Progression of Knowledge in Design & Technology to Support Progressive and Sequential Planning and Scaffolding and Challenge in Planning

Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation. **National Curriculum Purpose of Study 2014**

The national curriculum for design and technology aims to ensure that all pupils:

♣ develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world

♣ build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users

♣ critique, evaluate and test their ideas and products and the work of others

♣ understand and apply the principles of nutrition and learn how to cook.

OUR LADY OF LOURDES
CATHOLIC MULTI-ACADEMY TRUST

Substantive Knowledge

Development Matters	National Curriculum Programmes of Study Design & Technology Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment]. When designing and making, pupils should be taught to:	
3 and 4 Year Olds **PSED** • Select and use activities and resources, with help when needed. This helps them to achieve a goal they have chosen or one which is suggested to them. **PD** • Use large-muscle movements to wave flags and streamers, paint and make marks. • Choose the right resources to carry out their own plan. • Use one-handed tools and equipment, for example, making snips in paper with scissors. **UW** • Explore how things work **EAD** • Make imaginative and complex 'small worlds' with blocks and construction kits, such as a city with different buildings and a park. • Explore different materials freely, in order to develop their ideas about how to use them and what to make. • Develop their own ideas and then decide which materials to use to express them. • Create closed shapes with continuous lines, and begin to use these shapes to represent objects.	**KS 1 Pupils should be taught to:** ***Design :*** • design purposeful, functional, appealing products for themselves and other users based on design criteria • generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology ***Make:*** • select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] • select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics ***Evaluate:*** • explore and evaluate a range of existing products • evaluate their ideas and products against design criteria ***Technical knowledge:*** • build structures, exploring how they can be made stronger, stiffer and more stable • explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.	**KS 2 Pupils should be taught to:** ***Design:*** • use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups • generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design ***Make*** • select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately • 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 ***Evaluate*** • investigate and analyse a range of existing products • evaluate their ideas and products against their own design criteria and consider the views of others to improve their work • understand how key events and individuals in design and technology have helped shape the world ***Technical knowledge*** • apply their understanding of how to strengthen, stiffen and reinforce more complex structures • understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] • understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] • apply their understanding of computing to program, monitor and control their products.
Reception **PD** • Progress towards a more fluent style of moving, with developing control and grace. • Develop their small motor skills so that they can use a range of tools competently, safely and confidently. • Use their core muscle strength to achieve a good posture when sitting at a table or sitting on the floor.		

EAD • Explore, use and refine a variety of artistic effects to express their ideas and feelings. • Return to and build on their previous learning, refining ideas and developing their ability to represent them. • Create collaboratively, sharing ideas, resources and skills		
ELG **PD Fine Motor Skills** • Use a range of small tools, including scissors, paintbrushes and cutlery **EAD Creating with Materials** • Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. • Share their creations, explaining the process they have used.		

	Reception	Year 2 Wheels & Axels (History-Toys)	Year 5 Pop-up book
Mechanisms	**Pupils should know:** • Wheels turn when they move • Wheels are attached to the vehicle • Wheels move on a vehicle not the frame • some real-life items that use wheels such as wheelbarrows, hamster wheels and vehicles. .	**Pupils should know:** • that different materials have different properties and are therefore suitable for different uses. • that mechanisms are a collection of moving parts that work together as a machine to produce movement. • there is always an input and an output in a mechanism. • that an input is an energy that is used to start something working. • that an output is the movement that happens as a result of the input. • that a wheel needs an axle to move. • that a wheel needs to be round to rotate and move. • that an axle moves within an axle holder. • what fixed and free wheels are in a design process. • that the chassis is the frame or base on which the vehicle is built. • that a chassis should be strong and rigid enough to hold the vehicle. • that the chassis should include axle holders. These designed so that the axles do not have too much friction against them. • that the axle needs to be strong enough to hold the wheels, and fit freely in the axle holder. • that fixed wheels need to be firmly attached. If not, they need a stopper to prevent them from falling off. • that some materials allow the wheel to move more freely on surfaces. that it is important to test my design as I go along so that I can solve any problems that may occur.	**Pupils should know:** • that mechanisms control movement. • that mechanisms can be used to change one kind of motion into another. • that drawing a net can be used to create a structure. • that all moving things have kinetic energy. • the shape of an object will affect how it moves. • that aesthetics means how an object or product looks in design and technology. • that a template is a stencil you can use to help you draw the same shape accurately. • that it is important to assess and evaluate design ideas and models against a list of design criteria. • how to use sliders, pivots and folds to create paper-based mechanisms. • an input is the motion used to start a mechanism; • an output is the motion that happens as a result of starting the input. • that structures use the movement of the pages to work. • that mechanisms control movement. • I know that a design brief is a description of what I am going to design and make. that designers often want to hide mechanisms to make a product more aesthetically pleasing. • I know that I need to consider the preferences and needs of the user. • I know that good quality making should be neat, accurate and securely assembled.
	Key Vocabulary	**Key Vocabulary** design, design criteria, wheel, pods, axle, axle holder, frame, mechanism, wheel, stable, strong, test,	**Key Vocabulary** design, design brief, design criteria, input, layers, lever, mechanism, model, motion, output, pivot, slider, spacers, structure, reinforce, research

	Year 1 Little Red Riding Hood Puppets	Year 2	Year 4
Textiles	**Pupils should know:** • what textiles are and can give some examples of them. • what a puppet is and their purpose. • that a design is a way of planning our idea before we start. • that threading is putting one material through an object. • how to use scissors to cut. • that 'joining technique' means connecting two pieces of material together. • that there are various temporary methods of joining fabric by using staples, glue or pins. • that different techniques for joining materials can be used for different purposes. • that a template (or fabric pattern) is used to cut out the same shape multiple times. • that drawing a design idea is useful to see how an idea will look. • what a running stitch looks like, how to use it and when it is used (quickest stitch to use) • how to decorate my fabric with buttons, beads, sequins and ribbons using simple applique. • what I like about the item I made and why. • how closely my finished product meets my design criteria.	**Pupils should know:** • what a running stitch looks like, how to use it and when it is used. • it is the quickest stitch to use. • what a template is used for. • that sewing is a method of joining fabric. • that different stitches can be used when sewing. • the importance of tying a knot after sewing the final stitch. • that a thimble can be used to protect my fingers when sewing. • how to use my own ideas and the ideas and experiences of others to design something for Little Red Riding Hood. • how to cut out shapes created by drawing around a template onto fabric with help. • how to join materials andcomponents in different ways (using running stitch, large eye needles, glue, staples, over-sewing,	**Pupils should know:** • that a fastening is something that holds two pieces of material together. • what the main types of fastenings are. • how to include a fastening. • that creating a mock-up (prototype) of my design is useful for checking ideas and proportions. • that my design is fit for purpose.

		tape) with increasing accuracy and precision. • what I like about my pouch and why. how closely my finished products meets their design criteria and can identify likes, dislikes, strengths and possible changes.	
	Key Vocabulary design, equipment, glue, hand puppet, safety pin, technique, inspiration, model, stencil	**Key Vocabulary** decorate, fabric, fabric glue, knot, needle, needle threader, running stitch, sew, template, thread.	**Key Vocabulary:** fabric, fastening, fix
	Reception **Junk modelling**	**Year 1**	**Year 3**
Structures	**Pupils should know:** • different structures are used for different purposes. • a structure is something that has been made and put together.	**Pupils should know:** • that a structure is something built for a reason. • that structures can be large e.g. buildings and bridges) or small (e.g. chairs or tables) • that freestanding structures are structures that can stand up without being attached to something else. • that freestanding structures need to support their own weight. • that some materials are stronger and more rigid than others e.g. card and paper • that structures can be made stronger and more rigid by making sure that parts and materials are properly joined together. • that the buttress adds width to the base, making the structure more stable. • what makes a strong, stable, rigid structure. • I know how to turn 2D nets into 3D structures. • I know how to test my product. I know how I could make my design better.	**Pupils should know:** • I know that structures are things that are built for a purpose, for example to support something or hold something. • I know that shell structures are structures with a solid outer surface (which may be curved or flat) and a hollow inner area. • I know that shell structures can serve many different purposes. Often, they are used to protecting, containing and/or presenting (e.g. packaging). • I know that some examples of shell structures are food packaging, tunnels, helmets, drinks cans, and boats. • I know that a rounded outer surface is particularly strong, because it spreads forces throughout the whole structure, which means every part of the structure supports only a small part of the load. • I know the importance of strength and stiffness in structures. • I know that shell structures may be used to contain things. • I know that shell structures may be used to protect things. • I know that shell structures may be used to present things. • I know that nets can be used to make 3D products. • I know that a net is what a 3D shape would look like if it were opened out flat. • I know that nets can then be assembled using either CAD (computer aided design) systems or by hand. • I know that scoring is the process of marking a sheet to make it easier to fold. • I know that outer edges of the net can be cut out (apparatus depends on material). • I know that tabs are additional strips on the net that can be scored and folded to make a surface for sticking vertices together. • I know that a design specification is a list of success criteria for a product.

	Key Vocabulary: Structure, build,	**Key Vocabulary:** base, rotate, rotor, rotor blade, sail, stable, structure, equal, fold, length, same, scissors, width, attach, join, test, turn, evaluate, improve.		**Key Vocabulary:** Structures, Shell Structures, Packaging, Purpose, Forces, Style, Font, Durable, 3D Nets, Tabs, Folding/Layering, Corrugating/ Ribbing, CAD, castle, net, shape, structure, design, net, scoring, structure, tab.			
	Reception **Soup**	**Year 1** **Smoothies**	**Year 2** **Balanced Diet-Wraps**	**Year 3** **Seasonal fruit tarts**	**Year 4** **Eating Seasonally**	**Year 5** **Developing a Recipe**	**Year 6** **Come Dine with**
Food	**Pupils should know:** • vegetables and fruit are grown. • and name some common vegetables and fruit • different vegetables and fruit taste different. • eating fruit and vegetables is good for us. Some vegetables have to be cooked before you eat them. • why different packages might be used for different foods. **Safety Retrieval:** it is important to use oven gloves when removing hot food from an oven.	**Pupils should know:** • that a fruit has seeds and a vegetable does not. • that fruits grow on trees or vines. • that vegetables can grow either above or below ground. • that vegetables are any edible part of a plant. • how fruits and vegetables grow. **Wider knowledge:** • that different fruits and vegetables need different conditions to thrive. • that some fruit and vegetables are seasonal. • preparing (mixing, weighing, measuring) and cooking processes (baking or grilling) • which fruits need to be peeled before blending and which do not.	**Pupils should know:** • that 'diet' means the food and drink that a person or animal usually eats. • that the five main food groups are: carbohydrates, fruits and vegetables, protein, dairy and oils and spreads. • that I should eat a range of different foods from each food group, and roughly how much of each food group. • where to find the nutritional information on packaging. • what makes a balanced diet. • that nutrients are substances in foods that all living things need to make energy, grow and develop. • how to cut, grate, snip and spread to prepare foods. • that cooking instructions are known as recipes.	**Pupils should know:** • that food can be grown. • that there are different food groups. • that a balanced diet is important. • that seasonal means foods that grow in a given season in a given country. • that some seasonal foods that grow in the UK and what season they grow in.	**Pupils should know:** • that the amount of an ingredient in a recipe is known as the 'quantity'. • that safety and hygiene are important when cooking. • the following cooking techniques: sieving, measuring, mixing/stirring, cutting out and shaping. • the importance of budgeting while planning ingredients for a recipe. • that products often have a target audience.	**Pupils should know:** • that beef comes from cows reared on farms. • that preparing processes are the different ways that we get food ready to be eaten. • that recipes can be adapted to suit nutritional needs and dietary requirements. • that nutritional information is found on food packaging. • know that coloured chopping boards can prevent cross-contamination. • that I need to remove any jewellery and tie back long hair. Ideally, wear a hair net. • that I need to wear an apron and roll up my sleeves. I need to tie my apron securely. • that I need to wash my hands with hot	**Pupils should know:** • that 'flavour' is how a food or drink tastes. • that many countries have 'national dishes' which are recipes associated with that country. • about the seasonality of foods according to seasons and hemispheres. • that 'processed food' means food that has been put through multiple changes in a factory. • the difference between a savoury and sweet dish. • where food comes from (grown, raised, caught) and what it means

		• that ingredients need to be chopped into smaller pieces before blending. • that a blender is a machine which mixes ingredients together into a smooth liquid. • that fruits and vegetables blend down from a solid to a liquid.	• that 'ingredients' means the items in a mixture or recipe. • that the amount of an ingredient in a recipe is known as the 'quantity.' • that I should have a maximum of five teaspoons of sugar a day to stay healthy. • many food and drinks we do not expect to contain sugars do; we call these 'hidden sugars.' • similar coloured fruits and vegetables often have similar nutritional benefits. • safety rules for using, storing and cleaning a knife safely. • how to review and give a score to evaluate.	• that eating seasonal foods can have a positive impact on the environment. • how to cut and peel safely. • how to describe the flavour and texture of foods. • that the appearance of food is as important as taste. • that similar coloured fruits and vegetables often have similar nutritional benefits.		water and antibacterial soap, for at least 20 seconds. • that washing my hands should be done before, during and after preparing food. • that I need to use different chopping boards and knives for raw meat & other foods. This stops bacteria spreading. • that I need to use a food thermometer to check that food is cooked through. I know that I need to check the dates on food, and check for allergies & diet e.g. vegetarian, vegan. • that I need to clean up properly after yourself.	to eat sustainably. • what happens to a certain food before it appears on the supermarket shelf (farm to fork). • that not all courses complement one another. • the preparing processes of slicing, mixing, weighing/measuring, grating, serving and adding/substituting and the cooking processed of baking, boiling, frying, grilling, griddling, steaming, poaching. • that it is important to wash fruit and vegetables before eating to remove any dirt and insecticides. • that I need to remove any jewellery and tie back long hair. Ideally, wear a hair net. • that I need to wear an apron and roll up my

							sleeves. I need to tie my apron securely. • that I need to wash my hands with hot water and antibacterial soap, for at least 20 seconds. • that washing my hands should be done before, during and after preparing food. • that I need to use different chopping boards and knives for raw meat & other foods. This stops bacteria spreading. • that I need to use a food thermometer to check that food is cooked through. • that I need to check the dates on food, and check for allergies & diet e.g. vegetarian, vegan. • that I need to clean up properly after yourself.

	Key Vocabulary Vegetable and fruit names, taste, peel	**Key Vocabulary** Vegetable and fruit names, taste, sweet, sour, crunchy, soft, cook	**Key Vocabulary** Fruit, vegetable, (names of) seeds, vines, trees, blender, roots, leaves, smoothie, blend, chop, peel	**Key Vocabulary** Balanced diet, nutrition, food groups, Carbohydrates, fruits and vegetables, protein, dairy, fat and sugar.	**Key Vocabulary** arid, climate, country, Mediterranean, mountain, polar, temperate, tropical, weather, export, import, seasonal, seasons, cut, grate, peel, snip, complementary, design, mock-up, appearance, evaluate, taste, texture	**Key Vocabulary** buttery, crunchy, ingredients, target audience, taste, texture, combine, cream, hygiene, sieve, sift, wooden spoon, addition, appearance, budget, design, ingredients, multiplication, pounds, construct, cuboid, cut, fold, layout, target audience, adapt, ingredients, modify, unique, market research, comment, compare, evaluate, opinion	**Key Vocabulary** abattoir, beef, farm, ingredients, process, adaptation, enhance, ingredients, preference, evaluate, justify, nutrient, nutritional value, cook, cross-contamination, cut, equipment, grate, hygiene, measure, press, safety	**Key Vocabulary** balance, bitter, complement, enhance, pairing, salty, sour, sweet, savoury, umami, equipment, flavour, ingredients, method, research, recipe, balance, complement, enhance, pairing, preparation, farm to fork, flavour, ingredients, method, preparation, recipe, storyboard,

	Year 3 Electrical Posters	Year 4 Torches
Electrical Systems	**Pupils should know:** • that an electrical system is a group of parts (components) that work together to transport electricity around a circuit. • the common features of an electric product (switch, battery or plug, dials, buttons etc.) • that an electric product uses an electrical system to work (function). • the name and appearance of a bulb, battery, battery holder and crocodile wire to build simple circuits. • how to carry out research based on a given topic (e.g. The Romans) to develop a range of initial ideas. • how to test the success of initial ideas against the design criteria and justifying opinions. • how to measure and mark materials out using a template or ruler. • how to give and accept constructive criticism on own work and the work of others. • how to revisit the requirements of the client to review developing design ideas and check that they fulfil their needs • I know how to generate a final design for the electric poster with consideration for the client's needs and design criteria. • I know how to plan the positioning of the bulb (circuit component) and its purpose. • I know how to mount the poster onto corrugated card to improve its strength and withstand the weight of the circuit on the rear. • I know how to fit an electrical component (bulb). • I know how to learn ways to give the final product a higher quality finish (e.g. framing to conceal a rough cut edge)	**Pupils should know:** • what electrical conductors and insulators are • that electrical conductors are materials which electricity can pass through. • that electrical insulators are materials which electricity cannot pass through. • that a battery contains stored electricity that can be used to power products. • that an electrical circuit must be complete for electricity to flow. • that a switch can be used to complete and break an electrical circuit. • that electricity occurs naturally in lightning. • that it took a long time for people to discover how to capture and use electricity for electrical items such as hairdryers and computers. • that until they discovered how to capture it, people lived without any electricity. • how a torch works. • what is important in torch design. •
	Key Vocabulary Components, switch, battery, plug, electrical system, bulb, battery, battery holder, crocodile cli, wire, circuit,	**Key Vocabulary** Conductors, insulators, stored electricity, break, contacts, reflector, lamp, lens,

Disciplinary & Procedural Knowledge

STRUCTURES			
	Reception	Year 1	Year 3
Design		• Knowing the importance of a clear design criteria. • Including individual preferences and requirements in my design. • Developing my ideas through talking, drawing and making mock-ups of my idea. • Knowing that a design criteria are a list of points to ensure the product meets the client's needs and wants. • Creating a structure that stands up on its own. • Adding some weight to my structure.	
Make		• Using scissors to cut different materials. • Joining materials in different ways. • Choosing a range of materials to make a model. • Folding and layering (adding an extra layer of materials can also be used to strengthen and stiffen structures.) • Choosing appropriate tools and resources • Marking and measuring materials to use in a model or structure with help • Following my design criteria. • Holding scissors correctly. • Beginning to estimate equal distances. • Cutting carefully. • Folding to make the shape of the structure. • Using simple finishing techniques suitable for the structure I am creating. • Widening a hole. • Joining parts together. • Attaching a supporting structure.	• Constructing a range of 3D geometric shapes using a net by: • cutting along the bold lines. • folding along the dotted lines. • keeping the tabs, the correct size. • making crisply folded edges. • Constructing the net using glue to make a geometric shape.

		• Testing a structure.	
Evaluate		• Looking at and evaluating existing structures. • Evaluating my product by discussing how well it works in relation to the purpose, the user and whether it meets the original design criteria.	• Evaluating my own work and the work of others based on the aesthetic of the finished product and in comparison to the original design. • Suggesting points for modification of the individual designs.

Mechanisms and Mechanical Systems

	Year 2	Year 5
Design	• Designing and labelling a working wheel.	• Designing a pop-up book which uses a mixture of structures and mechanisms. • Designing a book made up of a front cover and four pages and including a mixture of structures and mechanisms within it. • Naming each mechanism, input and output accurately. • Storyboarding ideas for a book.
Make	• Using my own ideas and the experiences of others to design something that moves for a unique purpose. • Building a stable structure. • Testing elements of my design. • Adapting my design as necessary. • Making the wheel rotate. • Using mechanisms of wheels and axles in their products (using materials such as tubes, dowel, cotton reels for the axles and chasse etc.) • Marking and measuring materials to use in a model or structure with developing accuracy, with help. • Choosing appropriate resources and tools using specific vocabulary to name them. • Joining materials and components in different ways.	• I can follow a design brief to make a pop-up book, neatly and with focus on accuracy. • Using paper, card and glue to make my book structure. • Making mechanisms and/or structures using sliders, pivots and folds to produce movement. • Using layers and spacers to hide the workings of mechanical parts for an aesthetically pleasing result. • Completing the mechanisms and structures as detailed in my design template. • Making my book look neater and more attractive by using layers and spacers to hide relevant parts of my mechanisms. • Completing the surface decoration of my pop-up book by adding the story through: • pictures; • captions.
Evaluate		• Evaluating the work of others and receive feedback on my own work. • Suggesting points for improvement.

Food

	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design	• Designing a soup/fruit salad recipe as a class.	• Identifying if a food is a fruit or a vegetable. • Identifying seeds. • Sorting fruits and non-fruits.	• Identifying the five food groups. • Matching foods with	• Describing how climate affects where foods grow.	• Selecting ingredients for a target audience. • Calculating the cost of extra ingredients. • Creating a design for the final product.	• Comparing two bolognaise sauces.	• Adapting a traditional recipe • Understanding that the

	• Designing a simple soup packaging.	• Talking about where and how fruits and vegetables grow. • Deciding whether a fruit or vegetable will grow aboveground or underground. • Making predictions about where edible parts of plants will grow. • Designing smoothie carton packaging by-hand or on ICT software.	the food group they belong to. • Explaining how much of each food group I should have every day. • Identifying foods that I like. • Explaining the food groups in a meal. • Planning a balanced menu. • Designing a healthy wrap based on a food combination which work well together.	• Identifying seasonal ingredients from the UK. • Tasting seasonal ingredients. • Matching fruits and vegetables with the season in which they grow in the UK. • Finding recipes containing seasonal foods. • Describing the benefits of seasonal fruits and vegetables and their impact on the environment. • Identifying equipment used for preparing food. • Explaining why food would or would not need to be prepared. • Describing the safety rules for	• Creating a healthy and nutritious recipe for a savoury tart using seasonal ingredients, considering the taste, texture, smell and appearance of the dish. • Describe the packaging of different biscuits. • Creating a design for a biscuit box. • Folding and constructing a cuboid template.	• Researching existing recipes. • Suggesting alternative ingredients. • Writing an alternative recipe. •	nutritional value of a recipe alters if you remove, substitute or add additional ingredients. • Writing an amended method for a recipe to incorporate the relevant changes to ingredients. • Writing a recipe, explaining the key steps, method and ingredients. • Including facts and drawings from research undertaken. • Designing appealing packaging to reflect a recipe. • Identifying the five basic tastes. • Matching complementary flavours. • Explaining why certain flavours work well together.

				preparation techniques.			
Make	• Chopping plasticine safely. • Chopping fruit/fvegetables with support.	• Using a fork to hold foods I am cutting. • Using a table knife to cut soft foods. • Using a juicer to get juice from fruits. • Working safely and follow instructions • Chopping fruit and vegetables safely to make a smoothie. • develop a food vocabulary- taste, texture, smell and feel. • Choosing fruits and vegetables to taste. • Suggesting fruits to put together based on taste. • Describing a food's taste. • Deciding on three ingredients to create a recipe. • Gathering the ingredients for a simple recipe. • Cutting, peeling, grating and chopping fruit and vegetables safely with help to make a smoothie. • Measuring and weighing ingredients to use in a recipe with help. • Using my senses to compare my smoothie with my partner's.	• Chopping foods safely to make a wrap. • Grating foods to make a wrap. • Snipping smaller foods instead of cutting. • Spreading soft foods to make a wrap. • Describing appearance, smell and taste. • Identifying equipment used for preparing food. • Practicing food preparation skills using a range of equipment. • Slicing food safely using the bridge or claw grip. • Justifying using a piece of equipment with a type of food. • Constructing a wrap that	• Peeling foods by hand or with a peeler. • Cutting ingredients safely. • Designing a puff pastry tart using seasonal vegetables and fruits.	• Knowing how to prepare themselves and a work space to cook safely in, learning the basic rules to avoid food contamination. • Following the instructions within a recipe. • Working to a given timescale. • Working safely and hygienically. • Following a baking recipe and cooking technique. • Understanding safety and hygiene rules. • Discussing how a recipe can be changed. • Modifying the recipe using my design ideas and budget. • Collecting feedback from a member of my target audience.	• Understanding cross-contamination. • Using preparation skills. • Cutting resistant foods like onions safely and accurately. • Working safely with hot food. • Explaining how to avoid cross-contamination. • Selecting the right equipment for each preparation technique. • Making a video to explain a recipe. • Making a developed recipe.	• Cutting and preparing vegetables safely. • Using equipment safely, including knives, hot pans and hobs. • Knowing how to avoid cross-contamination. • Following a step by step method carefully including using the correct quantities of each ingredient to make a recipe. • Adapting a recipe based on research. • Working safely and hygienically with independence

			meets a design brief. • Tasting and evaluating different food combinations. • Selecting foods from specific food groups. • Describing the taste of different foods. • Explaining why I have chosen to put foods together. • Following design criteria. • Designing three healthy wrap ideas based on a food combination which work well together. • Explaining to someone else how I want to make my wrap and make a simple plan of what to do to make the product. • Justifying the choice I have made.				

Evaluate	• Tasting the soup/fruit salad and giving opinions. • Describing some of the following when tasting food: look, feel, smell and taste. • Choosing their favourite packaging design and explaining why	• Tasting and evaluating different food combinations. • Describing appearance, smell and taste. • Suggesting information to be included on packaging. • Choosing my favourite recipe. • Discussing how closely my finished product meets my design criteria.	• Slicing food safely using the bridge or claw grip with accuracy, safety and increased precision and independence. • Constructing a wrap that meets a design brief. • Identifying the equipment needed to prepare different foods. • Developing a food vocabulary- taste, texture, smell and feel. • Describing the taste, texture and smell of fruit and vegetables. • Describing the information that should be included on a label. • Evaluating which grip was most effective.	• identify current seasonal foods. • Tasting various fruits and vegetables and describe their flavours. • Contributing to a class taste wheel. • Describing the texture and flavour of ingredients. • Using colours to identify nutritional benefits. • Describing my puff pastry tart and the benefits of its ingredients. • Choosing ingredients based on a design brief. • Following the instructions within a recipe. • Tasting tarts and provide feedback.	• Evaluating and compare a range of products • Establishing and using design criteria to help test and review dishes. • Describing the benefits of seasonal fruits and vegetables and the impact on the environment. • Suggesting points for improvement when making a seasonal tart. • Creating criteria for evaluation. • Presenting my design for evaluation. • Evaluating the designs of others using criteria.	• Identifying the ingredients in spaghetti bolognaise. • Creating an informative poster. • Explaining the journey of beef from farm to table. • Analysing nutritional content. • Using a nutrition calculator. • Comparing nutritional values. • Making ingredient choices based on nutritional values. • Modifying a recipe to contain different ingredient choices.	• Evaluating a recipe, considering: taste, smell, texture and origin of the food group. • Taste testing and scoring final products. • Suggesting and writing up points of improvements when scoring others' dishes, and when evaluating their own throughout the planning, preparation and cooking process. • Evaluating health and safety in production to minimise cross contamination.

				• Considering taste, texture, appearance and use of seasonal ingredients. • Receiving feedback on my tart and identify strengths.			

Textiles				
	Reception	Year 1	Year 2	Year 4
Design	• Talking about what a good design needs. • Designing a simple pattern with paper. • Choosing from available materials.	• Creating simple success criteria. • Remembering that different techniques may be used to join fabrics for different purposes. • Joining fabric by pinning, stapling or gluing. • Sequencing steps for construction. • Designing a puppet using a template. • I can use a template to cut out my puppet.	• Threading a needle. • Sewing a running stitch. • Using neat and evenly spaced stitches to join fabric.	• Writing design criteria for a product, articulating decisions made. • Designing a personalised book sleeve.
Make	• Developing fine motor/cutting skills with scissors. • Exploring fine motor/threading and weaving (under, over technique) with a variety of materials. • Using a prepared needle and wool to practise threading.	• Cutting fabric neatly with scissors. • Using joining methods to decorate a puppet. • Sequencing steps for construction. • Joining fabrics together. • Aligning two pieces of fabric. • Using a template.	• Using a template to create a design for a pouch. • select and cut fabrics for sewing. • Decorating a pouch using fabric glue or running stitch. • Threading a needle. • Sewing a running stitch, with evenly spaced, neat, even stitches to join fabric. • Neatly pin and cut fabric using a template.	• Making and test a paper template with accuracy and in keeping with the design criteria. • Measuring, marking and cutting fabric using a paper template. • Selecting a stitch style to join fabric. • Sewing neatly using small regular stitches. • Joining fabric by sewing. • Sticking to my design criteria. •

		• Fitting my hand into my puppet. • Using joining methods to decorate my puppet. • Still putting my hand into the puppet after it is decorated.		
Evaluate	• Reflecting on a finished product and comparing to their design.	• Reflecting on a finished product, explaining likes and dislikes. • Evaluating my own and others' work.	• Trouble shooting scenarios posed by teacher. • Evaluating the quality of the stitching on others' work. • Discuss as a class, the success of my stitching against the success criteria. • Identifying aspects of their peers' work that they particularly like and why.	• Can say what the benefits of each fastening type are. • Can say what the disadvantages of each fastening type are. • Testing and evaluating an end product against the original design criteria.

Electrical Systems KS 2 ONLY

	Year 3	Year 4
Design	• Naming examples of information design. • Explaining the purpose of information design. • Describing or explaining the importance of information design. • Researching and selecting a topic to inform my design ideas. • Writing a paragraph about my chosen topic. • Sketching initial ideas for my electric poster that meet my design criteria. • Carrying out research based on a given topic (e.g. The Romans) to develop a range of initial ideas. • Developing an initial idea into a final design. • Designing an electric poster that fits the requirements of a given brief. • Planning the positioning of the bulb (circuit component) and its purpose	• Designing a torch, giving consideration to the target audience and creating both design and success criteria focusing on features of individual design ideas. • Factoring in who my product is for in my design criteria. • Designing a torch which satisfies both the design and success criteria.
Make	• Reviewing my initial ideas against the design criteria. • Providing and responding to peer feedback. • Create a final design for the electric poster. • Mount the poster onto corrugated card to improve its strength and allow it to withstand the weight of the circuit on the rear. • Measure and mark materials out using a template or ruler. • Fit an electrical component (bulb). • Generating a final design for the electric poster with consideration to the client's needs and design criteria. • Learn ways to give the final product a higher quality finish (e.g. framing to conceal a roughly cut edge).	• Making a torch with a working electrical circuit and switch. • Using appropriate equipment to cut and attach materials. • Assembling a torch according to the design and success criteria.
Evaluate	• Listing examples of common electric products (kettle, remote control etc.) • Learning to give and accept constructive criticism on own work and the work of others. • Testing the success of initial ideas against the design criteria and justifying opinions.	• Identifying electrical products. • Evaluating electrical products. • Identifying the features of a torch.

	• Revisiting the requirements of the client to review developing design ideas and check that they fulfil their needs. • Evaluating my final design against the design criteria. • Naming and identifying simple circuit components (bulb, battery and wires).	• Saying what is good and bad about different torches. • Testing and evaluating the success of a final product.