St William of York Catholic Primary School

Progress in Skills: **DT** *(EYFS in separate table below)*

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design	*Begin to think about the purpose of the design and the intended user* *Begin to explore materials, make templates and mock ups e.g. moving pictures/lighthouse*	*State the purpose of the design and the intended user* *Explore materials, make templates and mock ups e.g. moving picture/lighthouse*	*Begin to gather information about the needs and wants of particular individuals and groups* *Begin to develop their own criteria and use these to inform their ideas* *Begin to research designs*	*Gather information about the needs and wants of particular individuals and groups* *Develop their own design criteria and use these to inform their ideas* *Research designs*	*Carry out research, using surveys, interviews, questionnaires and web-based resources identify the needs, wants, preferences and values of particular individuals and groups* ▼ *Develop a simple design specification to guide their thinking* *Recognise when their products have to fulfil conflicting requirements*	
Make	*Follow procedures for safety* *Begin to use and make own templates*	*Follow procedures for safety* *Use and make own templates*	*Begin to measure, mark out, cut and shape materials and components*	*Measure, mark out, cut and shape materials and components with some accuracy*	*Accuratley measure to nearest cm-mm mark out, cut and shape materials and comonents*	*Accurately measure to nearest mm, mark out, cut and shape*

	Begin to measure, mark out, cut out and shape materials and components (supported if needed) *Use simple fixing materials e.g. temporary – paper clips tape and permanent – glue, staples* *Use finishing techniques (including those from art and design)*	*Measure, mark out, cut out and shape materials and components* *Assemble, join and combine materials and components* *Explain reasons for choice of fixing materials* *Think carefully about finishing techniques (including those from art and design)*	*with some accuracy* *Assemble, join and combine materials and components with some accuracy* *Apply a range of finishing techniques, include those from art and design, with some accuracy*		*Accuratley assemble, join and combine materials/components* *Accurately apply a range of finishing techniques, including those from art and design*	*materials and components* *Use techniques that involve a number of steps*
Evaluate	*Begin to investigate and understand – what products are, who they are for, how they are made and what materials are used*	*Investigate – what products are, who they are for, how they are made and what materials are used*	*Investigate – who designed and made the products, where products were designed and made, when products were designed and*		*Investigate – how much products cost to make, how innovative products are and how sustainable the material in products are*	

	Talk about their design ideas and what they are making *Suggest how their products could be improved*	*Make simple judgements about their products and ideas against design criteria* *Evaluating products and components used*	*made and whether products can be recycled or reused* *Identify the strengths and weakensses of their ideas and products* *Consider the views of others, including intented users, to improve their work*		*Critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make* *Compare their ideas and products to their original design specification*	
Technical Knowledge	*Understand about the simple working characteristics of materials and components* *Understand about the movement of simple mechanisms: levers, sliders (Year 1)*	*Understand about the simple working characteristics of materials and components* *Understand about the movement of simple mechanisms: levers, sliders*	*Understand how levers and linages create movement* *Know how to make strong, stiff shell structures* *Understand how pneumatic*	*Understand how cams, pulleys and gears create movement* *Know that a single fabric shape can be used to make a 3D textiles product*	*Understand how more complex electrical circuits and components can be used to create functional products* *Know how to reinforce/strenghen a 3D framework*	*Understand how more complex electrical circuits and components can be used to create functional products* *Understand how to program a computer to*

	Understand about the movement of simple mechanisms: wheels and axles *Understand how freestanding structures can be made stronger, stiffer and more stable*		*systems create movement*		*Know that a 3D textiles product can be made from a combination of fabric shapes*	*control their products* *Understand how to program a compute to monitor changes in the environment / control their products*
Cooking and Nutrition	***Know where food comes from*** *- All food comes from plants or animals* *Prepare simple dishes safely and hygienically, without using a heat sources* *Use techniques such as cutting* *Name and sort foods into the five*	***Know where food comes from*** *- food has to be farmed, grown elsewhere (e.g. home) or caught* *Use appropriate equipment to weigh and measure ingredients* *Know that everyone should eat at least five portions of fruit*	***Know 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* *Know that a healthy diet is made up from a variety and balance of*	*Know that seasons may affect the food available* *Know that food ingredients can be fresh, pre-ccoked and processed* *Know that to be active and healthy, food is neede to provide energy for the body* *Follow a recipe*	*Understand how food is processed into ingredients that can be eaten or used in cooking* *Know that different foods contain different substances – nutrients, water and fibre – that are needed for health* *Understand the need for correct storage* *Measure accurately*	*Know that a recipe can be adapted by adding or substituting one or more ingredients* *Know that recipes can be adapted to change the appearance, taste, texture and aroma* *Work out ratios in recipes*

	groups of the 'eat well' plate	*and vegetable every day* *Understand that food ingredients should be combined according to their sensory characteristics*	*different foods and drinks as depicted in the 'eat well' plate* *Measure using grams*			

Structures		Early Years Foundation Stage	
		Nursery - Junk Modelling	Reception - Boats
Skills	Design	• Making verbal plans and material choices. • Developing a junk model.	• Designing a junk model boat. • Using knowledge from exploration to inform design.
	Make	• Improving fine motor/scissor skills with a variety of materials. • Joining materials in a variety of ways (temporary and permanent). • Joining different materials together. • Describing their junk model, and how they intend to put it together.	• Making a boat that floats and is waterproof, considering material choices.
	Evaluate	• Giving a verbal evaluation of their own and others' junk models with adult support.	• Making predictions about, and evaluating different materials to see if they are waterproof.

		• Checking to see if their model matches their plan. • Considering what they would do differently if they were to do it again. • Describing their favourite and least favourite part of their model.	• Making predictions about, and evaluating existing boats to see which floats best. • Testing their design and reflecting on what could have been done differently. • Investigating the how the shapes and structure of a boat affect the way it moves.
Knowledge	Technical	• To know there are a range to different materials that can be used to make a model and that they are all slightly different. • Making simple suggestions to fix their junk model.	• To know that 'waterproof' materials are those which do not absorb water.
	Additional		• To know that some objects float and others sink. • To know the different parts of a boat.

Structures		KS1 & KS2	
		Year 1 - windmill	Year 4 - Pavilion
Skills	Design	• Learning the importance of a clear design criteria. • Including individual preferences and requirements in a design.	• Designing a stable pavilion structure that is aesthetically pleasing and selecting materials to create a desired effect. • Building frame structures designed to support weight.
	Make	• Making stable structures from card, tape and glue . • Learning how to turn 2D nets into 3D structures. • Following instructions to cut and assemble the supporting structure of a windmill. • Making functioning turbines and axles which are assembled into a main supporting structure.	• Creating a range of different shaped frame structures. • Making a variety of free standing frame structures of different shapes and sizes. • Selecting appropriate materials to build a strong structure and cladding. • Reinforcing corners to strengthen a structure. • Creating a design in accordance with a plan.

			• Learning to create different textural effects with materials.
	Evaluate	• Evaluating a windmill according to the design criteria, testing whether the structure is strong and stable and altering it if it isn't. • Suggest points for improvements.	• Evaluating structures made by the class. • Describing what characteristics of a design and construction made it the most effective. • Considering effective and ineffective designs.
Knowledge	Technical	• To understand that the shape of materials can be changed to improve the strength and stiffness of structures. • To understand that cylinders are a strong type of structure (e.g. the main shape used for windmills and lighthouses). • To understand that axles are used in structures and mechanisms to make parts turn in a circle. • To begin to understand that different structures are used for different purposes. • To know that a structure is something that has been made and put together.	• To understand what a frame structure is. • To know that a 'free-standing' structure is one which can stand on its own.
	Additional	• To know that a client is the person I am designing for. • To know that design criteria is a list of points to ensure the product meets the clients needs and wants. • To know that a windmill harnesses the power of wind for a purpose like grinding grain, pumping water or generating electricity. • To know that windmill turbines use wind to turn and make the machines inside work. • To know that a windmill is a structure with sails that are moved by the wind. • To know the three main parts of a windmill are the turbine, axle and structure.	• To know that a pavilion is a a decorative building or structure for leisure activities. • To know that cladding can be applied to structures for different effects. • To know that aesthetics are how a product looks. • To know that a product's function means its purpose. • To understand that the target audience means the person or group of people a product is designed for. • To know that architects consider light, shadow and patterns when designing.

Mechanisms/mechanical systems		KS1	
		Year 1 - Wheels and axles	Year 2 - Moving monsters
Skills	Design	• Designing a vehicle that includes wheels, axles and axle holders, that when combined, will allow the wheels to move. • Creating clearly labelled drawings that illustrate movement.	• Creating a class design criteria for a moving monster. • Designing a moving monster for a specific audience in accordance with a design criteria.
	Make	• Adapting mechanisms, when: ● they do not work as they should. ● to fit their vehicle design. ● to improve how they work after testing their vehicle.	• Making linkages using card for levers and split pins for pivots. • Experimenting with linkages adjusting the widths, lengths and thicknesses of card used. • Cutting and assembling components neatly.
	Evaluate	• Testing wheel and axle mechanisms, identifying what stops the wheels from turning, and recognising that a wheel needs an axle in order to move.	• Evaluating own designs against design criteria. • Using peer feedback to modify a final design.
Knowledge	Technical	• To know that wheels need to be round to rotate and move. • To understand that for a wheel to move it must be attached to a rotating axle. • To know that an axle moves within an axle holder which is fixed to the vehicle or toy. • To know that the frame of a vehicle (chassis) needs to be balanced.	• To know that mechanisms are a collection of moving parts that work together as a machine to produce movement. • To know that there is always an input and output in a mechanism. • To know that an input is the energy that is used to start something working. • To know that an output is the movement that happens as a result of the input. • To know that a lever is something that turns on a pivot.

			• To know that a linkage mechanism is made up of a series of levers.
	Additional	• To know some real-life items that use wheels such as wheelbarrows, hamster wheels and vehicles.	• To know some real-life objects that contain mechanisms.

Mechanisms/mechanical systems		KS2	
		Year 3 - Pneumatic toys	Year 6 - Automata toys
Skills	Design	• Designing a toy which uses a pneumatic system. • Developing design criteria from a design brief. • Generating ideas using thumbnail sketches and exploded diagrams. • Learning that different types of drawings are used in design to explain ideas clearly.	•Experimenting with a range of cams, creating a design for an automata toy based on a choice of cam to create a desired movement. • Understanding how linkages change the direction of a force. • Making things move at the same time. • Understanding and drawing cross-sectional diagrams to show the inner-workings of my design.
	Make	• Creating a pneumatic system to create a desired motion. • Building secure housing for a pneumatic system. • Using syringes and balloons to create different types of pneumatic systems to make a functional and appealing pneumatic toy. • Selecting materials due to their functional and aesthetic characteristics. • Manipulating materials to create different effects by cutting, creasing, folding and weaving.	• Measuring, marking and checking the accuracy of the jelutong and dowel pieces required. • Measuring, marking and cutting components accurately using a ruler and scissors. • Assembling components accurately to make a stable frame. • Understanding that for the frame to function effectively the components must be cut accurately and the joints of the frame secured at right angles. • Selecting appropriate materials based on the materials being joined and the speed at which the glue needs to dry/set.

	Evaluate	• Using the views of others to improve designs. • Testing and modifying the outcome, suggesting improvements. • Understanding the purpose of exploded-diagrams through the eyes of a designer and their client.	• Evaluating the work of others and receiving feedback on own work. • Applying points of improvement to their toys. • Describing changes they would make/do if they were to do the project again.
Knowledge	Technical	• To understand how pneumatic systems work. • To understand that pneumatic systems can be used as part of a mechanism. • To know that pneumatic systems operate by drawing in, releasing and compressing air.	• To understand that the mechanism in an automata uses a system of cams, axles and followers. • To understand that different shaped cams produce different outputs.
	Additional	• To understand how sketches, drawings and diagrams can be used to communicate design ideas. • To know that exploded-diagrams are used to show how different parts of a product fit together. • To know that thumbnail sketches are small drawings to get ideas down on paper quickly	• To know that an automata is a hand powered mechanical toy. • To know that a cross-sectional diagram shows the inner workings of a product. • To understand how to use a bench hook and saw safely. • To know that a set square can be used to help mark 90° angles

Electrical systems		KS2	
		Year 3 - Electric poster	Year 5 - Doodlers
Skills	Design	• Carry out research based on a given topic (e.g. The Romans) to develop a range of initial ideas. • Generate a final design for the electric poster with consideration to the client's needs and design criteria. • Design an electric poster that fits the requirements of a	• Identifying factors that could be changed on existing products and explaining how these would alter the form and function of the product. • Developing design criteria based on findings from investigating existing products.

		given brief. • Plan the positioning of the bulb (circuit component) and its purpose.	• Developing design criteria that clarifies the target user.
	Make	• 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). • Learn ways to give the final product a higher quality finish (e.g. framing to conceal a roughly cut edge).	• Altering a product's form and function by tinkering with its configuration. • Making a functional series circuit, incorporating a motor. • Constructing a product with consideration for the design criteria. • Breaking down the construction process into steps so that others can make the product.
	Evaluate	• Learning to give and accept constructive criticism on your own work and the work of others. • Testing the success of initial ideas against the design criteria and justifying opinions. • Revisiting the requirements of the client to review developing design ideas and check that they fulfil their needs.	• Carry out a product analysis to look at the purpose of a product along with its strengths and weaknesses. • Determining which parts of a product affect its function and which parts affect its form. • Analysing whether changes in configuration positively or negatively affect an existing product. • Peer evaluating a set of instructions to build a product
Knowledge	Technical	• To understand that an electrical system is a group of parts (components) that work together to transport electricity around a circuit. • To understand common features of an electric product (switch, battery or plug, dials, buttons etc.). • To list examples of common electric products (kettle, remote control etc.). • To understand that an electric product uses an electrical system to work (function). • To know the name and appearance of a bulb, battery, battery holder and crocodile wire to build simple circuits.	• To know that series circuits only have one direction for the electricity to flow. • To know when there is a break in a series circuit, all components turn off. • To know that an electric motor converts electrical energy into rotational movement, causing the motor's axle to spin. • To know a motorised product is one which uses a motor to function.
	Additional	• To understand the importance and purpose of information design. • To understand how material choices (such as mounting	• To know that product analysis is critiquing the strengths and weaknesses of a product. • To know that 'configuration' means how the parts of a

		paper to corrugated card) can improve a product to serve its purpose (remain rigid without bending when the electrical circuit is attached).	product are arranged.

Cooking and Nutrition		KS1	
		Year 1 - fruit and vegetables	Year 2 - A balanced diet
Skills	Design	• Designing smoothie carton packaging by-hand or on ICT software.	• Designing a healthy wrap based on a food combination which work well together.
	Make	• Chopping fruit and vegetables safely to make a smoothie.	• Slicing food safely using the bridge or claw grip. • Constructing a wrap that meets a design brief.
	Evaluate	• Tasting and evaluating different food combinations. • Describing appearance, smell and taste. • Suggesting information to be included on packaging.	• Describing the taste, texture and smell of fruit and vegetables. • Taste testing food combinations and final products. • Describing the information that should be included on a label. • Evaluating which grip was most effective.
Knowledge		• Understanding the difference between fruits and vegetables. • To understand that some foods typically known as vegetables are actually fruits (e.g. cucumber). • To know that a blender is a machine which mixes ingredients together into a smooth liquid. • To know that a fruit has seeds and a vegetable does not.	• To know that 'diet' means the food and drink that a person or animal usually eats. • To understand what makes a balanced diet. • To know where to find the nutritional information on packaging. • To know that the five main food groups are: Carbohydrates, fruits and vegetables, protein, dairy and foods high in fat and sugar.

	• To know that fruits grow on trees or vines. • To know that vegetables can grow either above or below ground. • To know that vegetables can come from different parts of the plant (e.g. roots: potatoes, leaves: lettuce, fruit: cucumber).	• To understand that I should eat a range of different foods from each food group, and roughly how much of each food group. • To know that nutrients are substances in food that all living things need to make energy, grow and develop. • To know that 'ingredients' means the items in a mixture or recipe. • To know that I should only have a maximum of five teaspoons of sugar a day to stay healthy. • To know that many food and drinks we do not expect to contain sugar do; we call these 'hidden sugars'.

Cooking and Nutrition		KS2	
		Year 3 - Eating seasonally	Year 4 - Adapting a recipe
Skills	Design	• Creating a healthy and nutritious recipe for a savoury tart using seasonal ingredients, considering the taste, texture, smell and appearance of the dish.	• Designing a biscuit within a given budget, drawing upon previous taste testing judgements.
	Make	• 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.	• Following a baking recipe, from start to finish, including the preparation of ingredients. • Cooking safely, following basic hygiene rules. • Adapting a recipe to improve it or change it to meet new criteria (e.g. from savoury to sweet).
	Evaluate	• Establishing and using design criteria to help test and review dishes. • Describing the benefits of seasonal fruits and vegetables	• Evaluating a recipe, considering: taste, smell, texture and appearance. • Describing the impact of the budget on the selection of

		and the impact on the environment. • Suggesting points for improvement when making a seasonal tart.	ingredients. • Evaluating and comparing a range of food products. • Suggesting modifications to a recipe (e.g. This biscuit has too many raisins, and it is falling apart, so next time I will use less raisins).
Knowledge		• To know that not all fruits and vegetables can be grown in the UK. • To know that climate affects food growth. • To know that vegetables and fruit grow in certain seasons. • To know that cooking instructions are known as a 'recipe'. • To know that imported food is food which has been brought into the country. • To know that exported food is food which has been sent to another country.. • To understand that imported foods travel from far away and this can negatively impact the environment. • To know that each fruit and vegetable gives us nutritional benefits because they contain vitamins, minerals and fibre. • To understand that vitamins, minerals and fibre are important for energy, growth and maintaining health. • To know safety rules for using, storing and cleaning a knife safely. • To know that similar coloured fruits and vegetables often have similar nutritional benefits.	• To know that the amount of an ingredient in a recipe is known as the 'quantity.' • To know that it is important to use oven gloves when removing hot food from an oven. • To know the following cooking techniques: sieving, creaming, rubbing method, cooling. •To understand the importance of budgeting while planning ingredients for biscuits.

Cooking and Nutrition	KS2	
	Year 5 - What could be healthier?	Year 6 - Come dine with me.

Skills	Design	• Adapting a traditional recipe, understanding that the 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. • Designing appealing packaging to reflect a recipe.	• Writing a recipe, explaining the key steps, method and ingredients. • Including facts and drawings from research undertaken.
	Make	• 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 to make a recipe.	• Following a recipe, including using the correct quantities of each ingredient. • Adapting a recipe based on research. • Working to a given timescale. • Working safely and hygienically with independence.
	Evaluate	• Identifying the nutritional differences between different products and recipes. • Identifying and describing healthy benefits of food groups.	• 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.
Knowledge		• To understand where meat comes from - learning that beef is from cattle and how beef is reared and processed, including key welfare issues. • To know that I can adapt a recipe to make it healthier by substituting ingredients. • To know that I can use a nutritional calculator to see how healthy a food option is. • To understand that 'cross-contamination' means bacteria and germs have been passed onto ready-to-eat foods and it happens when these foods mix with raw meat or unclean objects.	• To know that 'flavour' is how a food or drink tastes. • To know that many countries have 'national dishes' which are recipes associated with that country. • To know that 'processed food' means food that has been put through multiple changes in a factory. • To understand that it is important to wash fruit and vegetables before eating to remove any dirt and insecticides. • To understand what happens to a certain food before it appears on the supermarket shelf (Farm to Fork).

Textiles		EYFS & KS1	
		Reception	Year 2 - Pouches
Skills	Design	• Discussing what a good design needs. • Designing a simple pattern with paper. • Designing a bookmark. • Choosing from available materials.	• Designing a pouch.
	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.	• Selecting and cutting fabrics for sewing. • Decorating a pouch using fabric glue or running stitch. • Threading a needle. • Sewing running stitch, with evenly spaced, neat, even stitches to join fabric. • Neatly pinning and cutting fabric using a template.
	Evaluate	• Reflecting on a finished product and comparing to their design.	• Troubleshooting scenarios posed by teacher. • Evaluating the quality of the stitching on others' work. • Discussing as a class, the success of their stitching against the success criteria. • Identifying aspects of their peers' work that they particularly like and why.
Knowledge		• To know that a design is a way of planning our idea before we start. • To know that threading is putting one material through an object.	• To know that sewing is a method of joining fabric. • To know that different stitches can be used when sewing. • To understand the importance of tying a knot after sewing the final stitch. • To know that a thimble can be used to protect my fingers when sewing.

Textiles		KS2	
		Year 4 - Fastenings	Year 5 - Stuffed toys
Skills	Design	• Writing design criteria for a product, articulating decisions made. • Designing a personalised book sleeve.	• Designing a stuffed toy, considering the main component shapes required and creating an appropriate template. • Considering the proportions of individual components.
	Make	• Making and testing 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. • Working neatly by sewing small, straight stitches. • Incorporating a fastening to a design.	• Creating a 3D stuffed toy from a 2D design. • Measuring, marking and cutting fabric accurately and independently . • Creating strong and secure blanket stitches when joining fabric. • Threading needles independently. • Using appliqué to attach pieces of fabric decoration. • Sewing blanket stitch to join fabric. • Applying blanket stitch so the spaces between the stitches are even and regular.
	Evaluate	• Testing and evaluating an end product against the original design criteria. • Deciding how many of the criteria should be met for the product to be considered successful. • Suggesting modifications for improvement. • Articulating the advantages and disadvantages of different fastening types	• Testing and evaluating an end product and giving point for further improvements.
		• To know that a fastening is something which holds two	• To know that blanket stitch is useful to reinforce the edges

Knowledge	pieces of material together for example a zipper, toggle, button, press stud and velcro. • To know that different fastening types are useful for different purposes. • To know that creating a mock up (prototype) of their design is useful for checking ideas and proportions.	of a fabric material or join two pieces of fabric. • To understand that it is easier to finish simpler designs to a high standard. • To know that soft toys are often made by creating appendages separately and then attaching them to the main body. • To know that small, neat stitches which are pulled taut are important to ensure that the soft toy is strong and holds the stuffing securely.

Digital world		KS2 Year 6 - Navigating the world
Skills	Design	• Writing a design brief from information submitted by a client. • Developing design criteria to fulfil the client's request. • Considering and suggesting additional functions for my navigation tool. • Developing a product idea through annotated sketches. • Placing and manoeuvring 3D objects, using CAD. • Changing the properties of, or combining one or more 3D objects, using CAD
	Make	• Considering materials and their functional properties, especially those that are sustainable and recyclable (for example, cork and bamboo). • Explaining material choices and why they were chosen as part of a product concept. • Programming an N,E, S, W cardinal compass.

	Evaluate	• Explaining how my program fits the design criteria and how it would be useful as part of a navigation tool. • Developing an awareness of sustainable design. • Identifying key industries that utilise 3D CAD modelling and explaining why. • Describing how the product concept fits the client's request and how it will benefit the customers. • Explaining the key functions in my program, including any additions. • Explaining how my program fits the design criteria and how it would be useful as part of a navigation tool. • Explaining the key functions and features of my navigation tool to the client as part of a product concept pitch. • Demonstrating a functional program as part of a product concept pitch.
Knowledge	Technical	• To know that accelerometers can detect movement. • To understand that sensors can be useful in products as they mean the product can function without human input.
	Knowledge	• To know that designers write design briefs and develop design criteria to enable them to fulfil a client's request. • To know that 'multifunctional' means an object or product has more than one function. • To know that magnetometers are devices that measure the Earth's magnetic field to determine which direction you are facing.