

Design & Technology Intent

	Autumn		Spring		Summer	
Nursery	Family/birthdays	Traditional tales	People who help us	Growing	Farm	Local area & the world
Design	Develop their own ideas and then decide which materials to use to express them. (DM 3-4years) Use their imagination as they consider what they can do with different materials (DM birth to 3)					
Make	Uses various construction materials e.g. joining pieces, stacking vertically and horizontally, balancing, making enclosures and creating spaces. (Range 5) Uses 3D and 2D structures to explore materials and/or to express ideas (Range 4)					
Evaluate	During the 'make' phase children refine and respond, making necessary changes, with some skilled adult interaction.					
Technical Knowledge	<p>Begin to explore how to make freestanding structures stronger or more stable (indoors and outdoors). (structures)</p> <p>Learn how to use different techniques for joining materials, such as adhesive tape and different sorts of glue with increasing precision and confidence with guidance. (textiles)</p>	<p>Learn how to use different techniques for joining materials, such as adhesive tape and different sorts of glue with increasing precision and confidence with guidance. (textiles)</p> <p>Begin to explore how to make freestanding structures stronger or more stable (indoors and outdoors). (structures)</p>	<p>Learn how to use different techniques for joining materials, such as adhesive tape and different sorts of glue with increasing precision and confidence with guidance. (textiles)</p> <p>Begin to explore how to make freestanding structures stronger or more stable (indoors and outdoors). (structures)</p> <p>Begin to explore, with adult support, how to make things move using a range of materials including construction kits, split pins and treasury tags. (mechanisms)</p>	<p>To understand how to safely use some simple utensils and equipment to e.g. squeeze, grate and chop with guidance. (food)</p> <p>Can begin to talk about healthy foods, and begins to understand the importance of making positive decisions regarding eating plenty of fruit and vegetables. (food)</p>	<p>Begin to explore how to make freestanding structures stronger or more stable (indoors and outdoors). (structures)</p> <p>Begin to explore, with adult support, how to make things move using a range of materials including construction kits, split pins and treasury tags. (mechanisms)</p>	<p>Begin to explore how to make freestanding structures stronger or more stable (indoors and outdoors). (structures)</p>

	Autumn		Spring		Summer	
Reception	Autumn	Transport	Dinosaurs	Around the World	Growing/mini-beasts	Superheroes
Design	Uses their increasing knowledge and understanding of tools and materials to explore their interests and enquiries and develop their thinking (Range 6) Share their creations, explaining the process they have used (ELG)					
Make	Uses tools for a purpose (Range 5) Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function (ELG) Make use of props and materials when role playing characters in narratives and stories. (ELG)					
Evaluate	Develops their own ideas through experimentation with diverse materials, e.g. light, projected image, loose parts, watercolours, powder paint, to express and communicate their discoveries and understanding. (Range 6) Share their creations, explaining the process they have used (ELG) Return to and build on their previous learning, refining ideas and developing their ability to represent them. (DM)					
Technical Knowledge	<p>Can talk about healthy foods, understanding the importance of making positive decisions regarding eating plenty of fruit and vegetables. (food)</p>	<p>Know how to make freestanding structures stronger or more stable. (structures).</p> <p>Know how to make things that move using a range of materials including construction kits (mechanisms)</p>	<p>Know how to make freestanding structures stronger or more stable. (structures).</p> <p>Can talk about healthy foods, understanding the importance of making positive decisions regarding</p>	<p>Use different techniques for joining materials, such as adhesive tape and different sorts of glue. (textiles)</p> <p>Can talk about healthy foods, understanding the importance of making positive decisions regarding</p>	<p>Can talk about healthy foods, understanding the importance of making positive decisions regarding eating plenty of fruit and vegetables. (food)</p>	<p>Use different techniques for joining materials, such as adhesive tape and different sorts of glue. (textiles)</p> <p>Know how to make things that move using a range of materials including construction kits (mechanisms)</p>

	<p>To know about the different factors that support their overall well-being including healthy eating. (food)</p> <p>To understand how to safely use some simple utensils and equipment to e.g. peel, cut, slice, squeeze, grate and chop. (food)</p>		<p>eating plenty of fruit and vegetables. (food)</p>	<p>eating plenty of fruit and vegetables. (food).</p> <p>To know about the different factors that support their overall well-being including healthy eating. (food)</p> <p>To understand how to safely use some simple utensils and equipment to e.g. peel, cut, slice, squeeze, grate and chop. (food)</p> <p>Know how to make freestanding structures stronger or more stable. (structures).</p> <p>Know how to make things that move using a range of materials including construction kits. (mechanisms)</p>	<p>To know about the different factors that support their overall well-being including healthy eating. (food)</p> <p>To understand how to safely use some simple utensils and equipment to e.g. peel, cut, slice, squeeze, grate and chop. (food)</p>
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Cycle A KS1	Textiles – Glove Puppets	Food -Fruit and Vegetable Kebabs/Smoothies
Designing	<ul style="list-style-type: none"> Design appealing products for a particular user based on simple design criteria. Generate initial ideas and simple design criteria through talking and using own experiences. Develop, model and communicate their ideas through talking, templates, mock-ups and drawings. 	<ul style="list-style-type: none"> Design appealing products for a particular user based on simple design criteria. Generate initial ideas and design criteria through investigating a variety of existing products. Develop, model and communicate their ideas through talking and drawings.
Making	<ul style="list-style-type: none"> Select from and use a range of tools and equipment to perform practical tasks such as marking out, cutting, joining and finishing. Select from and use a wide range of materials and components such as textiles according to their characteristics. 	<ul style="list-style-type: none"> Select from a range of fruit and vegetables according to their characteristics e.g. colour, texture and taste to create a chosen product
Evaluating	<ul style="list-style-type: none"> Evaluate their ideas throughout and their final products against original design criteria. 	<ul style="list-style-type: none"> Explore and evaluate a range of existing products relevant to the project being undertaken. Evaluate their ideas throughout and their final products against original design criteria. Taste and evaluate a range of fruit and vegetables to determine the intended user's preferences
Technical Knowledge & Understanding	<ul style="list-style-type: none"> Understand how simple 3-D textile products are made, using a template to create two identical shapes. Understand how to join fabrics using different techniques e.g. running stitch, glue, over stitch, stapling. Explore different finishing techniques e.g. using painting, fabric crayons, stitching, sequins, buttons and ribbons. Know and use technical vocabulary relevant to the project. 	<ul style="list-style-type: none"> Understand where food comes from using a range of fruit and vegetables e.g. farmed or grown at home. Understand and use basic principles of a healthy and varied diet to prepare dishes, including how fruit and vegetables are part of The Eatwell plate. Know and use technical and sensory vocabulary relevant to the project Use simple utensils and equipment to e.g. peel, cut, slice, squeeze, grate and chop safely
Key Vocabulary	<p>Applique - to attach a decorative fabric item onto another piece of fabric by gluing and/or sewing.</p> <p>Seam - a row of stitches joining two pieces of fabric.</p> <p>Embroider - to decorate fabric with stitches.</p>	<p>Fruit - plant or tree's edible seed with envelope.</p> <p>Vegetable - plant used for food.</p> <p>Pith - the soft white lining inside fruit such as oranges.</p>
Additional Vocabulary	<p>Design - to generate, develop and communicate ideas for a product.</p> <p>Fray - to unravel or become worn at the edge.</p> <p>Glove puppet - a glove puppet fits over the hand, and the fingers operate its head and arms.</p> <p>Mock-up - a model which allows children to try out ideas using cheaper materials and temporary joints.</p> <p>Sew - to join pieces of fabric with stitches.</p> <p>Template - a shape drawn to assist in cutting out shapes.</p>	<p>Nutrients - all the things in food that the body needs to remain healthy.</p> <p>Salad - a cold dish of fresh and/or cooked vegetables or fruit.</p> <p>Sensory evaluation - subjective testing of foods where senses are used to evaluate qualities such as appearance, smell, taste, texture (mouth feel).</p> <p>Kebab - cooked and/or fresh ingredients on a skewer.</p>

Cycle B KS1	Structures - Bridges	Mechanisms – Moving Toys
Designing	<ul style="list-style-type: none"> Design a functional and appealing product for themselves and a chosen user and purpose based on simple design criteria. Generate, develop, model and communicate their ideas as appropriate through talking and mock-ups. 	<ul style="list-style-type: none"> Design a functional and appealing product for themselves and a chosen user and purpose based on simple design criteria. Generate, develop, model and communicate their ideas as appropriate through talking and information and communication technology.
Making	<ul style="list-style-type: none"> Plan by suggesting what to do next. Select and use tools, skills and techniques, explaining their choices. Use simple finishing techniques suitable for the structure they are creating Select from and use a range of tools and equipment to perform practical tasks such as cutting, joining and finishing. Select from and use a wide range of materials and components such as paper, card and wood according to their characteristics. 	<ul style="list-style-type: none"> Plan by suggesting what to do next. Select and use tools, skills and techniques, explaining their choices. Select from and use a range of tools and equipment to perform practical tasks such as cutting and joining to allow movement and finishing. Select from and use a wide range of materials and components such as paper, card, plastic, wood or construction kits according to their characteristics.
Evaluating	<ul style="list-style-type: none"> Explore a range of existing freestanding structures in the school and local environment e.g. everyday products and buildings. Evaluate their product by discussing how well it works in relation to the purpose, the user and whether it meets the original design criteria. 	<ul style="list-style-type: none"> Explore and evaluate a range of products with wheels and axles. Evaluate their product by discussing how well it works in relation to the purpose, the user and whether it meets the original design criteria.
Technical Knowledge & Understanding	<ul style="list-style-type: none"> Know how to make freestanding structures stronger, stiffer and more stable. Know and use technical vocabulary relevant to the project. 	<ul style="list-style-type: none"> Explore and use mechanisms including wheels, axles and axle holders. Distinguish between fixed and freely moving axles. Know and use technical vocabulary relevant to the project.
Key Vocabulary	<p>Stability – in relation to a freestanding structure, the extent to</p> <p>Buttress – a structure added to a wall, tower or framework to make it more stable and/or reinforce it.</p> <p>Freestanding structure – a structure that stands on its own foundation or base without attachment to anything else.</p>	<p>Chassis – the frame or base on which a vehicle is built.</p> <p>Axle – a rod on which one or more wheels can rotate, either freely or be fixed to and turn with the axle.</p> <p>Cab - the covered part of a vehicle where the driver would sit.</p>
Additional Vocabulary	<p>Frame structure – a structure made from thin components e.g. tent frame.</p> <p>Shell structure – a hollow structure with a thin outer covering.</p> <p>Which it is likely to fall over if a force is applied.</p> <p>Brick bonding – arranging bricks in a wall to improve the performance of the structure or improve its appearance.</p> <p>Mock-up – 3-D representation of a product.</p>	<p>Axle holder – the component through which an axle fits and rotates.</p> <p>Friction – resistance which is encountered when two things rub together.</p> <p>Dowel – wooden rods used for making axles to hold wheels.</p>

Cycle A LKS2	Structures – Money box using CAD	Mechanisms – Levers and linkages (storybook)
Designing	<ul style="list-style-type: none"> Generate realistic ideas and design criteria collaboratively through discussion, focusing on the needs of the user and the functional and aesthetic purposes of the product. Use annotated sketches and prototypes to develop, model and communicate ideas. Develop ideas through the analysis of existing shell structures and use computer-aided design to model and communicate ideas. 	<ul style="list-style-type: none"> Generate realistic ideas and design criteria collaboratively through discussion, focusing on the needs of the user and the functional and aesthetic purposes of the product. Use annotated sketches and prototypes to develop, model and communicate ideas.
Making	<ul style="list-style-type: none"> Plan the order of the main stages of making. Explain their choice of materials according to functional properties and aesthetic qualities. Use computer-generated finishing techniques suitable for the product they are creating. Select and use appropriate tools and software to measure, mark out, cut, score, shape and assemble with some accuracy. Select from and use finishing techniques suitable for the product they are creating. 	<ul style="list-style-type: none"> Plan the order of the main stages of making. Use computer-generated finishing techniques suitable for the product they are creating. Select from and use appropriate tools with some accuracy to cut, shape and join paper and card. Select from and use finishing techniques suitable for the product they are creating.
Evaluating	<ul style="list-style-type: none"> Investigate and evaluate a range of shell structures including the materials, components and techniques that have been used. Test and evaluate their own products against design criteria and the intended user and purpose. 	<ul style="list-style-type: none"> Investigate and analyse books and, where available, other products with lever and linkage mechanisms. Test and evaluate their own products against design criteria and the intended user and purpose.
Technical Knowledge & Understanding	<ul style="list-style-type: none"> Develop and use knowledge of nets of cubes and cuboids and, where appropriate, more complex 3D shapes. Develop and use knowledge of how to construct strong, stiff shell structures. Know and use technical vocabulary relevant to the project. 	<ul style="list-style-type: none"> Understand and use lever and linkage mechanisms. Distinguish between fixed and loose pivots. Know and use technical vocabulary relevant to the project.
Key Vocabulary	<p>Shell structure - a hollow structure made from a thin outer layer. Many buildings use a shell structure including the O2 and Shard. Computer Aided Design (CAD) is the use of computer-based software to aid in design processes. CAD software is frequently used by different types of engineers and designers.</p> <p>Annotated sketch - a combination of notes and labelled drawings that provide an explanation about a scientific process.</p>	<p>Mechanism - a device used to create movement in a product.</p> <p>Lever - a rigid bar which moves around a pivot. Levers are used in many everyday products. In this project children will use card strips for levers and paper fasteners for pivots.</p> <p>Linkage - the card strips joining one or more levers to produce the type of movement required. The term 'linkage' is also used to describe the lever and linkage mechanism as a whole.</p>
Additional Vocabulary	<p>Edge - where two surfaces meet at an angle. (KS1 maths link)</p> <p>Face - a surface of a geometric shape. (KS1 maths link)</p> <p>Vertex - the corners of a geometric shape where edges meet. (KS1 maths link)</p> <p>Font - a printer's term meaning the style of lettering being used. (Computing link)</p> <p>Net - the flat or opened-out shape of an object such as a box. (KS1 maths link)</p> <p>Cuboid - a solid body with rectangular sides. (KS1 maths link)</p> <p>Prism - a solid geometric shape with ends that are similar, equal and parallel. (KS1 maths link)</p>	<p>Slot - the hole through which a lever is placed to enable part of a picture to move.</p> <p>Guide or bridge - a short card strip used to keep lever and linkage mechanisms in place and control movement.</p> <p>Loose pivot - a paper fastener that joins card strips together.</p> <p>Fixed pivot - a paper fastener that joins card strips to the backing card.</p> <p>System - a set of related parts or components used to create an outcome. Systems have an input, process and an output. In a lever and linkage mechanism, the 'input movement' is where the user pushes or pulls a card strip. The 'output movement' is where one or more parts of the picture move. (Computing link)</p>

Cycle B LKS2	Textiles – pencil case	Food – healthy sandwich/wrap/pitta
Designing	<ul style="list-style-type: none"> Generate realistic ideas through discussion and design criteria for an appealing, functional product fit for purpose and specific user/s. Produce annotated sketches, prototypes, final product sketches and pattern pieces. 	<ul style="list-style-type: none"> Generate realistic ideas through discussion and design criteria for an appealing, functional product fit for purpose and specific user/s. Produce annotated sketches.
Making	<ul style="list-style-type: none"> Plan the main stages of making Select and use a range of appropriate tools with some accuracy e.g. cutting, joining and finishing. Select fabrics and fastenings according to their functional characteristics e.g. strength, and aesthetic qualities e.g. pattern. 	<ul style="list-style-type: none"> Plan the main stages of making Plan the main stages of a recipe, listing ingredients, utensils and equipment Select and use appropriate utensils and equipment to prepare and combine ingredients. Select from a range of ingredients to make appropriate food products, thinking about sensory characteristics.
Evaluating	<ul style="list-style-type: none"> Investigate a range of 3-D textile products relevant to the project. Evaluate their ongoing work and test their product against the original design criteria and with the intended user. Take into account others' views. Understand how a key event/individual has influenced the development of the chosen product and/or fabric 	<ul style="list-style-type: none"> Carry out sensory evaluations of a variety of ingredients and products. Record the evaluations using e.g. tables and simple graphs. Evaluate their ongoing work and test their product against the original design criteria and with the intended user. Take into account others' views.
Technical Knowledge & Understanding	<ul style="list-style-type: none"> Apply knowledge of how to strengthen, stiffen and reinforce existing fabrics. Understand how to securely join two pieces of fabric together. Understand the need for patterns and seam allowances. Know and use technical vocabulary relevant to the project. 	<ul style="list-style-type: none"> Know how to use appropriate equipment and utensils to prepare and combine food including using the claw and bridge cutting technique. Know about a range of fresh and processed ingredients appropriate for their product, and whether they are grown, reared or caught. Know and use relevant technical and sensory vocabulary appropriately
Key Vocabulary	<p>Prototype - a model that is made to test whether a design will work.</p> <p>Aesthetics - the way in which the product looks with the nature and expression of beauty.</p> <p>Pattern - a shape drawn to exact shape and size and used to assist cutting out.</p>	<p>Processed food - ingredients that have been changed in some way to enable them to be eaten or used in food preparation and cooking.</p>

		<p>Reared food includes animals from farming. There are two main types of farming, intensive and organic. Intensive is usually a large scale operation where the farmer is relying on it for his income. Organic is usually on a much smaller scale where the animals and environment are the priority.</p> <p>Caught food generally refers to the process of catching fish. This means they have been caught in the wild using nets, hand lines, divers or traps to help catch different seafood.</p>
Additional Vocabulary	<p>Appliqué – means ‘applied’ - describes method of stitching/gluing patches onto fabric (originally to mend holes in worn clothes) to provide decoration. (KS1)</p> <p>Seam – a line of stitching that joins pieces of fabrics together. (KS1)</p> <p>Seam Allowance – extra fabric allowed for joining together - usually 1.5cm.</p>	<p>Appearance – how the food looks to the eye.</p> <p>Texture – how the product feels in the mouth.</p> <p>Sensory evaluation – evaluating food products in terms of the taste, smell, texture and appearance.</p> <p>Preference test – trying different foods and deciding which you like best.</p> <p>Strawberry huller – tool to remove the stalk and leaves from a strawberry.</p>

Cycle A UKS2	Mechanisms – pulleys and gears (fairground ride)	Food – seasonality (bread/dough)
Designing	<ul style="list-style-type: none"> Generate innovative ideas through research and discussion with peers and adults to develop a design brief and criteria for a design specification. Develop and communicate ideas through discussion, annotated drawings, exploded diagrams and drawings from different views. Explore a range of initial ideas, and make design decisions to develop a final product linked to user and purpose. 	<ul style="list-style-type: none"> Develop and communicate ideas through discussion and annotated drawings. Explore a range of initial ideas, and make design decisions to develop a final product linked to user and purpose.
Making	<ul style="list-style-type: none"> Produce detailed lists of tools, equipment and materials. Formulate step-by-step plans and, if appropriate, allocate tasks within a team. Select from and use a range of tools and equipment to make products that that are accurately assembled and well finished. 	<ul style="list-style-type: none"> Write a step-by-step recipe, including a list of ingredients, equipment and utensils. Make, decorate and present the food product appropriately for the intended user and purpose Produce detailed lists of tools, equipment and materials. Select and use appropriate utensils and equipment accurately to measure and combine appropriate ingredients.
Evaluating	<ul style="list-style-type: none"> Evaluate the final product with reference back to the design brief and design specification, taking into account the views of others when identifying improvements Test products with intended user and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose. Consider the views of others to improve their work Investigate famous manufacturing and engineering companies relevant to the project. 	<ul style="list-style-type: none"> Carry out sensory evaluations of a range of relevant products and ingredients. Record the evaluations using e.g. tables/graphs/charts such as star diagrams Evaluate the final product with reference back to the design brief and design specification, taking into account the views of others when identifying improvements Consider the views of others to improve their work Understand how key chefs have influenced eating habits to promote varied and healthy diets
Technical Knowledge & Understanding	<ul style="list-style-type: none"> Know how to use utensils and equipment including heat sources to prepare and cook food. Understand about seasonality in relation to food products and the source of different food products. Know and use relevant technical and sensory vocabulary. 	<ul style="list-style-type: none"> Understand that mechanical and electrical systems have an input, process and an output. Understand how gears and pulleys can be used to speed up, slow down or change the direction of movement. Know and use technical vocabulary relevant to the project.
Key Vocabulary	<p>Mesh – the point where two gears join together and transfer movement.</p> <p>Motor spindle – the rod on the end of the motor onto which a gear or pulley is attached.</p> <p>Drive belt – the belt which connects and transfers movement between two pulleys.</p>	<p>Knead – pulling and squeezing dough to make it smooth.</p> <p>Seasonality - the times of the year when a given type of food is at its peak, either in terms of harvest or its flavour. This is usually when the product is cheapest and freshest.</p> <p>Yeast - A tiny plant which makes bubbles of carbon dioxide when mixed with flour and warm water.</p>
Additional Vocabulary	<p>Pulley – a grooved wheel over which a drive belt can run.</p> <p>Gear – a wheel with teeth around its circumference.</p> <p>Gearing up or down – changing the rotational speed of a product by the use of pulleys or gears. When a small pulley or gear is used to drive a larger one the rotational speed is reduced and the product has been geared down.</p> <p>Mechanical system – a set of related parts or components used to create movement.</p> <p>Driver – the gear or pulley that provides the input movement to the system.</p> <p>Follower – the gear or pulley that provides the output movement to the system.</p>	<p>Finishing – related to the appearance of the product – shape, decoration and colour.</p> <p>Rubbing in – rubbing the dry ingredients together with the fat, lifting to put air into the mixture, so that it resembles fine breadcrumbs.</p> <p>Bran – the hard, protective shell of a grain of wheat. (Science link)</p> <p>Dough – a mixture of flour, yeast and water before it is cooked.</p> <p>Germ – part of the seed where the root and shoots grow from. (Science link)</p> <p>Unleavened bread – flat bread where yeast has not been added.</p>

Cycle B UKS2	Structures – outdoor shelters	Electrical Systems
Designing	<ul style="list-style-type: none"> • Generate, develop, model and communicate innovative ideas, through discussion, cross-sectional and exploded diagrams • Develop a simple design specification to guide the development of their ideas and products, taking account of constraints including time, resources and cost. • Carry out research into user needs and existing products and web-based resources. 	<ul style="list-style-type: none"> • Generate, develop, model and communicate innovative ideas, through discussion and computer aided design. • Carry out research into user needs and existing products, using surveys, interviews, questionnaires and web-based resources.
Making	<ul style="list-style-type: none"> • Formulate a clear plan, including a step-by-step list of what needs to be done and lists of resources to be used. • Use finishing and decorative techniques suitable for the product they are designing and making. • Formulate a step-by-step plan to guide making, listing tools, equipment, materials and components. • Competently select from and use appropriate tools to accurately measure, mark out, cut, shape and join construction materials to make frameworks. 	<ul style="list-style-type: none"> • Formulate a clear plan, including a step-by-step list of what needs to be done and lists of resources to be used. • Use finishing and decorative techniques suitable for the product they are designing and making. • Formulate a step-by-step plan to guide making, listing tools, equipment, materials and components. • Competently select and accurately assemble materials, and securely connect electrical components to produce a reliable, functional product. • Create and modify a computer control program to enable their electrical product to respond to changes in the environment.
Evaluating	<ul style="list-style-type: none"> • Investigate, analyse and evaluate a range of existing frame structures. • Critically evaluate their products against their design specification, intended user and purpose, identifying strengths and areas for development, and carrying out appropriate tests. • Continually evaluate and modify the working features of the product to match the initial design specification. • Research key events and individuals relevant to frame structures. 	<ul style="list-style-type: none"> • Critically evaluate their products against their design specification, intended user and purpose, identifying strengths and areas for development, and carrying out appropriate tests. • Test the system to demonstrate its effectiveness for the intended user and purpose.
Technical Knowledge & Understanding	<ul style="list-style-type: none"> • Understand how to strengthen, stiffen and reinforce 3-D frameworks. • Know and use technical vocabulary relevant to the project. 	<ul style="list-style-type: none"> • Understand and use electrical systems in their products. • Understand the use of computer control systems in products. • Apply their understanding of computing to program, monitor and control their products. • Know and use technical vocabulary relevant to the project.
Key Vocabulary	<p>Strut – a part of a structure under compression. Tension – a force pulling on a material or structure. Frame structure – a structure made from thin components e.g. tent frame</p>	<p>Microcontroller – a device that can be programmed to control how an electrical product operates. Light emitting diode (LED) – an output device that glows when electricity is passed through it. Cross-sectional diagram - In technical drawing, this is a section of a plan, in which the object is cut at right angles to the axis. It is a common tool used to depict the internal arrangement of a 3-dimensional object in two dimensions.</p>
Additional Vocabulary	<p>Modelling – the process of making a 3-D representation of a structure or product. Compression – the application of pressure to squeeze an object. Tie – a part of a structure under tension. Diagonal – a straight line that goes from one corner to another inside a shape. (Maths link) Horizontal – a line that is parallel to the ground. (Maths link) Vertical – a line that is at right angles to the ground. (Maths link) Triangulation – the use of triangular shapes to strengthen a structure.</p>	<p>Program – a sequence of instructions that can be used to control electrical components. (Computing link) System – a set of related parts or components that together achieve a desired outcome. (Computing link) Output devices – components that produce an outcome e.g. bulbs, motors and buzzers. (Science link) Input devices – components that are used to control an electrical circuit e.g. switches. (Science link) Process – how a computer program controls one or more output devices. (Computing link)</p>