion (up-and-down or back-and-forth).

Different shaped cams will cause the follower to move up and down in different ways.

We can use a cam system to trigger an alarm, such as moving a lever, tapping a bell, or making a visual alert.

Designing an alarm system involves planning the mechanism, testing it, and refining it for reliability.

Threads of the Rainforest
Textiles: Embroidery

Tools must be chosen in light of considering the materials properties. e. g. It is important to know that the nature of fabric may require sharper scissors than would be used to cut paper.

It is important to create consistently sized stitches, as this creates a more attractive product.

It is important to leave space on the fabric for the seam. Some products are turned inside out after sewing so the stitching is hidden.

Embroidery is a decorative technique that involves stitching patterns onto fabric using a needle and thread. In design technology, embroidery plays a significant role in various applications, including fashion design, textile design and product customisation.

#CookforSyria
Cooking and nutrition

Syrian cooking often uses fresh herbs, spices, grains, yoghurt, vegetables, and olive oil.

Bread is a staple food which is available all year round. Simple flatbreads are a staple in Syria and are often eaten with dips such as hummus or yogurt-based sauces.

The process of making bread involves several steps, such as mixing, kneading, shaping and baking.

Learning about and sharing food from other cultures helps us understand and show respect for the lives and traditions of others.

To stay safe and avoid cross-contamination, we use clean equipment, wash our hands, and keep raw and cooked foods separate.

It is important to check that food is fully cooked before serving it to avoid the spread of harmful bacteria. When reheating food, ensure it is piping hot and only ever reheat it once.

Technical Knowledge and Skills

Use the correct vocabulary appropriate to the project

Join materials using appropriate methods

Cut strip wood, dowel, square section wood accurately to 1mm

Build frameworks to support mechanisms

Stiffen and reinforce complex structures

Use mechanical systems such as cams, pulleys and gears

Create a simple pattern for design

Learn and revise stitches – running stitch, cross stitch, back stitch and create textiles using a combination of stitches

Consolidate sewing skills and show precision in techniques

Cooking and Nutrition

Join and combine a widening range of ingredients

Select and prepare foods for a particular purpose

Know where and how ingredients are grown and processed

Design, Make & Evaluate

		Locked, Loaded & Alarmed	Threads of the Rainforest	Cook for Syria
Design	Record ideas using annotated diagrams	✓	✓	
	Use models, kits and drawings to help formulate design ideas	✓	✓	
	Sketch and model alternative ideas	✓	✓	✓
	Decide which design idea to develop	✓	✓	✓
Make	Develop one idea in depth	✓	✓	✓
	Select from and use a wide range of tools	✓	✓	✓
	Cut accurately and safely to a marked line	✓	✓	
	Select from and use a wide range of materials	✓	✓	✓
Evaluate	Research and evaluate existing products	✓	✓	✓
	Consider user and purpose	✓	✓	✓
	Consider and explain how the finished product could be improved related to design criteria	✓	✓	✓
	Investigate key events and individuals in design and technology	✓		✓

Year 6

Key Knowledge

	Food to Fuel my Body *Cooking and nutrition*	Air-raid Shelter *Building Structures*
	There are different types of cooking processes, which can be classified into three categories; • Moist heat cooking techniques such as boiling or steaming • Dry heat cooking techniques such as baking or grilling • Combination cooking techniques such as braising or stewing.	It is important to cut materials with precision and refine the finish with appropriate tools e.g. sanding wood after cutting or a more precise scissor cut after roughly cutting a shape.
	With modern technology, it is possible to grow and rear food out of season. However, growing and rearing foods out of season consumes a lot of energy, because the process takes place in artificial conditions, and needs a lot of resources, for example heat, light, water and nutrients.	A prototype is a test, or original model of a product or a technology from which improvements upgrades or fundamental changes can be made.
	Eating sustainably is about finding the right balance between your food needs and your food choices. It helps to reduce our carbon footprint. Seasons are different in different places over the year. In the northern hemisphere, spring takes place between March and May. In the southern hemisphere, spring is September to November. Therefore, foods are in season in different places at different times of the year. For example, cucumbers can be naturally grown in the northern hemisphere between March-June, and in the southern hemisphere between October-December.	In complex structures, triangulation is one to strength the structure. Another method is through the use of beams and columns. For instance, a roof rests on columns and beams in order to hold a lot of weight. Beams are arranged horizontally and columns are arranged vertically.
	Harmful bacteria are killed by cooking food at the right temperature for the correct length of time. Some meats can be served rare, but meat such as chicken, duck and pork need to be cooked through until the core temperature reaches 75°C.	Wooden dowel can be joined together using a butt or lap joint. A butt joint, joins two pieces of wood by one piece being placed against another. A lap joint is made when two pieces of are joined together by overlapping.

Technical Knowledge and Skills

Use the correct vocabulary appropriate to the project

Join materials using appropriate methods

Create 3D textile products using pattern pieces

Understand pattern layout with textiles

Cut strip wood, dowel, square section wood accurately to 1mm

Stiffen and reinforce complex structures

Create a simple pattern for design

Learn and revise stitches – running stitch, cross stitch, back stitch and create textiles using a combination of stitches

Consolidate sewing skills and show precision in techniques

Cooking and Nutrition

Understand and apply the principles of a healthy and varied diet

Choose ingredients to support healthy eating choices when designing their food products

Prepare and cook a variety of mostly savoury dishes using a range of cooking techniques

Design, Make & Evaluate

			Food to Fuel my Body	Air-raid Shelter
Design	Plan the sequence of work		✓	✓
	Devise step by step plans which can be read/followed by someone else		✓	
	Use exploded diagrams and cross-sectional diagrams to communicate ideas			✓
Make	Make prototypes			✓
	Use researched information to inform decisions		✓	✓
	Produce detailed lists of ingredients, components, materials and tools		✓	✓
	Refine their product – review and rework/improve			✓
Evaluate	Identify the strengths and weaknesses of their design ideas		✓	✓
	Report using correct technical vocabulary		✓	✓
	Discuss how well the finished product meets the design criteria having tested on/discussed outcomes with the user		✓	✓
	Understand how key people have influenced design in a variety of contexts		✓	
	Investigate key events and individuals in design and technology			✓

Use electrical systems such as motors and switches

Program, monitor and control using ICT

Create 3D textile products using pattern pieces
Understand pattern layout with textiles