Over St. John's CE Primary School

'Let your light shine before others.' Matthew 5:16

DT Progression of Knowledge and Skills

Focus	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design	**Skills** I can select appropriate resources. I can use gestures, talking and arrangements of materials and components to show design. I can use language of designing and making (join, build, shape, longer, shorter, heavier etc.) **Knowledge** I know you design by making. I know what resources to select that are appropriate resources for my task.	**Skills** I can have my own ideas. I can explain what I want to do. I can explain what my product is for, and how it will work. I can use pictures and words to plan, begin to use models. I can design a product for myself following design criteria. I can research similar existing products. **Knowledge** I know I need to draw and label my design. I know what the purpose of my design is. I know why I need to research similar designs.	**Skills** I can have my own ideas and plan what to do next. I can explain the purpose of a product, how it will work and how it will be suitable for the user. I can describe design using pictures, words, models, diagrams and begin to use ICT. I can design products for myself and others following the design criteria. I can choose best tools and materials and explain choices. I can use knowledge of existing products to produce ideas. **Knowledge** I know I need to draw, label, and annotate my design. I know I need to follow a design criterion. I know why I chose the tools and material used.	**Skills** I can begin to research others' needs. I can show design meets a range of requirements. I can describe the purpose of product. I can follow a given design criteria. I can have at least one idea about how to create product. I can create a production plan which shows the order of making, equipment and tools needed. I can describe design using an accurately labelled sketch and words. I can make design decisions. I can explain how my product will work. I can make a prototype. **Knowledge** I know why I need to conduct research into a design brief. I know what a production plan is. I know why we need an accurately labelled sketch with some measurements. I know what a prototype is.	**Skills** I can research for design ideas using the computer. I can show design meets a range of requirements and is fit for purpose. I can begin to create own design criteria. I have at least one idea about how to create product and suggest improvements for design. I can produce a plan and explain it to others. I can say how realistic a plan is. I can include an annotated sketch with measurements. I can make and explain design decisions considering availability of resources. I can make a prototype that explores a design refinement. I can begin to use computers to help with my design. **Knowledge** I know I can use the computer to research design ideas. I know whether the design and finished piece is fit for purpose and ~~can~~ why we might suggest refinements. I know the computer can help to create my design.	**Skills** I can use the internet and questionnaires for research and design ideas. I can take a user's view into account when designing. I can begin to consider needs/wants of individuals/groups when designing and ensure product is fit for purpose. I can create own design criteria. I can produce a logical, realistic plan and explain it to others. I can use cross-sectional planning and annotated sketches. I can make design decisions considering time and resources. I can clearly explain how parts of product will work. I can model and refine design ideas by making prototypes and using pattern pieces. I can use computers to draw/show design. **Knowledge** I know that research can improve my design and improve the viability of the product. I know what a cross sectional drawing is and why I might annotate it. I know what a pattern piece is and that it is used to refine and test out products.	**Skills** I can draw on market research to inform design. I can use research of user's individual needs, wants, and requirements for design. I can identify features of design that will appeal to the intended user. I can create own design criteria and specification. I can follow and refine a logical plan. I can use annotated sketches, cross sectional planning and exploded diagrams. I can make design decisions, considering, resources and cost. I can clearly explain how parts of design will work, and how they are fit for purpose. I can independently model and refine design ideas by making prototypes, improving pattern pieces and testing materials for purpose. I can use a computer-based drawing package to aid the designs process. **Knowledge** I know why we gather appropriate market research. I know the importance of a detailed design plan. I know that I need to work out the cost and time implication of my design. I know why we test a design to ensure it is fit for purpose. I know we can use a drawing package to draw some of my design.
	Reception	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**

Make	**Skills** I can construct with a purpose, using a variety of resources. I can use simple tools and techniques. I can build / construct with a wide range of objects. I can select tools & techniques to shape, assemble and join. I can discuss how to make an activity safe and hygienic. I can record experiences by drawing, writing and photographs. I can understand different media can be combined for a purpose. **Knowledge** I know that that you can make models with a variety of material including construction kits and found material. I know that tools can be used to shape material. I know that material can be joined together using glue or Sellotape. I know we need to draw a design.	**Skills** I can explain what I am making and why. I can consider what I need to do next. I can select tools/equipment to cut, shape, join, finish, and explain my choices. I can mark out, cut, and shape, with support. I can choose suitable materials and explain choices. I can try to use finishing techniques to make product look good. I can work in a safe and hygienic manner with support. **Knowledge** I know why we need to mark, and shape material to suit my needs. I know why I have selected my resources and tools. I know to use the equipment safely. I know two ways to finish my product to make it look good. .	**Skills** I can explain what I am making and why it fits the purpose. I can make suggestions as to what I need to do next. I can join materials/components together in different ways. I can measure, mark out, cut and shape materials and components, with support. I can describe which tools I am using and why. I can choose suitable materials and explain choices depending on characteristics. I can select the finishing techniques to make product look good. I can work safely and hygienically. **Knowledge** I know several ways to join materials/components together. I know that to shape material I need to measure, mark out and cut. I know the tool which is best suited to my purpose. I know I need to work in a safe and hygienic manner. I know the finishing technique that will best suit my product.	**Skills** I can select suitable tools/equipment, explain choices; begin to use them competently. I can select appropriate materials which are fit for purpose. I can work through a plan in order. I can consider how good product will be and think of ways to improve it. I can begin to measure, mark out, cut and shape materials/components with some accuracy. I can begin to assemble, join, and combine materials and components with some support. I can apply a range of finishing techniques to improve the presentation of the product. **Knowledge** I know the reason why I have selected different tools and can explain how to use them. I know why I have used the material/components parts of my design. I know to follow the design plan. I know we need to measure, mark out cut and shapes material with some accuracy. I know it is important to finish my product to a high standard.	**Skills** I can select suitable tools and equipment, explain my choices in relation to required techniques and use accurately. I can select appropriate materials and explain why they are fit for purpose. I can organise and work through a plan in order ensuring I have all the resources needed. I can realise if product is going to be good quality. I can measure, mark out, cut and shape materials/components with accuracy. I can assemble, join, and combine materials and components with some accuracy. I can apply a range of finishing techniques with some accuracy. **Knowledge** I know the reason to use the tools I have selected and can explain how to use them safely. I know the importance of a detailed plan and resource list. I know to accurately assemble my product. I know we need to measure accurately. I know the finish techniques that are appropriate to my design brief.	**Skills** I can select tools/equipment with the design brief in mind and use them with a good level of precision. I can produce suitable lists of tools, equipment/materials needed. I can select appropriate materials, fit for purpose; explain choices, considering functionality. I can create and follow detailed step-by-step plan. I can explain how product will appeal to an audience. I can accurately measure, mark out, cut, shape and if necessary, adapt materials/components during the making process. I can accurately apply a range of finishing techniques and explain my choices. I can use techniques that involve a small number of steps. I can begin to be resourceful with practical problems. **Knowledge** I know the tools /equipment that are best suited to my product and can explain my choice. I know what to compile in a resources list considering my design brief. I know why a detailed plan improves the likelihood of design success. I know the finishing techniques best suited to my product and can explain why.	**Skills** I can use select tools and equipment considering the design brief and personal preference. I can produce suitable lists of tools, equipment, materials needed considering constraints, such as availability, time, and cost. I can select appropriate materials, fit for purpose; explain choices, considering functionality and aesthetics. I can create, follow, and adapt detailed step-by-step plans. I can explain how product will appeal to audience; make changes to improve quality. I can accurately measure, mark out, cut, shape, and adapt materials/components to improve the design. I can make reasonable adaptations to making process whilst still ensuring the accuracy of the process. I can combine finishing techniques that will appeal to the target audience and explain my choices. I can use techniques that involve an ordered sequence of steps to ensure they work. I can be resourceful with practical problems and seek to solve them independently. **Knowledge** I know the tools and equipment that are best suited for the task and can explain why taking into account personal competency and preference. I know a detailed plan should consider and take into account real world constraints. I know the material I have used is fit for purpose and I can explain my choices. I know to adapt my making process to ensure success. I know to follow a detailed plan and to retrace my steps to pinpoint any issue.

							I know the making process can include adaptations to solve problems.
	Reception	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Evaluate	**Skills** I can adapt work if necessary. I can practise some appropriate safety measures independently. I can talk about how things work. I can look at similarities and differences between existing objects / materials / tools. **Knowledge** I know I need to work safely. I know why my 'make' works and can talk about it.	**Skills** I can talk about my work, linking it to what I was asked to do. I can talk about an existing product considering use, materials, how they work, audience, where they might be used and what is good/not good about them. I can talk about things that other people have made. I can begin to talk about what could make my/the product better. **Knowledge** I know I need to follow the design. I know I need to incorporate good ideas into my model. I know I need to adapt and improve my product.	**Skills** I can describe what went well, thinking about design criteria. I can talk about existing products considering use, materials, how they work, audience, where they might be used, and express personal opinion. I can evaluate how good existing products are. I can talk about what I would do differently if I were to do it again and why. **Knowledge** I know I need to evaluate my work against the design criteria. I know I can magpie good ideas and build them into my product. I know what I would do to improve my product.	**Skills** I can look at design criteria while designing and making. I can use the design criteria to evaluate the finished product. I can say what I would change to make design better. I can begin to evaluate existing products, considering how well they have been made, materials, whether they work, how they have been made, fit for purpose. I can begin to understand by whom, when and where products were designed. I can learn about some inventors/designers/ engineers/chefs/ manufacturers of ground-breaking products. **Knowledge** I know I need to follow a design criteria. I know I need to evaluate my product and suggest improvements. I know about a designer who has influenced the design/creation of similar product.	**Skills** I can refer to design criteria while designing and making. I can use criteria to evaluate product. I can begin to explain how I could improve original design. I can evaluate existing products, considering how well they have been made, materials, whether they work, how they have been made, fit for purpose. I can discuss by whom, when and where the products were designed. I can research whether products can be recycled or reused. I can learn about innovators and designers who worked within this area. **Knowledge** I know why it is importance that each element of the production is being led by the design criteria. I know I need to evaluate my product against the design criteria. I know whether my product is recyclable or reusable. I know about some inventors/designers/ engineers/chefs/manufacturers of ground-breaking products.	**Skills** I can evaluate quality of design whilst designing and making. I can evaluate ideas and finished product against specification, considering purpose and appearance. I can test and evaluate final product. I can evaluate and discuss existing products, considering how well they have been made, materials, whether they work, how they have been made, fit for purpose. I can begin to evaluate how much products cost to make and how innovative they are. I can research how sustainable materials are. I can talk about some key inventors/designers/ engineers/ chefs/manufacturers. **Knowledge** I know I need to evaluate and test the quality of the product against the design criteria. I know what a cost and time analysis is. I know what works of innovators and creators have impacted on the development of this product. I know what the sustainability of the materials used is.	**Skills** I can evaluate quality of design while designing and making; is it fit for purpose? I can check the design and improve it throughout the entire process. I can evaluate ideas and finished product against specification, stating if it is fit for purpose. I can test and review final product; explain what would improve it and the effect different resources may have had. I can evaluate how much products cost to make and how innovative they are. I can research and discuss how sustainable materials are. I can consider the impact of products beyond their intended purpose. I can discuss some key inventors/designers/ engineers/ chefs/manufacturers of ground-breaking products. **Knowledge** I know why my product is fit for purpose. I know what the sustainable material I used is and can talk about alternatives. I know the work of innovators and creators has impacted not only on their designs but the work of others. I know what the impact my produce has on the world around us, and I can discuss ways to negate it.
Vocabulary for Design, Make and Evaluate	**Vocabulary** plan, draw, make, join, build, shape, longer, shorter, heavier	**Vocabulary** planning, investigating, design, evaluate, user, purpose, ideas	**Vocabulary** design criteria, product, function,	**Vocabulary** model, prototype, annotated sketch, functional, innovative, investigate, label, drawing, appealing	**Vocabulary** evaluating, design brief, design criteria, refinements	**Vocabulary** design decisions, functionality, authentic, mock-up	**Vocabulary** design specification, efficacy, cross sectional drawings, design and specification.
	Reception	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**

Technical knowledge Material/Structure	**Skills** I can begin to join material with help. I can choose the material/resources needed. I can describe differences in materials. **Knowledge** I know two ways to join material. I know what material I want to use and can explain my choice. **Vocabulary** cut, fold, join, fix, wall, tower, weak, strong, top, side, edge, corner, point, straight, curved, metal, wood, plastic circle, triangle, square and rectangle.	**Skills** I can begin to measure and join materials, with some support. I can describe some different characteristics of materials. I can make a free-standing structure stronger, stiffer and more stable. I can use joining, rolling, or folding to make it stronger. **Knowledge** I know the best way to join the material I have chosen. I know why some material is better than others for the product I am making. I know why you need to stiffen a standing structure. **Vocabulary** structure, framework, underneath, surface, thinner, thicker, cuboid, cube, cylinder, base, strengthen and strong.		**Skills** I can measure materials using standard units of measure. I can use appropriate materials. I can join materials in different ways. I can work accurately to make cuts and holes. I can use own ideas to try to make product stronger. **Knowledge** I know why we use standard units of measure to aid the design. I know which material best suits my product and discuss why. I know different ways to join material and justify the choice I made. I know I need to ensure my product has integral strength. **Vocabulary** shell structure, three-dimensional (3-D) shape, net, prism, vertex, edge, face, length, width, breadth, capacity, marking out, scoring, shaping, tabs, adhesives, joining, assemble, accuracy, material, stiff, stiffen prototype, strengthen, and frame	**Skills** I can measure carefully to avoid mistakes. I can use appropriate material and explain why. I can continue working on product even if prototype did not work. I can make a strong, stiff structure suitable to the product. I can identify the points of structural weakness. **Knowledge** I know to check my measurements for accuracy. I know which material would best suit my product. I know I need to make my product strong enough for its purpose. I know what will improve my prototype. **Vocabulary** reduce, reuse, recycle, reinforce corrugating, ribbing, laminating, font, lettering, text, graphics, decision, structure, reinforce, triangulation, stability, temporary and permanent	**Skills** I can select materials carefully, considering intended use of the product, the aesthetics and functionality. I can reinforce and strengthen a 3D frame. I can continue working on product even if original did not work. I can explain how product meets design criteria. I can identify the possible weak spots in my design and incorporate ways to strengthen these. **Knowledge** I know what material is best for my product and I can explain why. I know I need to strengthen a 3D frame and can discuss the best option. I know I need to fix a failing design and can discuss design amendments in retrospect. **Vocabulary** triangulation, design brief, design specification, annotated sketch, purpose, user, innovation, research, functional	
	Reception	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Technical knowledge for Mechanisms		**Skills** I can use levers or slides. I can incorporate a pivot point. **Knowledge** I know what the difference is between a slide and a lever.	**Skills** I can begin to understand how to build wheels and axles. I can build a bracket/hold for a moving axle. **Knowledge** I know I need to fix wheels onto an axle.	**Skills** I can make a lever and linkage mechanism. I can use a fixed pivot and a loose pivot in my system. I can alter product after testing to improve how it works. I can share good working practice and ideas with my peers. **Knowledge** I know what a lever and linkage mechanisms is and how it creates movement.	**Skills** I can create a pneumatic system that creates movement. I can select most appropriate tools / techniques to control the flow of air. I can explain alterations to the product after checking/testing the pneumatics. I can alter the pressurisation of air to create varied movements. **Knowledge** I know what I need to create a sealed pneumatic system.	**Skills** I can build a pulley and talk about the different types of rotation. I can build a pulley system that creates movement. I can control the movement of the pulley system. **or** I can build a gear system to create movement. I can explore gear ratio and decide which one is best for the product. I can control the movement of the gear system. **Knowledge** I know why a pulley system works. I know what a driver and follower is.	**Skills** I can use a Cam to create movement and change the direction of the movement. I can name the different types of movement created by a Cam. (Oscillating, reciprocating, and rotating) I can choose a Cam to create the movement required for my design. **Knowledge** I know that a cam is a rotating piece that transforms rotary motion into linear motion.

		I know where to put my pivot point with support. **Vocabulary** slider, lever, pivot, bridge/guide card, masking tape, paper fastener, join pull, push, up, down, straight, curve, forwards, backwards, design, make, evaluate, user, purpose, ideas, product, and function.	I know the difference between a fixed and freely moving axle. **Vocabulary** vehicle, wheel, axle, axle holder, chassis, body, cab assembling, cutting, joining, shaping, finishing, fixed, free, moving, mechanism, names of tools, equipment and materials used, user, criteria	I know what a fixed and loose pivot point is. I know the difference between fixed and loose pivot points. **Vocabulary** linkage, slot, guide system, input, process, output, linear, rotary, oscillating, reciprocating, prototype, innovative and appealing.	I know I control movement through altering the pressure of the air within the system. **Vocabulary** components, fixing, attaching, tubing, syringe, plunger, split pin, paper fastener, pneumatic system, movement, control, compression, pressure, inflate, deflate, pump, seal, air-tight, design brief, research, evaluate, constraints and investigate.	I know why the tension in the belt is important. **or** I know why the gear ratio is important. I know what a driver and a follower is. I know why the tension in the belt is important. **Vocabulary** pulley, drive belt, gear, rotation, spindle, driver, follower, ratio, transmit, axle, motor circuit, switch, circuit diagram, annotated drawings, exploded diagrams, mechanical system, electrical system, output design decisions, authentic and design specification	I know the different types of movement created by Cams. I know that there are different types of Cams for different movements. **Vocabulary** cam, snail cam, off-centre cam, peg cam, pear shaped cam follower, axle, shaft, crank, handle, housing, framework rotation, rotary motion, reciprocating motion annotated and sketches
	Reception	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Technical knowledge Textiles	**Skills** I can choose textiles for a specific purpose. I can cut, with support, and manipulated the textile to suit my design. **Knowledge** I know which fabric suits my project. **Vocabulary** fabric, furry, smooth, silky, shiny, waterproof, stretchy, rough, open weave, thread, scissors, pinking, thread, glue, join, decorate, make and finish.		**Skills** I can carefully measure and cut textiles to produce accurate pieces. I can join textiles together to make a product and explain how I did it. I can understand that a 3D textile structure can be made from two identical fabric shapes. I can use a simple running stich on my product. **Knowledge** I know I need to use a pattern to produce accurate measurements. I know different ways to join the fabric. I know what a running stich is. **Vocabulary** names of existing products, joining, and finishing techniques, tools, components template, pattern pieces, mark out, features, suitable, quality mock-up, evaluate, user, purpose, function	**Skills** I can use a pattern correctly. I can cut out a pattern correctly and understand the need for a seam allowance. I can join using either, backwards running stitch, over sew stitch or blanket stitch. I can strengthen, stiffen, and reinforce existing fabrics. I can begin to understand that a simple fabric shape can be used to make a 3D textiles project. **Knowledge** I know I need to pin and cut out a pattern correctly including a seam allowance and the pattern orientation. I know what stitch to use to join two pieces of fabric. I know why to reinforce my product to make it fit for purpose. **Vocabulary** cotton, polycotton, muslin, fastening, compartment, zip, button, structure, finishing technique, strength, weakness, stiffening, templates, stitch, seam, seam allowance user, purpose, model, prototype, annotated sketch, functional, innovative, investigate, label, drawing, aesthetics,, pattern pieces, thread, pins, needles		**Skills** I can think about the product when choosing textiles. I can think about how to make product strong and light. I can begin to devise a template. I can make a 3d product can be made from a combination of accurately made pattern pieces and fabric shapes. I can use a backstitch or whip stitch to strengthen the seam. **Knowledge** I know I need to choose a fabric fit for purpose. I know I need to make a template/pattern and use it to cut out my fabric accurately. I know you can join two pieces of fabric using a back or whip stitch. **Vocabulary** wadding, reinforce, right side, wrong side, hem, name of textiles and fastenings used.	
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	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Technical knowledge Food & Nutrition	**Skills** I can discuss how to make an activity safe and hygienic. I can begin to understand some food preparation tools, techniques, and processes. I can practise stirring, mixing, pouring, blending. I can understand need for variety in food. I can begin to understand that eating well contributes to good health. **Knowledge** I know I need to use a vegetable peeler and knife with adult support. I know some foods that are good for me to eat. I know need to prepare food hygienically. **Vocabulary** fruit and vegetable names, names of equipment and utensils, skin, seed, pip, ingredients, healthy diet, slice, cut, scoop, peel, chunk, chop and eat	**Skills** I can wash hands, clean surfaces and be hygienic during the food preparation with adult support. I can say where some foods come from, (i.e., plant or animal) I can describe differences between some food groups (i.e., sweet, vegetable etc.) I can discuss how fruit and vegetables are healthy. I can cut, peel, grate, and squeeze safely, with support. **Knowledge** I know to use a vegetable peeler, knife, grater, and juice, safely, with adult support. I know which food group some of the food I am using comes from. I know what is healthy for me and why. **Vocabulary** sensory vocabulary e.g., soft, juicy, crunchy, sweet, sticky, smooth, sharp, crisp, sour, hard flesh, core, slicing, peeling, cutting, squeezing, choosing, planning, investigating tasting, arranging, popular, design, evaluate, criteria	**Skills** I can explain hygiene and keep a hygienic kitchen. I can describe properties of ingredients and importance of varied diet. I can say where food comes from (animal, underground etc.) I can describe how food is farmed, home-grown, caught. I can describe “five a day.” I can cut, peel and grate with increasing confidence. **Knowledge** I know I need to prepare food safely. I know what a healthy and varied diet should look like. I know where my food comes from. I know what ‘five-a-day’ means and why it is important. **Vocabulary** healthy diet, choosing, dietary requirements	.	**Skills** I can explain how to be safe/hygienic during the food production and storage. I can carefully select ingredients. I can understand ingredients can be fresh, pre-cooked, or processed. I can begin to understand about food being grown, reared, or caught in the UK or wider world. I can describe eat well plate and how a healthy diet=variety / balance of food and drinks. I can explain importance of food and drink for active, healthy bodies. I can use some of the following techniques independently: peeling, chopping, slicing, grating, mixing, spreading, kneading, or baking. **Knowledge** I know why hygienic food preparation and storage is important. I know I need to follow a recipe. I know where my food comes from. I know what the importance of eating a healthy balanced diet is. **Vocabulary** greasy, moist, cook, fresh, savoury hygienic, edible, grown, reared, caught, frozen, tinned, processed, seasonal, harvested, healthy	**Skills** I can begin to understand seasonality of foods. I can understand food can be grown, reared, or caught in the UK and the wider world. I can explain how there are different substances in food / drink needed for health. *I can chop food safely and independently using either the bridge or claw technique **Knowledge** I know that food production is linked closely to the seasons. I know about different food production and processes. I know that food contains vitamins, minerals and trace elements that are vital to a healthy diet. I know I need to use a sharp knife safely. **Vocabulary** spicy, appearance, smell, preference, varied diet, meal planning, protein, vitamins, nutrients and nutrition.	**Skills** I can understand a recipe can be adapted by adding / substituting ingredients. I can explain seasonality of foods. I can learn about some food processing method and how it impacts on the food. I can adapt recipes to change appearance, taste, texture, or aroma. I can describe some of the different substances in food and drink, and how they can affect health. I can prepare and cook a variety of savoury dishes safely and hygienically including, where appropriate, the use of heat source. **Knowledge** I know I need to adapt a recipe to suit dietary requirements. I know what the different processes food can go through and what impact it has on nutrition. I understand that some food has greater health benefits than others. I know I need to use a cooker safely. **Vocabulary** yeast, dough, bran, flour, wholemeal, unleavened, baking soda, spice, herbs fat, sugar, carbohydrate, varied, gluten, dairy, allergy, intolerance, savoury, source, utensils, combine, fold, knead, stir, pour, mix, rubbing in, whisk, beat, roll out, shape, sprinkle, crumble
Technical knowledge Electrical System				**Skills** I can use simple circuit in product. I can incorporate a switch into the product. I can use number of components in circuit. **Knowledge** I know that switches can be used in a circuit. I know why a circuit work.		**Skills** I can incorporate switch/lights/timers into product. I can program a computer to control product. I can think of ways in which adding a circuit would improve product. **Knowledge** I know you can incorporate switches, lights, and timers into my circuit for a purpose.	

				Vocabulary series circuit, fault, connection, toggle switch, push-to-make switch, push-to-break switch, battery, battery holder, bulb, bulb holder, wire, insulator, conductor, crocodile clip control, program, system, input device, output device, user, purpose, function, prototype, design criteria, innovative,		I know I need to programme the computer to control the product. I know I need to build circuits safely. **Vocabulary** reed switch, light dependent resistor (LDR), tilt switch light emitting diode (LED), USB cable, specification, design brief.	