



Welbourn C of E Primary School

'Believe, Excite, Succeed, Together'

Design and Technology Long Term Plan 2020

	Autumn	Spring	Summer
Design and Technology POS	<p>EYFS The World-Technology</p> <ul style="list-style-type: none"> •To recognise a range of technology is used in places such as homes and schools. •Select and use technology for a particular purpose <p>Expressive arts and Design -Exploring and using media and materials</p> <ul style="list-style-type: none"> •Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function <p>Being imaginative</p> <ul style="list-style-type: none"> •Use what they have learnt about media and materials in original ways, thinking about uses and purposes. •Represent their own ideas, thoughts and feelings through design and technology. <p>Physical Development-Health and self-care</p> <ul style="list-style-type: none"> •Understand the importance of a healthy diet •Talk about ways to keep healthy and safe <p>Key Stage 1</p> <p>Design:</p> <ul style="list-style-type: none"> α design purposeful, functional, appealing products for themselves and other users based on design criteria α generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology <p>Make:</p> <ul style="list-style-type: none"> α select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] α select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics <p>Evaluate:</p>		

□ explore and evaluate a range of existing products
 □ evaluate their ideas and products against design criteria
Technical knowledge:
 □ build structures, exploring how they can be made stronger, stiffer and more stable
 □ explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.
Cooking and nutrition:
 □ use the basic principles of a healthy and varied diet to prepare dishes □ understand where food comes from.

Key objectives	Year Reception / Year 1	Year 2/3	Year Reception / Year 1	Year 2/3	Year Reception / Y1	Year 2/3
<p>Autumn 1 EYFS Physical Development and self-care</p> <p>Cooking and Nutrition</p> <p>Autumn 1 Key Stage 1 Make</p>	<p>Autumn 1 EYFS Skills</p> <ul style="list-style-type: none"> •Begin to develop a food vocabulary using taste, smell, texture and feel. •Explore familiar food products e.g. fruit and vegetables. •Stir, spread, knead and shape a range of food and ingredients. •Begin to work safely and hygienically •Explain what they are making and which materials they are using. <p>Key Stage 1-Soup</p> <ul style="list-style-type: none"> •Know how to use techniques such as 	<p>Autumn 1 Weaving</p> <p>Key Stage 1 -Make</p> <ul style="list-style-type: none"> □ select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] □ select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics 	<p>Spring 1 EYFS skills</p> <p>Roots to Food</p> <ul style="list-style-type: none"> •Measure and weigh food items, non-statutory measures e.g. spoons, cups. •Begin to develop a food vocabulary using taste, smell, texture and feel. •Explore familiar food products e.g. fruit and vegetables. •Stir, spread, knead and shape a range of food and ingredients. 	<p>Spring 1 Roots to Food Year 2</p> <ul style="list-style-type: none"> •Demonstrate how to prepare simple dishes safely and hygienically, without using a heat source. <p>Demonstrate how to use techniques such as cutting, peeling and grating</p> <ul style="list-style-type: none"> •Make dishes from other countries (if relevant to learning theme) <p>Develop understanding</p>	<p>Summer 1 EYFS Skills</p> <p>Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function</p> <p>Year 1- Design, Make, Evaluate</p> <p>Technical knowledge □ build structures, exploring how they can be made stronger, stiffer and more stable</p>	<p>Summer 1 Egyptians-pyramid building</p> <p>Year 2 skills</p> <ul style="list-style-type: none"> •Begin to develop their design ideas through discussion, observation, drawing and modelling. •Identify a purpose for what they intend to design and make. •Develop their ideas through talk and

	<p>cutting, peeling and grating.</p> <ul style="list-style-type: none"> • Know that everyone should eat at least five portions of fruit and vegetables every day (check current guidelines!) • Know how to prepare simple dishes safely and hygienically, <p>Weaving Key Stage 1 - Make a select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] a select from and use a wide range of materials and components, including construction materials, textiles</p>		<ul style="list-style-type: none"> • Begin to work safely and hygienically <p>Year 1 skills</p> <ul style="list-style-type: none"> • Know how to prepare simple dishes safely and hygienically, without using a heat source. • Know how to use techniques such as cutting, peeling and grating. • Measure and weigh food items using non-standard measures (e.g. spoons and cups) • Begin to understand that all food comes from plants or animals. 	<p>of where different foods come from (e.g. foods which are farmed, grown elsewhere (e.g. home) or caught) and also food from native to different countries.</p> <p>Year 3 Skills Understand how to prepare and cook a variety of dishes including experience of using a heat source.</p> <ul style="list-style-type: none"> • Begin to understand how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking. 	<ul style="list-style-type: none"> • Begin to develop their ideas through talk and simple drawings. • Communicate with others about how they want to construct their product • Explain how they intend to fix simple materials • Begin to assemble, join and combine materials and components together using a variety of temporary methods e.g. glues or masking tape. 	<p>drawings and label parts.</p> <p>Year 3 skills</p> <ul style="list-style-type: none"> • Learn about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products. (link to History). • When planning explain their choice of materials and components including function and aesthetics • Explain their choice of tools and equipment in relation to the skills and techniques they will be using • Start to think about their ideas as they make progress
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	and ingredients, according to their characteristics			<ul style="list-style-type: none"> • Know how a healthy diet is made up from a variety and balance of different food and drink <p>Be able to identify foods which come from the UK and other countries in the world</p>		<p>and be willing to change things if this helps them to improve their work.</p> <ul style="list-style-type: none"> • Select the most appropriate tools and techniques to use for a given task
<p>EYFS- Expressive arts and Design - Exploring and using media and materials</p> <p>Year 1-</p> <p>Developing, planning and communicating ideas</p> <p>Year 2/3- Developing, planning and communicating ideas</p>	<p>Autumn 2 EYFS Skills Christmas Decorations/crafts</p> <p>Selects appropriate resources and adapts work where necessary.</p> <p>Selects tools and techniques needed to shape, assemble and join materials they are using.</p> <ul style="list-style-type: none"> • Explain what they are making and which materials they are using. 	<p>Autumn 2 Clay work. Year 2</p> <ul style="list-style-type: none"> • Begin to develop their design ideas through discussion, observation, drawing and modelling. • Identify a purpose for what they intend to design and make. • Develop their ideas through talk and drawings and label parts. 	<p>Spring 2 No DT this half term</p>	<p>Spring 2 No DT this half term</p>	<p>Summer 2 EYFS Skills No DT</p>	<p>Summer 2 No DT</p>

<p>Working with tools, equipment, materials and components to make quality products</p> <p>Evaluating processes and products</p>	<ul style="list-style-type: none"> •Select materials from a limited range that will meet a simple design criteria e.g. shiny. <p>Year 1- Start to suggest ideas and explain what they are going to do.</p> <p>Communicate with others about how they want to construct their product</p> <p>Explain how they intend to fix simple materials</p>	<p>Begin to select tools and materials; use correct vocabulary to name and describe them.</p> <p>Learn to use hand tools safely and appropriately.</p> <p>Year 3</p> <p>Identify a purpose and establish criteria for a successful product.</p> <p>Know to make drawings with labels when designing.</p> <ul style="list-style-type: none"> •When planning explain their choice of materials and components including function and aesthetics. •Explain their choice of tools and equipment in relation to the skills and 				
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		<p>techniques they will be using.</p> <ul style="list-style-type: none"> •Start to evaluate their product against original design criteria e.g. how well it meets its intended purpose •Suggest some improvements and say what was good and not so good about their original design 				
Key vocabulary	See appendix					



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	Autumn	Spring	Summer
KS2 Design and Technology POS	<p>Design α use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups α generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</p> <p>Make α select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately α select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities</p> <p>Evaluate α investigate and analyse a range of existing products α evaluate their ideas and products against their own design criteria and consider the views of others to improve their work α understand how key events and individuals in design and technology have helped shape the world</p> <p>Technical knowledge α apply their understanding of how to strengthen, stiffen and reinforce more complex structures α understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] α understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] α apply their understanding of computing to program, monitor and control their products.</p> <p>Cooking and nutrition α understand and apply the principles of a healthy and varied diet α prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques</p>		

	<p>α understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.</p>					
Key objectives	Year 4/5/6 Autumn 1	Year 4/5/6 Autumn 2	Year 4/5/6 Spring 1	Year 4/5/6 Spring 2	Year 4/5/6 Summer 1	Year Y4/5/6 Summer 2
	<p>Weaving</p> <p>Y4: • Start to join and combine materials and components accurately in temporary and permanent ways.</p> <p>• Know how to measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques.</p> <p>Y5: • Select appropriate materials, tools and techniques e.g. cutting, shaping, joining and finishing, accurately.</p> <p>• Select from and use a wider range of materials and components,</p>	<p>Lanterns</p> <p>Y4: • Start to generate ideas, considering the purposes for which they are designing- link with Mathematics and Science.</p> <p>• Confidently make labelled drawings from different views showing specific features.</p> <p>• Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making, if the first attempts fail</p> <p>• When planning explain their choice of materials and components according to function and aesthetic.</p>				<p>Cooking</p> <p>Y4:</p> <p>• Understand that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world.</p> <p>• Understand how to prepare and cook a variety of predominantly savoury dishes including experience of using a heat source.</p> <p>• Know how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading,</p>

	<p>including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.</p> <p>•Use a range of tools and equipment expertly</p> <p>Y6; •Combine fabric to make a high quality product</p> <p>Accurately apply a range of finishing techniques, including those from art and design</p> <p>•Plan the order of their work, choosing appropriate materials, tools and techniques.</p>	<p>•Select a wider range of tools and techniques for making their product safely.</p> <p>•Know how to measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques.</p> <p>•Start to join and combine materials and components accurately in temporary and permanent ways.</p> <p>•Evaluate their work both during and at the end of the assignment.</p> <p>•Evaluate their products carrying out appropriate tests.</p> <p>Y5:</p> <p>•Start to generate, develop, model and communicate their ideas through discussion, annotated sketches, cross</p>				<p>kneading and baking.</p> <p>•Measure and weigh ingredients appropriately</p> <p>•Explain why a healthy diet is important</p> <p>•Know that to be active and healthy, food and drink are needed to provide energy for the body and identify healthy high energy foods)</p> <p>•Understand what to do to be hygienic and safe</p> <p>•Become familiar with some of the processes that foods go through to preserve them/make them more appealing</p>
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		<p>sectional and exploded diagrams, prototypes, pattern pieces and CAD.</p> <ul style="list-style-type: none"> •Begin to use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose. •With growing confidence apply a range of finishing techniques, including those from art and design •Draw up a specification for their design- link with Mathematics and Science. •Select appropriate materials, tools and techniques e.g. cutting, shaping, joining and finishing, accurately. •Select from and use a wider range of materials and 				<p>Y5:</p> <ul style="list-style-type: none"> •Understand that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world. •Begin to understand that seasons may affect the food available. •Understand how food is processed into ingredients that can be eaten or used in cooking. •Know how to prepare and cook a variety of predominantly savoury dishes including the use of a heat source •Demonstrate increasing
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		<p>components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.</p> <ul style="list-style-type: none"> •Start to evaluate a product against the original design specification and by carrying out tests. •Evaluate their work both during and at the end of the assignment. •Begin to seek evaluation from others. •Evaluate how the key designs of individuals in design and technology have helped shape the world. •Evaluate appearance and function against original criteria <p>Y6:</p>				<p>confidence in how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.</p> <ul style="list-style-type: none"> •Evaluate a meal and consider if they contribute towards a balanced diet •Begin to understand that different food and drink contain different substances (nutrients, water and fibre) that are needed for health •Explain what times of year particular foods are eaten in •Describe what to do to be hygienic and safe
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		<ul style="list-style-type: none"> •Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross sectional and exploded diagrams, prototypes, pattern pieces and CAD. <p>Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose.</p> <ul style="list-style-type: none"> •Accurately apply a range of finishing techniques, including those from art and design. •Draw up a specification for their design- link with Mathematics and Science. •Confidently select appropriate tools, materials, components and techniques and use them. 				<ul style="list-style-type: none"> •Use appropriate tools and equipment, weighing and measuring with scales. <p>Y6:</p> <ul style="list-style-type: none"> •Explain how ingredients were grown, reared and caught. •Understand that seasons may affect the food available. •Explain how food is processed into ingredients that can be eaten or used in cooking. •Know how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including the use of a heat source •Understand how to use a range of
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		<ul style="list-style-type: none"> •Use tools safely and accurately. •Assemble components to make working models. •Aim to make and to achieve a quality product •Evaluate their products, identifying strengths and areas for development, and carrying out appropriate tests. •Evaluate their work both during and at the end of the assignment. •Record their evaluations using drawings with labels. •Evaluate against their original criteria and suggest ways that their product could be improved. 				<p>techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.</p> <ul style="list-style-type: none"> •Know different food and drink contain different substances (nutrients, water and fibre) that are needed for health. •Use appropriate tools and equipment, weighing and measuring with scales. <p>Plan a healthy and affordable diet</p>
Key vocabulary	See appendix					

Design and Technology Vocabulary Glossary

Section 1 – Developing, planning and communicating ideas

aesthetics Appreciation of an object's appearance and whether it is pleasing.

annotated diagram Labelled drawing.

appearance The way that something looks.

artefact Any product that has been made, whether by pupils or commercially.

brittle Able to break easily.

card A flat piece of thick paper.

bar chart Type of graph with horizontal or vertical bars representing the values.

flow chart Diagram showing a sequence of operations, that is, the order in which they are carried out.

pie chart Type of graph which show the proportion of parts to the whole.

components list List of parts needed to make a product.

cross-section A view of an object, either imaginary or made by cutting through it.

customer survey A way of finding out what people think of a product or idea, often by a questionnaire.

design To create a plan or scheme either from new ideas or by presenting existing materials in a new way.

design brief A statement of what needs to be designed and/or made.

design process Process of designing from identifying a need, generating a design, planning and making it and

evaluating its performance.

design proposal A possible solution in response to a design brief.

disassembly Breaking down a product into its component parts, either in reality or in an imaginary way.

dismantle To take a product apart.

Drawing tools Key Stage 1 and 2 pupils should be familiar with using the following equipment:

crayons

marker pens

paints

pastels

pencils

pens

and with using the following tools:

compass Device for drawing circles.

protractor Measuring tool showing angles.

stencil Shaped template to draw inside for repeating patterns.

engineering Process of applying scientific principles to designing and making products and solving problems.

enlarged view To show greater detail by making the original larger.

equipment The tools and materials used to carry out a task.

ergonomics Study of how artefacts and environments can be matched to the needs of people.

evaluation Assessment of how an artefact functions compared with its specification.

exploded drawing A 'blown-apart' drawing showing how the components are joined to make a product.

final design Chosen solution from a selection of design ideas.

flexible Able to be bent without breaking.

fold To double material such as paper against itself in the following ways:

mountain-fold As an upside-down 'V' shape.

fan fold V-folds radiating from a point.

U-fold As a rectangular 'V' shape.

V-fold Also known as a 'valley' fold.

function The intended use of any product.

graphics Use of pictures and words to communicate ideas and information.

pattern A template used as a guide to cutting out shapes in paper, wood, plastic, metal or fabric.

performance The way in which a product carries out the task which it is designed to do.

perspective drawing Form of drawing, with vanishing points, to show depth and distance.

pictogram Symbol, often used to record statistics, such as in a survey of favourite biscuits.

plan A view of a building or an object, seen from looking on it from above.

planning Setting out an aim and the ways and time by which it might be achieved.

portrait Using a piece of paper with its narrow edge at the bottom, as in a portrait.

primary source Original source of information as opposed to information collected from published materials

product analysis A way of investigating and describing products in order to develop new designs.

proportion The share of a whole, as in a pie chart which shows how the different parts of something make up its whole.

prototype A model which is made to test whether a design will work.

questionnaire A survey designed to find out people's feelings or likes and dislikes.

recipe A list of ingredients and instructions for preparing food.

research In design and technology, the part of the design process which involves finding information.

rigid Not flexible.

risk assessment Identifying the degree of probability of a hazard or danger and acting accordingly.

secondary source Information collected from non-original sources, e.g. published material, the Internet, CD-ROM.

section drawing Drawing which shows an object as though it has been cut through.

sequential diagram Series of drawings to show how a product is made.

shape Form of an object produced by its outline.

sketch A rough drawing as opposed to a plan or finished drawing.

specification Describes what a product has to do.

stable Firmly fixed, not easily swayed or moved.

style Used in visual judgements e.g. hi-tech, traditional, outdoor.

synthetic Made or manufactured, rather than a natural product.

system A series of components or products organised to perform a task.

taste test Systematic recording of views on a food sample.

technology The use of scientific, material and human resources to meet the needs of society.

template A shape drawn to assist in cutting out.

tessellations Shapes which interlock together and form regular patterns.

texture Surface quality of being, for example, hard, soft, smooth or rough.

three-dimensional Having height, width and length.

translucent A material which when looked through, allows light to pass through but is not clear.

transparent A material through which you can see, such as glass.

two-dimensional Having height and width only, a flat representation.

work plan Plan which shows a sequence of work and the time each stage might take up.

working drawing Drawing which contains the information needed to make a product but is constantly updated as changes are made.

Section 2- Materials and components

abrasive Any material which can be used to wear away the surface of another, such as glasspaper.

acrylic A hard, rigid and shiny plastic material available in transparent, translucent and opaque forms and in bright colours; full name: polymethylmethacrylate.

adhesive Substance which holds materials together.

aluminium Light, soft metal and a good conductor, for example, baking foil; used for making switches.

artstraws Bendable straws which can interlock; useful for frameworks.

axle Rod on which one or more wheels can turn.

balsa Lightweight wood useful for model-making.

battery Two or more cells which supply electrical current.

battery snaps Clips which connect on batteries or battery holders.

beam Long piece of timber or metal, supported at both ends.

binca Textile with regular weave, useful for embroidery.

bolt A metal fastener, usually used with a nut.

brass Alloy of copper and zinc; good conductor.

bulb Electrically powered light with a glowing filament.

bulb holder Component which houses a bulb.

buzzer Device which emits a noise when current is supplied.

calico Coarse, heavyweight fabric usually used for producing prototype garments.

cam Specially shaped wheel, or one with a hole off centre; when it rotates, anything resting on its edge will bob up and down, as in a pull-along toy.

chassis Base frame of a vehicle.

circuit Complete path through which an electrical current passes.

clay Mouldable modelling material.

cog Single tooth or projection on the rim of a gear wheel.

Correx Brand name for corriflute.

corriflute Corrugated plastic sheet.

cotton Lightweight natural fabric or thread for sewing.

dowel Wood cut to a cylindrical shape, available in various widths.

drive belt The belt which connects and transfers movement between two pulleys.

dye Natural or synthetic substance used to colour fabric.

emery cloth Abrasive sheet, used on metals in preference to glasspaper.

fat A nutrient found in plant or animal foods which provides energy; the solid form of oil.

fibreboard Board made from compressed wood fibres (see also MDF).

fibres Threads which can be spun or woven into a fabric.

flux Chemical used to clean a joint before it is soldered.

foil Thin sheet of metal, such as aluminium baking foil.

follower Device which rests on and follows the movement of the cam.

gear A wheel with teeth around its edge, usually fixed to a shaft.

gear train Gear wheels whose teeth mesh together so that when one turns so do the others.

glasspaper Abrasive sheet.

glue Adhesive.

hardboard Thin board composed of wood fibre, usually smooth on one side and textured on the other.

hardwood Wood from slow-growing deciduous trees such as oak and beech.

hessian Loosely woven coarse fabric.

hinge Movable joint.

kilojoule Unit of measurement of the energy value of foods.

laminated A thin layer of material, such as wood, plastic or transparent film.

lollipop sticks Strong, pre-cut sticks useful in frame construction.

magnet A product containing iron, which will attract other ferrous metals.

masking tape Low tack adhesive tape

MDF Medium density fibreboard - a board made from wood fibre, smooth on both sides and available in various thicknesses.

membrane switch Thin switch made up from thin plastic layers or membranes of card or baking foil.

mesh The open space between woven threads.

metal A natural element found in the Earth's crust, such as iron or copper.

mouldable material A material which can be shaped, such as plasticine, clay or Plastazote.

nail A fastener made from steel wire.

nut A hexagonal ring with an inner thread into which a bolt screws.

paper clip Light, bendable metal fastener for paper.

parallel circuit A circuit which has a number of possible alternative pathways which may be switched independently e.g. house lighting.

Perspex Brand name for acrylic.

pine A softwood.

plastic A group of synthetic materials which includes acrylic, nylon and polystyrene; 'plastic' means able to be shaped without cracking or breaking.

plasticine Mouldable substance used for modelling.

play dough Mouldable material made largely from flour; can be baked.

plywood Manufactured board made by gluing layers of thin wood together.

polycotton Fabric made of a mix of polyester and cotton.

polystyrene Lightweight thermoplastic material, used for model kits, disposable cutlery and as an expanded foam for cups and packaging.

pressure pad A switch which is activated when it is pressed, as in a doormat which rings a bell when it is stepped on.

propeller A shaft with blades.

pulley A grooved wheel over which a rope can run.

PVA Polyvinyl Acetate: a white, ready-mixed glue, used particularly for wood.

ratchet Toothed wheel which a pawl fits in, ensuring that motion is in one direction only.

reclaimed materials Materials such as packaging, which have served their original purpose, or off-cuts which would otherwise be wasted.

reed switch A switch which is operated by a magnet.

resistor A component which restricts the flow of electric current in a circuit.

rivet Fastener for joining sheet metals.

rust Corrosion which affects iron materials.

sandpaper Common term for glasspaper.

screw Fastener made from steel or brass, tapered for wood or used with nuts.

self-tapping screw Fastener made from hardened steel which cuts its own thread when inserted in sheet metal or plastic.

Sellotape Brand name for adhesive tape.

shaft A rod which transmits motion.

silk A natural fibre spun from the silken threads of the silkworm.

slide switch A switch which operates when a slider is pushed.

softwood Generally wood from coniferous trees, such as pine.

solder Alloy of lead and tin, used to join metals together.

spacer A component placed between two parts, such as between a wheel and the side of a buggy.

spring Something that returns to its original shape after it has been stretched; coiled metal wire and elastic bands are examples.

sugar A type of carbohydrate, often used in cooking to sweeten food.

switch A device which makes or breaks a circuit.

terminal block A block in which electrical wires can be joined together.

textile A woven material.

thermoplastic A plastic material which can be shaped when it is heated.

thermosetting material A plastic material which cannot be shaped even when it is heated.

tilt switch A switch which operates when tilted at an angle.

timber Wood, often in bulk, supplied in usable forms and sizes.

toggle switch A switch which operates when a lever is pressed.

washer A component which distributes the load applied on it, as in underneath a nut or screw.

wheel Circular frame or disc which rotates about a centre, enabling linear (straight-line) movement from circular motion.

winch Device to wind string or rope on to a wheel.

wire Metal drawn out into a thread or rod of varying thickness.

wood Material trees are made of.

wool Natural thread spun from the hair of sheep or goats.

Section 3 - Tools, equipment and processes

appliqué Describes method of stitching/gluing patches onto fabric (originally to mend holes in clothes).

apron Protective item of clothing.

baking sheet Flat metal sheet for baking pizzas, rolls etc.

basin China or plastic bowl for mixing ingredients in.

batik Method of dyeing material in which parts to be left uncoloured are waxed.

bench hook Device which hooks over the edge of a table or tightened into bench vice to provide a platform on which to work with materials.

bench vice Holding device for components or materials so they may be worked on.

bodkin Large-eyed blunt needle for weaving or threading.

bradawl Hand tool used to make small holes in wood before inserting screws and nails.

can opener Device for opening metal cans.

chopping board Board (nowadays usually plastic) used for chopping ingredients.

cladding The use of sheet material to cover a frame structure

compass cutter Hand tool for cutting holes in paper or card.

compression The application of pressure to squeeze an object.

computer control The use of programming a computer in order to instruct a device to carry out a sequence of actions.

conductor A material which allows heat or electricity to pass through it.

construction kit Kit of parts ready to assemble to make models or structures.

control Process of making an action take place; computer control involves programming the computer so it will instruct a device to carry out an action.

copying saw Saw with removable blade, used for cutting curves in wood or plastic; its teeth face the handle so it cuts on the pull stroke (safety warning).

crank Mechanism that can change circular movement to linear (straight-line) movement.

crocodile clip Device shaped like a clothes-peg, used to attach wires to electrical components.

current Flow of electricity through an electrical circuit.

cutting mat Protective surface on which to cut paper or card without scoring through it.

decoration To add attractive detail.

dishcloth Soft cloth used in washing dishes.

drill Tool for making holes in wood, plastic or metal; can be mounted in a drill stand for extra safety (safety warning).

effort The force which is put into a mechanical system.

electricity A form of energy.

energy Capacity to do work, supplied by burning fuel, whether it is food for people, petrol for cars or electricity for machines.

file Hand tool used to shape and smooth rough edges on wood, plastic or metal.

Section 4 - Food Preparation:

bake To cook in an oven.

baste To coat with oil while roasting.

beat To mix with a fork or whisk.

boil To cook in water held at boiling point.

dice To cut into cubes.

glaze To coat with egg or milk to give a shiny finish after baking.

grill To cook close to a heat source.

knead To form a dough mixture.

roast To baste with hot oil to keep food moist while cooking in an oven.

rub in To mix together flour and fat using the fingertips until it resembles fine breadcrumbs.

set To allow a liquid or runny mixture to solidify when cooled.

simmer To almost boil, but where bubbles only break the surface from time to time.

force Something that changes the speed or direction of an object.

grater Device with rows of cutting edges for grating cheese, lemon peel or vegetables.

hygienic To maintain health through cleanliness.

insulator A material which does not allow electricity to pass through it, or which slows down heat transfer.

knives Cutting tools, from paring and grapefruit knives to craft knives (safety warning).

ladle Deep, long-handled spoon for soups or sauces.

measuring jug Jug with levels marked for quantities of liquids or solids such as flour.

measuring spoons Set of spoons to measure amounts of ingredients, such as teaspoonful.

mixing bowl Bowl for mixing ingredients.

palette knife Blunt, flat-bladed knife for applying paint or for spreading in cookery.

pan Range includes saucepans, frying pans, omelette pans and steamers.

pastry cutters Cutting discs, often with a fluted edge, for cutting out e.g. pastry for tarts, or scones.

pizza tray Flat round baking tray.

warning).

scales Device for measuring weight.

Sewing Terms:

back-stitch Stitching where each stitch overlaps the previous one.

blanket stitch Hemming stitch, particularly on the edge of blankets.

cross-stitch Stitches which form a cross shape.

running stitch Stitches which do not overlap.

tacking stitch Light stitching to hold material in place.

tie and dye Method of tying parts of a piece of cloth before dyeing so that patterns are achieved.

weaving Interlacing threads running in two directions.