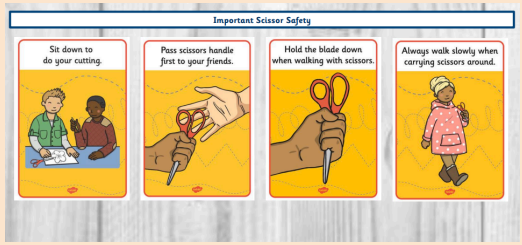
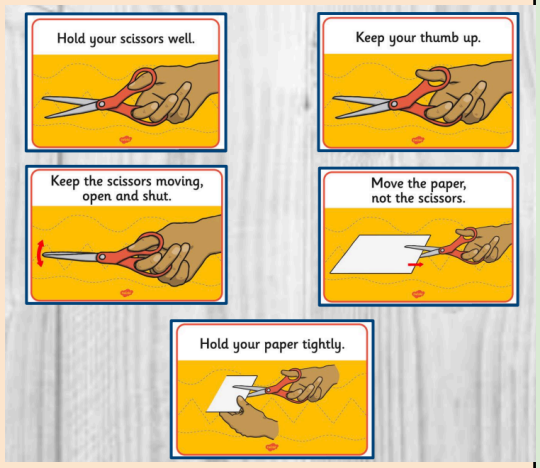
The Echelford Primary School - DT Progression Document

Structures			
	Reception	**Year 1**	**Year 2**
Product	**Naughty Bus** **Junk Modelling Vehicles** **Ongoing through Continuous Provision and Junk Modelling**	**Rockets**	**Houses**
Research	Talk about products that already exist and are familiar to them.	Research products that already exist	**Explore and evaluate a range of existing products**
Design	**Creates collaboratively sharing ideas, resources and skills** Discuss thoughts and ideas. Think about resources that will be needed. E.g tape, glue, scissors, paint etc.	**Discuss and draw ideas and use ICT to communicate** **Design simple products that work and look appealing** Explain what they are making and what materials they are using. To use pictures and words to describe what they need to do.	**Design products for others and themselves that are purposeful, functional and appealing** **Generate, develop, model and communicate ideas through talking, drawing, templates and ICT**

		• Design - A plan for the construction of an object or system that has a purpose. • Design Criteria - A list of goals which the product must meet in order to be successful.	
Make	**Safely uses and explores a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function (ELG: Creating with Materials)** Uses simple tools and techniques safely (e.g. scissors) Choose resources independently for their chosen activity. Use tape or glue to join pieces together. Adapt work where necessary.	**Use a range of tools and equipment to perform practical tasks eg cut, shape, join and finish** **Use a range of materials and components eg construction, textiles and ingredients** To select from and use a range of tools and equipment to perform practical tasks. eg. cutting, shaping, joining, finishing. To experiment with different materials to design and make products in 2 and 3 dimensions. • Mock up - When you test out your design by making it up. • It is important to choose a material carefully when making a product.	**Build structures, exploring ways to stiffen, stabilise and strengthen** Explore and use mechanisms - hinges To investigate different techniques for stiffening a variety of materials and explore different methods of enabling structures to remain stable. To choose tools to use and select materials based on my knowledge of their properties Fold, tear and cut paper and card Select and name the tools needed to work for the materials Roll paper to create tubes Create hinges **Select from and use a wide range of materials and components (according to their characteristics) eg construction, textiles and ingredients**

			Select from and use a wide range of tools and equipment to perform practical tasks eg cut, shape, join and finish
Evaluate	**Makes use of props and materials when role playing characters in narratives and stories (ELG: Creating with Materials)** **Shares his/her creations, explaining the process he/she has used (ELG: Creating with Materials)** Talk about what has been made and the steps taken to achieve the outcome.	**Explore existing products eg home, school** **Discuss own ideas and designs** Talk about what has been made and the steps taken to achieve the outcome. Discuss how their finished products meet their design criteria. Identify the good and bad points of their designs. Talk about changes made during the making process. Say what they like and don't like about items they have made and attempt to say why.	**Explore and evaluate a range of existing products eg home, school** **Evaluate own ideas and designs against given design criteria** Talk about their designs as they develop and identify good and bad points Discuss how closely their finished product meets their design criteria
Knowledge	Glue and sticky tape are joining materials. We join materials to make a simple product.	Scissors can be used to cut complex shapes. You may need to turn a page while keeping the scissors in the corner.  Rocket - A missile, spacecraft, aircraft or other vehicle powered by a rocket engine (an engine which forces out burning gasses).	A hinge can be attached to two things to make one of them move. You can find a hinge on a door. Rolling up paper can create a tube and this can be used to strengthen or stiffen a structure. Scissors are a tool I would use for a neat cut, or I could tear and fold card. Frame Structures There are different ways you can assemble frame structures. They could be made from materials such as wood, cardboard, paper, metal or plastic. They have





Launch - When a rocket is propelled into space.

Measure - To accurately find the length of an object.

Join - To connect two things together.

Assemble - To join all the parts together.

Attach - To join something to something else.

the following parts: -

Base - the bottom of something

Top - the highest point, the upper edge or surface

Side - a line forming the boundary

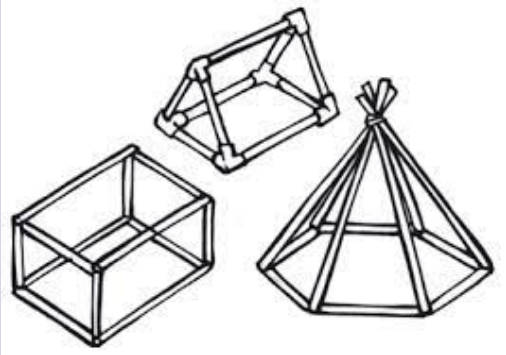
- Frame Structure - building the inside supports first of something and then adding an outside covering
- Stable - something that does not fall over easily
- Weak - not strong, fragile, easily broken
- Strong - not easily broken, sturdy
- Cladding - a material put on top of something else to protect it or make it look better
- Structure - something that has been made and put together and can stand on its own
- Function - the purpose of an object
- Architect - a person who designs buildings
- Material - the matter from which a thing is made

Structures		
	Year 3	**Year 6** **(Structures and Mechanisms)**
Product	**Structures to withstand an earthquake**	**Shadow Puppet Theatre**
Research	**Use research to inform design**	**Use research to inform innovative design and generate own design criteria**
Design	**Communicate ideas using different strategies eg discussion, sketch** **Use research to inform design** **Take risks to become innovative and resourceful** Develop more than one design or an adaptation of an initial design	**Confidently take calculated risks to become innovative, resourceful and enterprising** Generate, model and communicate ideas through discussion, annotate sketches,cross sectional and exploded diagrams, prototypes, pattern pieces and computer aided design. Follow a brief to achieve an effect for a particular function. Sketch and model alternative ideas

	Draw/sketch products to help analyse how products are made Think ahead about the order of their work and decide upon tools and materials To create labelled designs using technology – add notes to drawings to help explanations Decide which design idea to develop	Combine, model and draw to refine ideas. Record and recall ideas using annotated diagrams Draw plans that can be read and followed by someone else, ensuring they can independently produce a list of tools, equipment and materials they would need to carry this out successfully. Develop one idea in depth Record ideas using annotated diagrams including measurements. Give a report using correct technical vocabulary Justify and critically evaluate models and designs, using a fixed criteria (either designed as a group or independently).
	Select and use appropriate tools **Safely measure, mark out, cut, assemble and join with some accuracy.** **Apply understanding of how to strengthen, stiffen and reinforce structures** I can strengthen frames with diagonal struts.I can apply techniques I have learnt to strengthen structures and explore my own ideas. Use a glue gun with 1-1 supervision **Select from and use a wide range of tools, equipment, materials and components accurately** **Apply understanding of how to strengthen, stiffen and reinforce structures**	**According to their functional properties and aesthetic qualities, select from and use a wide range of tools, equipment, materials and components accurately to make high quality prototypes** **Construct more complex structures by applying range of strategies in order to solve real / relevant problems** **Making connections to real & relevant problems, apply understanding of wider range of mechanical systems (gears, pulleys, cams, levers and linkages)** I am learning to apply my understanding of how to strengthen, stiffen and reinforce more complex structures Cut strip materials accurately to 1mm. Cut slots in construction materials

		Accurately assemble and join materials using appropriate methods. Use a glue gun with close supervision to join different materials. Use a craft knife, cutting mat and safety ruler under 1-1 supervision. Create a model on the basis of accurate plans and make refinements as necessary.
Evaluate	**Evaluate own ideas and designs against given design criteria and consider the views of others to improve their work** **Investigate a range of existing products that address real / relevant problems, in a range of relevant contexts eg home, leisure, school** Identify the strengths and weaknesses of their design Discuss how well the finished product meets the design criteria and meets the needs of the user Understand how design and technology has helped the world to develop Consider and explain how the finished product can be improved	**Generate own design criteria and critique ideas and products against these** Investigate and evaluate products and images to collect ideas. Use design criteria to inform decisions about ways to proceed. Reflect on their work using their design criteria. Can they explain any changes they had to make and why? Understand how key events and key designers have helped shape the world. Investigate and evaluate products and images to collect ideas. Identify what does and does not work in their product and those made by others. How can they adapt this next time? Justify their decisions about materials and methods of construction and suggest alternatives. Give feedback with thought and care for how this feedback could be received.
Knowledge	Some frame structures are used to protect things – a roof can be a	Layering and stacking makes structures stronger.

	frame structure – or to hold things, such as a milk carton or egg box. They need to be strong and stable and different materials can be added to help reinforce them • Reinforce - to make something stronger • Shell Structures - are structures with a solid outer shell  	A linkage is an assembly of systems connected to manage forces and movement. This supports a product by allowing a range of movement that is realistic in representation. Different equipment is used to cut, shape and join materials are required based on the properties of materials 

Mechanisms		
	Year 1	**Year 2**
Product	**Toys**	**Vehicles**
Research	Research products that already exist	**Explore and evaluate a range of existing products**
Design	**Design simple products that work and look appealing** Explain what they are making and what materials they are using. Talk about products that already exist Describe their models and drawings of ideas and intentions. Describing what they need to do next. I can create a simple design for my product. I can use pictures and words to describe what I want to do. • Design - A plan for the construction of an object or system that has a purpose. • Design Criteria - A list of goals which the product must meet in order to be successful.	**Design products for others and themselves that are purposeful, functional and appealing** **Generate, develop, model and communicate ideas through talking, drawing, templates and ICT** I can design useful, pleasing products for myself and other users designed on a design brief. I can generate develop , model and communicate my ideas through talking drawing templates mock ups and IT Compare products that already exist.

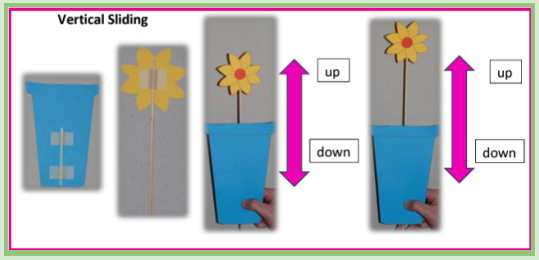
Make	**Explore simple mechanisms** **Use a range of tools and equipment to perform practical tasks eg cut, shape, join and finish** Uses simple tools and techniques safely (e.g. scissors) Choose resources independently for their chosen activity. Use tape or glue to join pieces together. Adapt work where necessary. Follow verbal instructions See glue gun used by adults. To build structures, exploring how they can be made stronger, stiffer and more stable. To select from and use a range of tools and equipment to perform practical tasks. eg. cutting, shaping, joining, finishing. To experiment with different materials to design and make products in 2 and 3 dimensions. Make structures by joining simple objects together.	**Select from and use a wide range of materials and components (according to their characteristics) eg construction, textiles and ingredients** **Select from and use a wide range of tools and equipment to perform practical tasks eg cut, shape, join and finish** **Explore and use mechanisms eg levers, wheels and axles** Make vehicles with construction kits which contain free running wheels Use a range of materials to create models with wheels and axles Investigate joinings: temporary, fixed and moving Join appropriately for different materials and situations See glue-gun used by an adult To safely measure, mark out and cut and shape materials and components using a range of tools

	Cut out shapes, which have been created. Cut along lines, straight and curved Fold, tear, and fold paper and card. • Mock up - When you test out your design by making it up.	
Evaluate	**Explore existing products eg home, school** **Discuss own ideas and designs** Discuss how their finished products meet their design criteria. Identify the good and bad points of their designs. Talk about changes made during the making process. Say what they like and don't like about items they have made and attempt to say why. A product must be appealing	**Evaluate own ideas and designs against given design criteria** **Explore and evaluate a range of existing products eg home, school** Talk about their designs as they develop and identify good and bad points Discuss how closely their finished product meets their design criteria
Knowledge	Toys need to be carefully decorated to make them appealing. Target audience means to consider who the product is made for. When making a hole in a product you need a sharp point, like a	Vehicles move using a mechanism called 'wheel and axle'. An axle is a rod and a wheel is a circular object. Other objects use the same mechanism to move, for example a Ferris Wheel. Materials can join together differently. • Axle: a rod on which one or more wheels can rotate, either

pencil and some plasticine or blu tack to press the point into.

- Mechanical - Something that can move.
- Mechanism - An collection of parts that work together to create a movement
- Input - The energy that is used to start something working.
- Output - The motion that happens as a result of the Input.
- Sliders - A mechanism for making movements from side to side or up and down.
- Slot - a hole through which a lever is place into to enable the part to move
- Rigid - Stiff and not able to move easily
- Pivot - The point at which something turns.

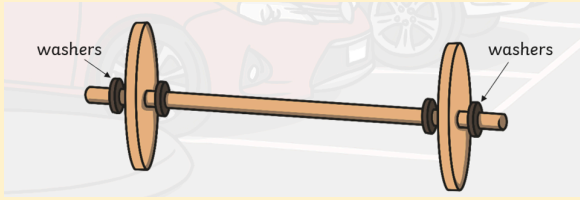
When you assemble a mechanism you need to use the appropriate fasteners for the job. This might be a split pin, tape, string or glue.

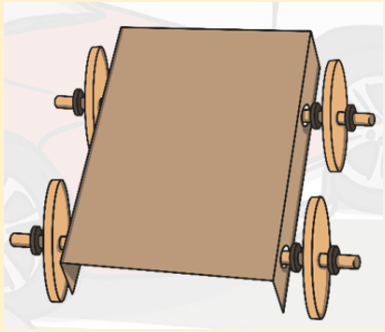


There are four types of movement:

freely or be fixed to and turn with the axle.

- Axle holder: the component through which an axle fits and rotates.
- Chassis: the frame or base on which a vehicle is built.
- Friction: resistance which is encountered when two things rub together.
- Dowel: wooden rods used for making axles to hold wheels.





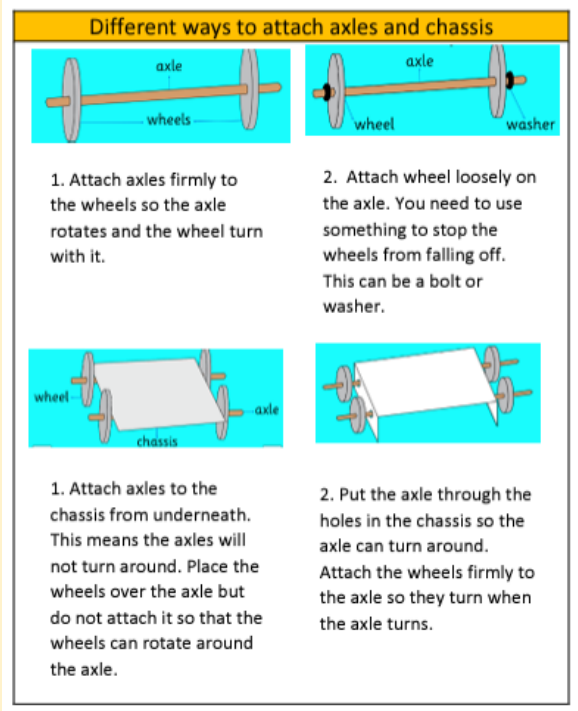
Linear motion
Movement in a straight line in any one direction.

Reciprocating motion
Movement in a straight line, back and forth, in any direction.

Rotary motion
Movement in a circular motion.

Oscillating motion
Movement in a curve, back and forth.

Lonnie G Johnson (DOB: 6/10/1949) is an American inventor, aerospace engineer, and entrepreneur, best known for inventing the bestselling Super Soaker water gun in 1989.

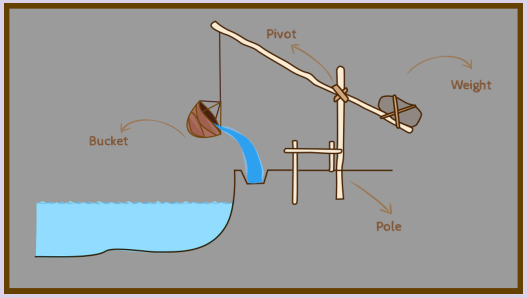


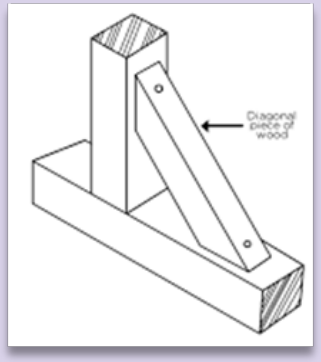
Mechanisms			
	Year 3	**Year 4**	**Year 5**

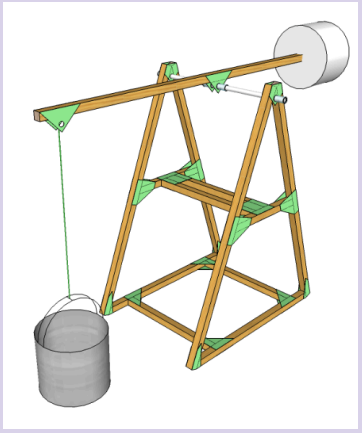
Product	Shaduf	Roman Catapult https://www.instructables.com/How-to-make-a-model-Roman-catapult/	Space Orrery
Research	**Use research to inform design**	**Use research to inform design and develop design criteria**	**Use research to inform design and generate own design criteria**
Design	**Communicate ideas using different strategies eg discussion, sketch** **Take risks to become innovative and resourceful** Develop more than one design or an adaptation of an initial design Draw/sketch products to help analyse how products are made Think ahead about the order of their work and decide upon tools and materials Propose realistic suggestions of how they can achieve their design ideas To create labelled designs using technology – add notes to drawings to help explanations Decide which design idea to develop	Draw/sketch products to help analyse how products are made **Communicate, generate and develop ideas using a range of strategies eg prototypes, pattern pieces** **Take risks to become innovative and resourceful** Think ahead about the order of their work and decide on tools and materials Plan a sequence of actions to make a product	**Communicate, generate and develop ideas, drawing on other disciplines eg science, maths, computing** **Confidently take calculated risks to become innovative, resourceful and enterprising** **Communicate, generate, develop and model ideas using a range of strategies eg computer-aided-design, cross-sectional and exploded diagrams** Investigate products and images to collect ideas Record ideas using annotated diagrams Draw plans which can be read or followed by someone else
Make	**Identify range of mechanical systems and how they work (gears, pulleys, cams, levers and linkages)** Select and use appropriate tools	**Identify range of mechanical systems and how they work (gears, pulleys, cams, levers and linkages)** **Select from and use a wider range of tools, equipment, materials and**	**Construct more complex structures by applying range of strategies in order to solve real / relevant problems** **Drawing on disciplines & making connections to wider subject areas, apply**

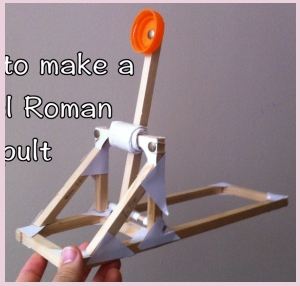
	Make structures more stable by giving them a wide base Use a glue gun with 1-1 supervision Cut slots in construction materials Use linkages and other mechanisms to make movement larger or more varied Develop structures to strengthen their products Use a glue gun with 1-1 supervision	**components accurately to make prototypes** **Apply understanding of how to strengthen, stiffen in order to reinforce more complex structures** Create a lever Select and use appropriate tool and equipment Use a wide range of methods to strengthen, stiffen and reinforce complex structures. Build a more complex 3D structure and apply knowledge of strengthening techniques to make them stronger or more stabl	**understanding of computing to program, monitor and control products** **Making connections to real & relevant problems, apply understanding of wider range of mechanical systems (gears, pulleys, cams, levers and linkages). According to their functional properties and aesthetic qualities, select from and use a wide range of tools, equipment, materials and components accurately to make high quality prototypes** Cut accurately and safely to a marked line with the appropriate tool Make prototypes Join and combine materials with temporary, fixed or moving joins
Evaluate	**Evaluate own ideas and designs against given design criteria and consider the views of others to improve their work** Identify the strengths and weaknesses of their design Discuss how well the finished product meets the design criteria and meets the needs of the user Understand how design and technology has helped the world to develop	**Evaluate own and others' work suggesting improvements and consider the views of others to improve their work** Decide which design idea to develop and explain why this choice has been made Identify the strengths and weaknesses of their own and others' design and suggest improvements	**Generate own design criteria and evaluate ideas and products against these** **Investigate and analyse a range of existing products that address real / relevant problems, in a range of relevant contexts** **Understand how key events and individuals in D&T helped to shape the world** Use the design criteria to inform the decisions about ways to proceed

	Consider and explain how the finished product can be improved		Justify their decisions about materials and methods of construction
Knowledge	A 'Shaduf' is a hand-operated machine used to transport water from a lower level to a higher one. It was used by the Ancient Egyptians for irrigation - to help water crops. Irrigate/Irrigation the practice of supplying land with water so that crops and plants will grow. A shaduf consists of a long suspended rod with a bucket at one end and a weight at the other end A lever is a simple mechanism consisting of a beam or rigid rod at a fixed hinge. Diagonal struts make a strong structure. A rounded outer structure is particularly strong because it spreads forces across the whole structure. Lever - a rigid bar resting on a pivot, used to move a heavy or firmly fixed load with one end when pressure is applied to the other. Pivot - the central point, pin, or shaft on which a mechanism turns or oscillates. Oscillate - move or swing back and forth in a regular rhythm. Counterweight - a weight that, by exerting an opposite force, provides balance and stability to a mechanical system. Its purpose is to make lifting the load more efficient, which saves energy and is less taxing on the lifting machine.	A catapult is a ballistic device used to launch a projectile a great distance. A catapult works in a similar way to a lever. A lever is a rigid bar resting on a fulcrum (to pivot). A saw is used to cut wood. A joint is where two or more parts of a structure are fixed. Triangles can be added to joints to make them stronger. Using cardboard on the corners will strengthen the structure. Using diagonal struts will also strengthen it. A catapult is a weapon - it was used by the Romans.	A mechanism is a system or structure of moving parts. Mechanical system - a set of related parts or components used to create movement. Mechanisms, including levers, pulleys and gears, allow us to use a smaller force to have a greater effect and change motion. An orrery is a mechanical model of the Solar System. It shows the relative positions and motions of the planets. The planets rotate around the sun as they would in the solar system. The first orrery is thought to date from around 150BC!


Pivot
Weight
Bucket
Pole


Diagonal piece of wood

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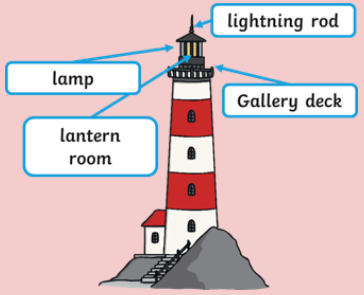
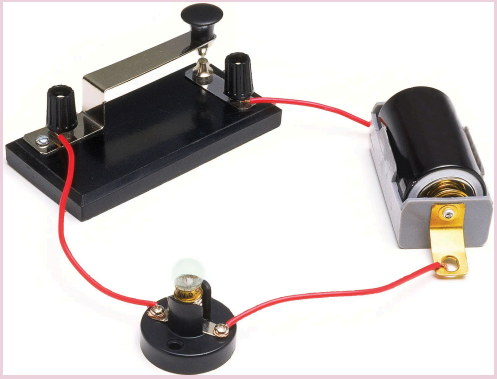
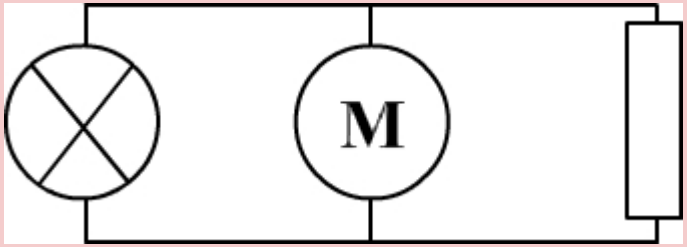
Electrical Systems		
	Year 4	**Year 6**
Product	**Torches**	**Lighthouses**
Research	**Use research to inform design and develop design criteria** **Communicate, generate and develop ideas using a range of strategies eg prototypes, pattern pieces**	**Use research to inform innovative design and generate own design criteria**
Design	**Apply understanding of how to strengthen, stiffen in order to reinforce more complex structures** **Take risks to become innovative and resourceful** Develop more than one design or an adaptation of an initial design Draw/sketch products to help analyse how products are made Think ahead about the order of their work and decide upon tools and materials Propose realistic suggestions of how they can achieve their design ideas To create labelled designs using technology – add notes to drawings to help explanations Decide which design idea to develop	**Communicate, generate and develop ideas, drawing on other disciplines eg science, maths, computing** Investigate products and images to collect ideas Record ideas using annotated diagrams Draw plans which can be read or followed by someone else

Make	**Select from and use a wider range of tools, equipment, materials and components accurately to make prototypes** Make structures more stable by giving them a wide base Use a glue gun with 1-1 supervision Cut slots in construction materials Use linkages and other mechanisms to make movement larger or more varied Develop structures to strengthen their products Use a glue gun with 1-1 supervision	**Making connections to real & relevant problems, apply understanding of electrical systems (series circuits, switches, bulbs and motors)** **According to their functional properties and aesthetic qualities, select from and use a wide range of tools, equipment, materials and components accurately to make high quality prototypes** **Drawing on disciplines & making connections to wider subject areas, apply understanding of computing to program, monitor and control products** Cut accurately and safely to a marked line with the appropriate tool Join and combine materials with temporary, fixed or moving joins
Evaluate	**Evaluate own and others' work suggesting improvements and consider the views of others to improve their work** Identify the strengths and weaknesses of their design Discuss how well the finished product meets the design criteria and meets the needs of the user Understand how design and technology has helped the world to develop Consider and explain how the finished product can be improved	**Explain and understand how key events and individuals in D&T helped to shape the world** **Generate own design criteria and critique ideas and products against these** Use the design criteria to inform the decisions about ways to proceed Justify their decisions about materials and methods of construction

Knowledge	A torch is a portable light source powered by electricity. Torches are designed for different users and purposes (e.g. camping, emergencies). Torches always include: • A casing (to hold everything). • A light source (bulb/LED). • A power source (battery). • A switch (to turn it on/off). • Sometimes a reflector (to direct the light). 3D shapes can be built from nets to form the casing. These are made from 2D 'faces' and flaps. The inside of the 3D shape needs to be measured carefully to ensure it can contain a circuit. A scale model is a physical model which is geometrically similar to an object (known as the prototype). An electrical circuit needs to be a complete circuit with no gaps. The power travels from the battery along the wires to the bulb. Safety: Never connect batteries the wrong way round; always check for loose wires.	• Cylinder –A tube shape • Stable –If a structure is stable it won't fall over or collapse. • Structure – Something that is built and made of several parts A lighthouse structure is a cylinder shape that is wider at the bottom. This makes it more stable when waves are crashing against it. It needs a lamp to help sailors spot dangerous rocks. Different types of tools are used to cut and shape specific materials accurately depending on their properties. To scale an object to a smaller size, you divide each dimension by the required scale factor.  An exploded diagram can be drawn to show each component in a product • Parallel Circuit - a circuit where the current flows through two or more paths • Component - one of several parts of which something is made e.g. bulb, buzzer, wire • LED - is a Light Emitting Diode, which lights up as electricity passes through it

		• Filament - a conducting wire, forming part of an electric bulb, made incandescent by an electric current • Modify - changing something to improve or fix it 

Textiles					
	Reception	**Year 2**	**Year 3**	**Year 4**	**Year 5 - Spring 1**
Product	**Fine motor skill development**	**Puppets**	**Weaving**	**Tudor Embroidery**	**Mittens**
Research			**Use research to inform design**	**Use research to inform design and develop design criteria**	**Use research to inform design and generate own design criteria**
Design		**Design products for others and themselves that are purposeful, functional and appealing** **Generate, develop, model**	**Communicate ideas using different strategies eg discussion, sketch**	**Communicate, generate and develop ideas using a range of strategies eg prototypes, pattern pieces**	**Communicate, generate and develop ideas, drawing on other disciplines eg science, maths, computing**

		and communicate ideas through talking, drawing, templates and ICT I can create a simple design for my product. I can use pictures and words to describe what I want to do.		**Use research to inform design and develop design criteria** **Take risks to become innovative and resourceful**	**Confidently take calculated risks to become innovative, resourceful and enterprising**
Make	Explores the textures of different fabrics. Begins to build a vocabulary to describe textures. E.g soft, rough, smooth. Explore, group and sort textiles and colour etc. Begin to use scissors to cut snips in fabric Gross motor weaving with a range of materials e.g string, ribbon, tissue paper on posts, fencing etc Develop threading, hand-eye coordination, threading large beads, pasta	**Select from and use a wide range of materials and components (according to their characteristics) eg construction, textiles and ingredients** **Select from and use a wide range of tools and equipment to perform practical tasks eg cut, shape, join and finish** Cut out shapes which have been created by drawing round a template onto the fabric Join fabrics by using running stitch, glue, staples, over sewing, tape Decorate fabrics with buttons, beads, sequins,	**Select from and use a wide range of tools, equipment, materials and components accurately**	**Select from and use a wider range of tools, equipment, materials and components accurately to make prototypes** Understand seam allowance Join fabrics using running stitch, over sewing, back stitch Explore fastenings and recreate some e.g. sew on buttons and make loops Use appropriate decoration techniques e.g. appliqué(glued or simple stitches) Colour fabrics using a range of techniques e.g.	**According to their functional properties and aesthetic qualities, select from and use a wide range of tools, equipment, materials and components accurately to make high quality prototypes** Create 3D textiles products using pattern pieces and seam allowance Decorate textiles appropriately often before joining components Join fabrics using over sewing, back stitch, blanket stitch or machine stitching Combine fabrics to create more useful properties Cut strip materials accurately to 1mm

		braids, ribbons Develop techniques to join fabrics and apply decoration such as running or over stitch.		fabric paints, printing, painting Select and use appropriate tools and equipment	Join materials using appropriate methods
Evaluate		**Evaluate own ideas and designs against given design criteria** **Explore and evaluate a range of existing products eg home, school**	**Evaluate own ideas and designs against given design criteria and consider the views of others to improve their work**	**Evaluate own and others' work suggesting improvements and consider the views of others to improve their work**	**Generate own design criteria and evaluate ideas and products against these** **Investigate and analyse a range of existing products that address real / relevant problems, in a range of relevant contexts**
Knowledge	Fabrics are materials we use for a lot for things like clothes, furniture, curtains and blankets. Fabrics are produced by weaving materials like cotton, nylon, wool or silk together to create a large piece of	Thread - a long, thin strand of cotton, nylon, or other fibres used in sewing or weaving. Needle - a tool used to sew. Sew - to join pieces of fabric with stitches	Textiles are all around us. Our clothes, carpets, furniture, cushions, curtains, towels. We use fabrics and textiles everyday. Weaving is the basis structure for most fabrics. You can weave almost anything to make interesting textures and	Embroidery is a way of decorating fabric using a needle and thread. 	

material, we then shape this material to make the things we need.

Fabrics can be:

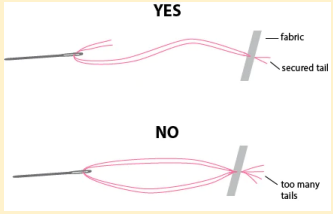
You should choose your fabric carefully for your product.

Threading means to pass (a long, thin object or piece of material) through something and into the required position for use.

Mock Up - a practice which allows you to try out ideas using cheaper materials and temporary joints.

To thread a needle you need to:

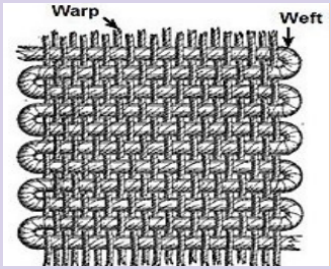
1. Hold the flat end of the needle threader with one hand, and the needle with the other.
2. Push the wire loop through the head of the needle.
3. Keep the loop in the eye of the needle, and push the end of the thread through the wire loop.
4. Pull the loop out of the eye of the needle, and it takes the thread with it.



You need to knot the opposite end of the thread so that it is secure.

textiles.

Weaving is an ancient art/craft where two threads are interlinked to form a fabric or textile. One set of threads are held tight on a frame vertically; these are called the warp. The weft runs across the warp threads moving over and under the weft threads to create the fabric or textile.



- Weaving The interlacing of different materials to create a pattern.
- Weft The material that you are threading with.
- To thread The act of lacing something over and under a loom.
- Plain weave A style of weaving in which the weft alternates over and under the loom.

Binca: A stiff, mesh fabric designed for embroidery for beginners

Felt: A thick type of fabric made by pressing fibres together

Embroidery thread: A soft thread used for sewing and embroidery

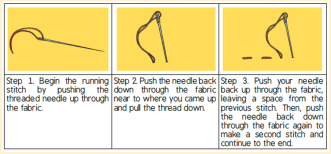
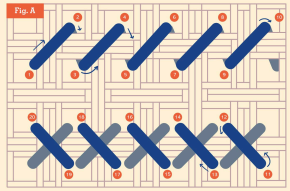
Needle: A very fine slender piece of polished metal with a point at one end and a hole or eye for thread at the other, used in sewing.

Stitch: A loop of thread made with a threaded needle

Appliqué: Ornamental needlework in which pieces of fabric are sewn or stuck on to a larger piece to form a picture or pattern.

Fray - to unravel or become worn at the edge

Applique - to attach a decorative fabric item onto another piece of fabric by glueing and/or sewing.

		Running stitch is a way of joining material using thread. It consists of a line of small stitches that run back and forth through the material without overlapping.  Decorations can be added to material with glue and they add detail to show what the puppet is. Glove puppet - fits over your hand and you can use your fingers to operate its head and arms	• Direction The way in which something travels or moves. • Loom The material we weave our weft through	 	

Cooking and Nutrition					
	Reception	**Year 1**	**Year 3**	**Year 5 - Summer 1**	**Year 6 - Spring 2**
Product		**Breakfast for an Olympian**	**Sandwiches**	**Salad Bar**	**Vegetable Stew**
Skills	Eats a healthy range of foods and understands the need for variety in food. Use basic tools to cut, mix and shape. E.g cutters and whisk. Work safely and hygienically. Begins to develop a vocabulary of food and tools needed when cooking.	**Begin to understand where food comes from** **Prepare simple dishes using knowledge of healthy food.** Name the tools they are using Cut and peel a range of ingredients Talk about products that already exist Develop a food vocabulary using taste, smell, texture and feels Use simple tools with help to prepare food safely and hygienically. Follow a simple recipe	**Apply principles of a healthy, varied diet when preparing variety of savoury dishes** **Apply understanding of seasonality and its link to ingredients** Join and combine a range of ingredients e.g. snack foods Analyse a range of products that already exist Analyse the taste, texture, smell and appearance of a range of foods Make healthy eating choices from and understanding of a balanced diet Work safely and	**Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques** Work safely and hygienically Prepare food products taking into account the properties of ingredients and sensory characteristics Select and prepare foods for a particular purpose Show awareness of a healthy diet from an understanding of a balanced diet Understand the seasonality of foods	**Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques** **Know where and how a variety of ingredients are grown, reared, caught and processed and its impact on meal design** **Develop crucial life skill of feeding themselves and others affordably and well** Join and combine food ingredients appropriately e.g. beating, rubbing in. Taste a range of ingredients, food items to develop a sensory food vocabulary for use when designing.

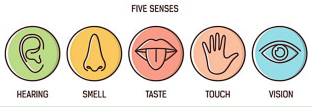
		(imperative verbs)	hygienically	Understand where food comes from Measure and weigh ingredients appropriately	Understand where food comes from. Understand the seasonality of foods. Work safely and hygienically and explain the importance of this. Make quality products Prepare food products taking into account the properties of ingredients and sensory characteristics. Work out ratios within these recipes. Select and prepare foods for a particular purpose.

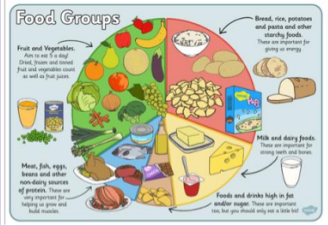
Knowledge	You have to wash your hands before handling or preparing food.  	Fruits come from the flowering part of a plant and contain seeds. Some fruit is grown here in the UK and you can even find some growing wild. Fruit needs a lot of sun to grow and ripen so lots of the fruit you eat is grown in warmer countries. Some foods that we call vegetables are actually fruits. The fruit of a plant is the part that contains the seeds. So foods like tomatoes, cucumbers and peppers are fruits not vegetables because they contain seeds. You should eat a minimum of five portions of fruit and vegetables every day. Oats are carbohydrates and they give you energy over a long period of time. Milk is dairy and this is a good source of calcium.	• Grown: when something is cultivated from a seed to be processed and eaten • Reared: the breeding and raising of animals to use as food • Caught: method by which some animals are captured to be processed for eating • Processed: food that is altered to change the properties of that food. • Fresh: food which has not been cooked or processed • Food groups - a collection of foods that have similar nutritional properties. • Carbohydrates - a food group that gives us energy that is used by the body • Protein - a food group that helps us grow and build muscle • Dairy - a food group that is important for strong teeth and bones • Seasonality- food that you may find during a particular season	 The Bridge  The Claw  The Fork Secure It is important to measure out the correct amount of ingredients using scales. The scale must start at zero. Ingredients can be combined to make a dish. Some of these ingredients may need to be cooked, some can be left raw. You music consider the properties of the ingredient and your final	It is crucial to take into account the properties of ingredients, seasonality and sensory characteristics when choosing ingredients for a stew. The amount of ingredients will depend on the final quantity but the ratio of ingredients needs to stay the same. Varying ingredients might change the taste and texture of a final product. By combining ingredients we can make a nutritious meal. Nutritional value helps us understand how healthy a food is.

Mixing: putting ingredients together using a spoon, whisk or blender.

Food processing equipment			
Utensil	food	effect	mouth feel
juicer	orange	makes juice	liquid
peeler	apple	unpeeled apple	crunchy
knife	carrot	thin rings	crispy hard

Fruit can be added to cereal or porridge to make a tasty, healthy breakfast.





spreading

1. First decide what type of filling you would like and check to see if there is some available.

2. Next take two slices of bread and butter each of them on one side only.

3. Put your filling on one slice of bread, butter side up. You may choose two fillings.

produce when making decisions about how each ingredient should be prepared – grated, chopped, left whole, washed, cooked etc

Knowledge Vocabulary		
Blender		A machine that mixes ingredients together into a smooth liquid.
Carton		A container made out of card which holds liquids such as milk and juice.
Fruit		The part of a plant that contains seeds.
Ingredients		The foods that make up a recipe e.g., eggs and flour are used to make a cake.
Peel (verb)		To remove the tough skin off fruits and vegetables.
Peeler		A tool that helps you to remove the skin from fruits and vegetables.
Recipe		A set of instructions for making a food item or dish.
Slice (verb)		To cut food into thin pieces using a knife.
Vegetables		Parts of a plant that can be eaten. The parts may be the leaves, roots or stem. Vegetables do not contain seeds.

4. Place the other piece of bread, butter side down, on top of the filling.

5. Now cut your sandwich carefully with a knife.

6. Now sit down and enjoy your sandwich.

7. Finally, clear away the things you have been using.

When choosing sandwich fillings you should ensure that they are healthy, balanced and in season.


Knife Skills
for Kids
Counter Height
It's important to be at the correct height in relation to the counter when chopping. Stand on a sturdy stool if you need a boost up.
Cutting Board
If your cutting board doesn't stay in place, put a damp kitchen towel underneath.
Grip
Grip the handle of the knife with your writing hand. Hold the knife with a bicycle grip (here your hand looks if holding handlebars). Your knuckles should face up. Place your thumb and pointer finger where the blade of the knife and the handle meet, then wrap your fingers around the handle. Do not place your pointer finger on top of the blade.
Claw
To hold food in place, curl your fingers under like a claw, making sure to tuck your thumb in. By curling your fingers under, you protect them in case the knife slips.
Eyes on knife
Make sure your eyes are always watching the knife as it cuts through food. If your eyes wander, stop cutting.
Cutting
When cutting, pretend the tip of the knife is stuck to the cutting board. Move the blade in a rocking motion instead of picking the blade up off the board every time you make a cut. Use your knife to cut, not saw, through the food.
Lay food flat
When cutting round items, it's safer to cut in half lengthwise, lay them flatside down, then work with only a half at a time.
Coarsely Chop
To coarsely chop or cut into small pieces, place your hand flat on top of the knife, pushing down, as you rock the knife across the food.
create
kid's club