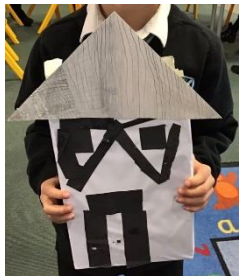
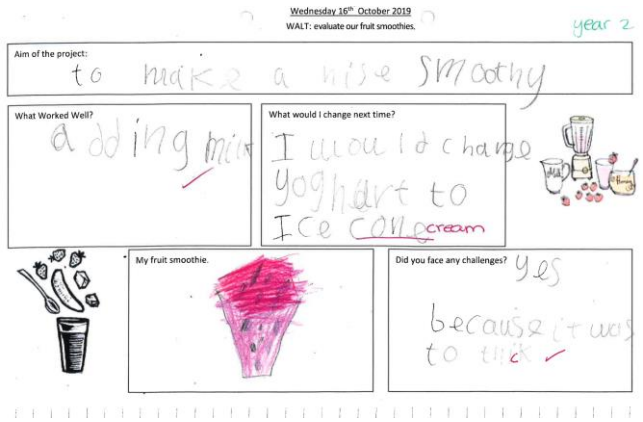
Design Technology at Teignmouth Community School

We aim for pupils to be inquisitive problem solvers who can adapt and apply their prior knowledge in an ever-changing world. Children will follow a process of design, make and evaluate to produce products that meet a given criteria. Children will create unique products by applying and combining learning from across the curriculum. They will construct products to achieve a sense of satisfaction. Children will adapt and improve their work and this will aid the children to become more resilient within themselves and be reflective of the wider world.





EYFS

Pupils will have the confidence to take risks when tackling new challenges and be curious and creative to solve simple, manufactured/encountered problems practically. They will know and identify similarities and differences in a range of materials. They will know that different technology and tools are used to make different products and can select these appropriately for a given task. Children will begin to use simple equipment safely and effectively to effect changes to materials.

KS1

Pupils will have the confidence to take greater risks when tackling new challenges and be curious and creative to solve manufactured/encountered problems practically to help the local community. Children will follow a process of 'design, make and evaluate' to create purposeful products. They will be introduced to subject-specific vocabulary to articulate their proposed design and be shown the technology and techniques to carry this out. Children will use their knowledge and judgement to choose appropriate methods and materials and use these safely to meet a given criteria. Pupils will be consistently reflective to enable them to adapt and improve their work to ensure it is of good quality.

KS2

Pupils will become confident risk-takers when tackling new challenges and be curious and creative to solve problems practically to satisfy evolving human needs, which will shape our world. Children will take personal responsibility for the process of designing, making and evaluating purposeful products using their cross-curricular knowledge. They will build on prior learning and be familiar with subject-specific vocabulary to articulate their proposed design and use appropriate technology to research the problem and techniques to carry this out. Children will use their knowledge and judgement to choose appropriate methods and materials from a wider range of options and use these safely to meet their self-initiated criteria. Pupils will be consistently reflective to enable them to adapt and improve their work to ensure it is of good quality and is functional for the purpose.

What Design Technology is taught at Teignmouth?

This is an overview of what the year groups will cover.

Our green behaviours are woven through the topics for each year group and can be seen on the curriculum maps.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS	Themed Construction and small world play-farm based	Christmas cards and decorations	Moving Parts	Card making Ways of fixing and joining	Constructing a fairy tale setting Constructing a model of a home	
Year 1/2	Create healthy treats to serve at a woodland creature tea party.	Design and make a decoration for a Christmas tree	Create an imaginary pet and make an enclosure for it.	Create own dinosaurs with moving limbs. Create a prehistoric landscape	Creating and baking bread rolls Make houses to recreate Pudding Lane	Design and make a boat that floats
Year 3	Design & make a wind and waterproof roundhouse for iron age people or design and make a cart to move heavy items for stone age people.	Design and make our own sweet treats by following and creating recipes.	Make a working model of a Roman catapult. *	.		Design and make a model submarine.
Year 3/4	Design & make a wind and waterproof roundhouse for iron age people or design and make a cart to move heavy items for stone age people.	Design and make our own sweet treats by following and creating recipes.	Design a pair of wings for Icarus.	Explore, design and make a working musical instrument.	Design and make a piece of Anglo-Saxon jewellery.	Design and make a model submarine.
Year 4			Design a pair of wings for Icarus.	Explore, design and make a working musical instrument.	Design and make a piece of Anglo-Saxon jewellery.	Investigate levers. Design and make a model of a new piece of playground equipment.
Year 5/6	Design and make a satellite, rover or shuttle for a specific mission. Decide what sort of craft to make, thinking carefully about its design and what materials to use to withstand a hostile environment.	Design and make sampler for a Victorian home, deciding which room it is to be used to decorate.			Design and make recipes using ingredients that the Mayans would have had for a class party.	

DT Green Behaviour Curriculum Map

This is how our green behaviours look in our curriculum

	Curiosity	Responsibility	Respect	Resilience	Independence	Honesty
EYFS	They explore the use a variety of materials, tools and techniques	They safely use a variety of materials, tools and techniques				They represent their own ideas, thoughts and feelings through design and technology
KS1	design purposeful, functional, appealing products		explore and evaluate a range of existing products	build structures, exploring how they can be made stronger, stiffer and more stable	select from and use a range of tools and equipment to perform practical tasks	evaluate their ideas and products against design criteria
KS2	use research and develop design criteria to inform the design of innovative, functional, appealing products		investigate and analyse a range of existing products understand how key events and individuals in design and technology have helped shape the world	apply their understanding of how to strengthen, stiffen and reinforce more complex structures	select from and use a wider range of tools and equipment to perform practical tasks	evaluate their ideas and products against their own design criteria

Design Technology Vocabulary

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Make Cut Stick Tools Glue	Design Designer Material Strong Safety Change Peeling Chopping Slicing Mixing Stitch	Product Criteria Technology Feature Purpose Test Hygiene Diagram Structure Base Strengthen Attach Hacksaw Pistol Grip Waterproof Flexibility Texture Deseeding Dicing Grating Skinning Horizontal Vertical	Durable Properties Invention Method Evaluate Alterations Shell Frame Structure Rigid Diagonal Struts Testing Shaft Pulley Cams Slides Levers Linkages Gears Axle Spindle	Appliance Manipulated Jinks	Target Audience Culture Precision Pattern Piece	Cross-section Exploded Diagram Prototype Computer-aided design Iterative Process

Design Technology Knowledge Progression

Big Idea	N	R	1	2	3	4	5	6
Comparison	Compare and contrast Two products can be compared by observing and commenting by sharing ideas, thoughts and preferences		Compare and contrast Two products can be compared by looking at a set of criteria and scoring both products against each one.	Compare and contrast Products can be compared by looking at particular characterises of each and deciding which is better suited to the purpose.	Compare and contrast Work from different designers can be compared by assessing specific criteria such as their visual impact, fitness for purpose and target market.	Compare and contrast A comparison table can be used to compare products by listing specific criteria on which each product can be judged or scored.	Compare and contrast A focus group is a small group of people whole reactions and opinions about a product are taken and studied. Evaluations can be made by asking product users a selection of questions to obtain data on how the product has met its design criteria.	Compare and Contrast Products and interventions can be compared using a range of criteria, such as the impact on society, ease of use, appearance and value for money.
Humankind	Everyday products Everyday products are objects that are used routinely at home and school, such as a toothbrush, cup or pencil. All products are designed for a specific purpose.			Everyday products Everyday products are objects that are used routinely at home and school, such as a toothbrush, cup or pencil. All products are designed for a specific purpose.	Everyday products Particular products have been designed for specific tasks, such as nail clippers, the spinning top and the cool box.	Everyday products Design features are the aspects of a product's design that the designer would like to emphasise, such as the use of a particular material or feature that makes the product easier to use or more durable.	Everyday products Culture is the language, inventions, ideas and art of a group of people. A society is all the people in a community or group. Culture affects the design of some products. For example, knives and forks are used in the western world, whereas chopsticks are used mainly in China and Japan. The design of products needs to take into account the culture of the target audience. For example, colours might mean very different things in different cultures.	Everyday products Analyse how an invention or product has significantly changed or improved people's lives. People's lives have been improved in countless ways due to new inventions and designs. For example, the Morrison shelter, designed by John Baker in 1941, was an indoor air-raid shelter used in over half a million homes during the Second World War. It saved the lives of many people caught in bombing raids.

Materials	Staying safe Tools such as scissors, knives, forks and pencils are used safely and they understand how to transport and store equipment safely such as carrying the blades of the scissors in the palm of their hand and not running. Tools are used with increasing control and saftety.		Staying safe Hygiene rules include washing hands before handling food.	Staying safe Hygiene rules include washing hands before handling food, cleaning surfaces, tying long hair back, storing food appropriately and wiping up spills.	Staying safe Electrical appliances must only be used under the supervision of an adult. Safety rules must also be followed when using electricity: fingers and other objects must not be put into electrical outlets, anything with a cord or plug should never be used around water and a plug should never be pulled out by its cord.	Staying safe Chemicals are used in the home every day. They include cleaning products, such as bleach and disinfectant, but also paints, glues, oils, pesticides and medicines. Most chemical products carry a hazard symbol showing in what way the chemical could be harmful. Chemicals should only be used under adult supervision. Appropriate safety precautions, such as wearing goggles and gloves, working in a well ventilated room, wiping up spills and tying back long hair, should be taken.	Staying safe Safety features are often incorporated into products that might cause harm. Some examples include the child safety caps on medicine bottles, seatbelts in cars, covers for electrical sockets and finger guards on doors.	Staying safe The safety of the user has to be taken into account when designing a new product. Methods to help keep users safe include providing clear instructions for use, clear indication of the age range for which it is designed, safety features (such as child-resistant packaging), warning symbols and electrical safety checks.
	Materials for Purpose A range of media and materials such as boxes, tubes and cartons. Can capture experience s and responses.	Materials for Purpose Materials are selected with a purpose in mind. Such as a toilet roll to make a chimney or cotton wool for clouds. Materials can be manipulated to achieve a planned effect. Different media can also be combined to create new effects e.g. adding glitter	Materials for Purpose Different materials are suitable for different purposes, depending on their specific properties. For example, glass is transparent, so it is suitable to be used for windows.	Materials for Purpose Properties of components and materials determine how they can and cannot be used. For example, plastic is shiny and strong but it can be difficult to paint.	Materials for Purpose Materials for a specific task must be selected on the basis of their properties. These include physical properties as well as availability and cost	Materials for Purpose Different materials and components have a range of properties, making them suitable for different tasks. It is important to select the correct material or component for the specific purpose, depending on the design criteria. Recipe ingredients have different tastes and appearances. They look and taste better and are cheaper when in season	Materials for Purpose Materials should be cut and combined with precision. For example, pieces of fabric could be cut with sharp scissors and sewn together using a variety of stitching techniques.	Materials for Purpose It is important to understand the characteristics of different materials to select the most appropriate for a purpose. This might include flexibility, waterproofing, texture, colour, cost and availability.

	in glue or water in sand.						
Significance	Significant people Develop their own ideas through looking at others work that interests them.	Significant people Describe the importance of how a product fulfils its goals and performs a useful purpose.	Significant people Describe why a product is important. The importance of a product may be that it fulfils its goals and performs a useful purpose.	Significant people Describe how key events in design and technology have shaped the world. Key inventions in design and technology have changed the way people live.	Significant people Significant designers and inventors include Leonardo da Vinci (1452–1519), who designed a helicopter and tank; Thomas Edison (1847–1931), who invented the phonograph and electric lightbulb and Tim Berners-Lee (1955–), who invented the World Wide Web.	Significant people Many new designs and inventions influenced society.	Significant people The significance of a designer or inventor can be measured in various ways. Their work may benefit society in health, transport, communication, education, the built environment or technology.
Creativity	Generation of ideas Designs are created with a purpose in mind such as creating a car to play with or a laser gun to become a superhero.	Generation of ideas Design criteria are the explicit goals that a project must achieve.	Generation of ideas Ideas can be communicated in a variety of ways, including written work, drawings and diagrams, modelling, speaking and using information and communication technology.	Generation of ideas Design criteria are the exact goals a project must achieve to be successful. These criteria might include the product's use, appearance, cost and target user.	Generation of ideas Annotated sketches and exploded diagrams show specific parts of a design, highlight sections or show functions. They communicate ideas in a visual, detailed way.	Generation of ideas A pattern piece is a drawing or shape used to guide how to make something. There are many different computer aided design packages for designing products.	Generation of ideas Design criteria should cover the intended use of the product, age range targeted and final appearance. Ideas can be communicated in a range of ways, including through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.

	Structures Different materials can be used for different purposes, depending on their properties. For example, cardboard is a stronger building material than paper. Plastic is light and can float. Clay is heavy and will sink.	Structures Structures can be made stronger, stiffer and more stable by using cardboard rather than paper and triangular shapes rather than squares. A broader base will also make a structure more stable.	Structures Shell structures are hollow, 3-D structures with a thin outer covering, such as a box. Frame structures are made from thin, rigid components, such as a tent frame. The rigid frame gives the structure shape and support. Diagonal struts can strengthen the structure.	Structures A prototype is a mock-up of a design that will look like the finished product but may not be full size or made of the same materials. Shell and frame structures can be strengthened by gluing several layers of card together, using triangular shapes rather than squares, adding diagonal support struts and using 'Jinks' corners (small, thin pieces of card cut into a right-angled triangle and glued over each joint to straighten and strengthen them).	Structures Various methods can be used to support a framework. These include cross braces, guy ropes, and diagonal struts. Frameworks can be built using lolly sticks, skewers and bamboo canes.	Structures Strength can be added to a framework by using multiple layers. For example, corrugated cardboard can be placed with corrugations running alternately vertically and horizontally. Triangular shapes can be used instead of square shapes because they are more rigid. Frameworks can be further strengthened by adding an outer cover.
Investigation	Investigation Specific tools are used for particular purposes. For example, scissors are used for cutting and glue is used for sticking.	Investigation Different tools have characteristics that make them suitable for specific purposes. For example, scissors are used for cutting paper because they have sharp, metal blades that can cut through thin materials.	Investigation Specific tools can be used for cutting, such as saws. Wood can be joined using glue, nails, staples or a combination. Safety rules must be followed to prevent injury from sharp blades. These rules include using a bench hook to keep the wood still, using a junior hacksaw with a pistol grip and working under adult supervision.	Investigation Useful tools for cutting include scissors, craft knives, junior hacksaws with pistol grip and bench hooks. Useful tools for joining include glue guns. Tools should only be used with adult supervision and safety rules must be followed.	Investigation There are many rules for using tools safely and these may vary depending on the tools being used. For example, someone using a chisel should chip or cut with the cutting edge pointing away from their body. All tools should be cleaned and put away after use, and should not be used if they are loose or cracked.	Investigation Precision is important in producing a polished, finished product. Correct selection of tools and careful measurement can ensure the parts fit together correctly.

	Evaluation Expressing ideas about a design might include comments about the colour or size as well as own preferences.	Evaluation A strength is a good quality of a piece of work. A weakness is an area that could be improved.	Evaluation Finished products can be compared with design criteria to see how closely they match. Improvements can then be planned.	Evaluation Asking questions can help others to evaluate their product, such as asking them whether the selected materials achieved the purpose of the model.	Evaluation Evaluation can be done by considering whether the product does what it was designed to do, whether it has an attractive appearance, what changes were made during the making process and why the changes were made. Evaluation also includes suggesting improvements and explaining why they should be made.	Evaluation Testing a product against the design criteria will highlight anything that needs improvement or redesign. Changes are often made to a design during manufacture.	Evaluation Design is an iterative process, meaning alterations and improvements are made continually throughout the manufacturing process. Evaluating a product while it's being manufactured, and explaining these evaluations to others, can help to refine it.
Nature	Food preparation and cooking Using non-standard measures is a way of measuring that does not involve reading scales. For example, weight may be measured using a balance scale and lumps of plasticine. Length may be measured in the number of handspans or pencils laid end to end.	Food preparation and cooking Some ingredients need to be prepared before they can be cooked or eaten. There are many ways to prepare ingredients: peeling skins using a vegetable peeler, such as potato skins; grating hard ingredients, such as cheese or chocolate; chopping vegetables, such as onions and peppers and slicing foods, such as bread and apples.	Food preparation and cooking Preparation techniques for savoury dishes include peeling, chopping, deseeding, slicing, dicing, grating, mixing and skinning.	Food preparation and cooking Cooking techniques include baking, boiling, frying, grilling and roasting.	Food preparation and cooking Sweet dishes are usually desserts, such as cakes, fruit pies and trifles. Savoury dishes usually have a salty or spicy flavour rather than a sweet one.	Food preparation and cooking Ingredients can usually be bought at supermarkets, but specialist shops may stock different items. Greengrocers sell fruit and vegetables, butchers sell meat, fishmongers sell fresh fish and delicatessens usually sell some unusual prepared foods, as well as cold meats and cheeses.	

	Nutrition Fruit and vegetables are an important part of a healthy diet. It is recommended that people eat at least five portions of fruit and vegetables every day.	Nutrition Fruit and vegetables are an important part of a healthy diet. It is recommended that people eat at least five portions of fruit and vegetables every day. On long sea journeys, fresh fruit and vegetables were not available as they would go rotten.	Nutrition There are five main food groups that should be eaten regularly as part of a balanced diet: fruit and vegetables; carbohydrates (potatoes, bread, rice and pasta); proteins (beans, pulses, fish, eggs and meat); dairy and alternatives (milk, cheese and yoghurt) and fats (oils and spreads). Foods high in fat, salt and sugar should only be eaten occasionally as part of a healthy, balanced diet.	Nutrition Healthy snacks include fresh or dried fruit and vegetables, nuts and seeds, rice cakes with low-fat cream cheese, homemade popcorn or chopped vegetables with hummus. A healthy packed lunch might include a brown or wholemeal bread sandwich containing eggs, meat, fish or cheese, a piece of fresh fruit, a low-sugar yoghurt, rice cake or popcorn and a drink, such as water or semi-skimmed milk.	Nutrition A balanced diet gives your body all the nutrients it needs to function correctly. This means eating a wide variety of foods in the correct proportions.	Nutrition Eating a balanced diet is a positive lifestyle choice that should be sustained over time. Food that is high in fat, salt or sugar can still be eaten occasionally as part of a balanced diet.
	Origins of food Sort foods into groups by whether they are from an animal or plant source. Some foods come from animals, such as meat, fish and dairy products. Other foods come from plants, such as fruit and vegetables, grains, beans and nuts.	Origins of food Some foods come from animals, such as meat, fish and dairy products. Other foods come from plants such as fruit, vegetables, grains, beans and nuts.	Origins of food The types of food that will grow in a particular area depend on a range of factors, such as the rainfall, climate and soil type. For example, many crops, such as potatoes and sugar beet, are grown in the south-east of England. Wheat, barley and vegetables grow well in the east of England	Origins of food The types of food that will grow in a particular area depend ion the range of factors such as rainfall, climate and soil type.	Origins of food Seasonality is the time of year when the harvest or flavour of a type of food is at its best. Buying seasonal food is beneficial for many reasons: the food tastes better; it is fresher because it hasn't been transported thousands of miles; the nutritional value is higher; the carbon footprint is lower, due to reduced transport; it supports local growers and is usually cheaper.	Origins of food Organic produce is food that has been grown without the use of man-made fertilisers, pesticides or animal feed additives.

Processes	Mechanisms and movement Toys can work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images.	Mechanisms and movement An axle is a rod or spindle that passes through the centre of a wheel to connect two wheels.	Mechanisms and movement A mechanism is a device that takes one type of motion or force and produces a different one. A mechanism makes a job easier to do. Mechanisms include sliders, levers, linkages, gears, pulleys and cams.	Mechanisms and movement Levers consist of a rigid bar that rotates around a fixed point, called a fulcrum. They reduce the amount of work needed to lift a heavy object. Sliders move from side to side or up and down, and are often used to make moving parts in books. Axles are shafts on which wheels can rotate to make a moving vehicle. Cams are devices that can convert circular motion into up-and down motion.	Mechanisms and movement Mechanisms can be used to add functionality to a model.	Mechanisms and movement Pneumatic systems use energy that is stored in compressed air to do work.	Mechanisms and movement Mechanical systems can include sliders, levers, linkage, gears, pulleys and cams.
		Electricity Electricity is a form of energy. Many household appliances use electricity.	Electricity A series circuit is made up of an energy source, such as a battery or cell, wires and a bulb. The circuit must be complete for the electricity to flow.	Electricity An electric circuit can be used in a model, such as a lighthouse. It can be controlled using a switch.	Electricity Components can be added to circuits to achieve a particular goal. These include bulbs for lighthouses and torches, buzzers for burglar alarms and electronic games, motors for fairground rides and motorised vehicles and switches for lights and televisions.	Electricity Electrical circuits can be controlled by a simple on/off switch, or by a variable resistor that can adjust the size of the current in the circuit. Real-life examples are a dimmer switch for lights or volume control on a stereo.	Electricity Computer programmes can control electrical circuits that include a variety of components.

Cornerstones

Design Technology Skills Progression

Big Idea	N	R	1	2	3	4	5	6
Compariso	Compare and contrast Beginning to be interested on and describe the texture of things.		Compare and contrast Describe he similarities and differences between two products.	Compare and contrast Compare different brands of the same product and explain their similarities and differences	Compare and contrast Explain the similarities and difference between the work of two designers	Compare and contrast Create and complete a comparison table to compare two or more products.	Compare and contrast Survey users in a range of focus groups and compare results.	Compare and Contrast Create a detailed comparative report about two or more products or interventions.
Humankind	Everyday products Use what they have learnt about materials in original way thinking about uses and purposes.		Everyday products Name and explore a range of everyday products and describe how they are used.	Everyday products Explain how an everyday product could be improved.	Everyday products Explain how an existing product benefits the user.	Everyday products Investigate and identity features of a familiar product.	Everyday products Explain how the design of a product has been influenced by the culture or society in which it was designed or made.	Everyday products Analyse how an invention or product has significantly change or improved people's lives.
	Staying safe Use simple tools and techniques competently and appropriately		Staying safe Follow the rules to keep safe during a practical task.	Staying safe Work safely and hygienically in construction and cooking activities.	Staying safe Use appliances safely and with adult supervision.	Staying safe Work safely with everyday chemical products under supervision, such as disinfectant hand wash and surface cleaning spray.	Staying safe Explain the functionality and purpose of safety features on a range of products.	Staying safe Demonstrate how their products take into account the safety of the user.
Materials	Materials for Purpose Use what they have learnt about materials in original ways thinking about uses and purposes.		Materials for Purpose Select and use a range of material, beginning to explain their choices.	Materials for Purpose Choose appropriate components and materials and suggest ways of manipulating them to achieve the desired effect.	Materials for Purpose Plan which will be needed for a task and explain why.	Materials for Purpose Choose from ma range of materials, showing an understanding of their different characteristics.	Materials for Purpose Select and combine materials with precision.	Materials for Purpose Choose the best materials for a task, showing an understanding of their working characteristics.

Significance	Significant people Represent their own idea and thoughts and feelings thought design and technology.	Significant people Describe why a product is important.	Significant people Explain why a designer or inventor is important.	Significant people describe how key events in design and technology shaped the world.	Significant people Explain how and why a significant designer or inventor shaped the world.	Significant people Describe the social influence of a significant designer or inventor.	Significant people Present a detailed account of the significance of a favourite designer or inventor.
Nature		Food preparation and cooking Measure and weigh food items using non-standard measures, such as spoons and cups.	Food preparation and cooking Prepare ingredients by peeling, grating, chopping and slicing.	Food preparation and cooking Prepare and cook a simple savoury dish.	Food preparation and cooking Identify and use a range of cooking techniques to prepare a simple meal.	Food preparation and cooking Use an increasing range of preparation and cooking techniques to cook a sweet or savoury dish.	Food preparation and cooking Follow a recipe that requires a variety of techniques and source the necessary ingredients independently.
		Nutrition Select healthy ingredients for a fruit or vegetable salad.	Nutrition Prepare ingredients by pealing, grating, shopping and slicing.	Nutrition Prepare and cook a simple savoury dish.	Nutrition Identify and use a range of cooking techniques to prepare a simple meal.	Nutrition Use an increasing range of preparation and cooking techniques to cook a sweet or savoury dish.	Nutrition Follow a recipe that requires a variety of techniques and source the necessary ingredients independently.
Creativity	Generation of Ideas Through their exploration they find out and make decisions about materials can be combined.	Generation of ideas Create a design to meet simple design criteria.	Generation of ideas Generate and communicate their ideas through a range of different methods.	Generation of ideas Develop a design criteria to inform a design.	Generation of ideas Use annotated sketches and exploded diagrams to test and communicate their ideas.	Generation of ideas Use pattern pieces and computer-aided design packages to design a product.	Generation of ideas Develop design criteria for a functional and appealing product that is for purpose, communicating ideas clearly in a range of ways.

	Structures Joins construction pieces together to build and balance Beginning to construct, stacking blocks vertically and horizontally making enclosures and creating spaces	Structures Construct simple structures, models or other products using a range of materials.	Structures Explore how a structure can be made stronger, stiffer and more stable.	Structures Create shell or frame structure using diagonal struts to strengthen them.	Structures Prototype shell and frame structures, showing awareness of how to strengthen, stiffen and reinforce them.	Structures Build a framework using a range of material to support mechanisms.	Structures Select the most appropriate materials and frameworks for different structures explaining what makes them strong.
Investigation	Investigation Selects tools and techniques needed to shape, assemble and join materials they are using.	Investigation Select the appropriate tool for a simple practical task.	Investigation Select the appropriate tool for a task and explain their choice.	Investigation Use tools safely for cutting and joining materials and components.	Investigation Select, name and use tools with adult supervision.	Investigation Name and select increasingly apprioate tools for a task and use them safely.	Investigation Select appropriate tools for a task and use them safely and precisely.
	Evaluation Talk about features of their own and other's work, recognising the difference between them and the strengths of others.	Evaluation Talk about their own and each other's work, identifying strengths or weaknesses and offering support.	Evaluation Explain how closely their finished products meet their design criteria and say what they could do better in the future.	Evaluation Suggest improvements to their products and describe how to implement them, beginning to take the views of others into account.	Evaluation Identify what has worked well and what aspects of their products could be improved, acting on their own suggestions and those of other when making improvements.	Evaluation Test and evualte products against a detailed design specification and make adaptions as they develop the product.	Evaluation Demonstrate modifications made to a product as a result of ongoing evaluation by themselves and to others.
		Origins of food Sort foods into groups by whether they are from an animal or plant source.	Origins of food Identify the origin of some common foods (milk, eggs, some meats, common fruit and vegetables)	Origins of food Identify and name foods that are produced in different places.	Origins of food Identify and name foods that are produced in different places in the UK and beyond.	Origins of food Describe what seasonality means and explain some of the reasons why it is beneficial.	Origins of food Explain what seasonality means and explain some of the reasons why it is beneficial.

Processes	Mechanisms and movement Use what they have learnt about materials in original ways thinking and uses and purposes. Constructs with a purpose in mind, using a variety of resources.	Mechanisms and movement Use wheels and axis to make a simple moving model.	Mechanisms and movement Use a range of mechanism (levers, sliders, wheels and axles in models or products.	Mechanisms and movement Explore and use a range of mechanisms (levers, sliders, axles, wheels and cams in models or products.	Mechanisms and movement Explore and use a range of mechanisms (levers, axles, cams, gears and pulleys) in models or products.	Mechanisms and movement Use mechanical systems in their products, such as pneumatics and hydraulics.	Mechanisms and movement Explain and use mechanical systems in their products to meet a design brief.
		Electricity Identify products that use electricity to make them work and describe how to switch them on and off.	Electricity Create an operational simple series circuit.	Electricity Incorporate a simple series circuit into a model.	Electricity Incorporate circuits that is a variety of components into models or products.	Electricity Use electrical circuits of increasing complicity in their models or products, showing an understanding on control.	Electricity Understand and use electrical circuits that incorporate a variety of components (switches, lamps, buzzers and motors) and use programming to control their products.