The Glapton Academy
A L.E.A.D. Academy

Design and Technology Progression

1 project per term in each class including 1 food project per year. A time allocation of 8-12 hours per project (40-60 minutes per week).

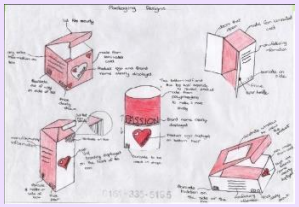
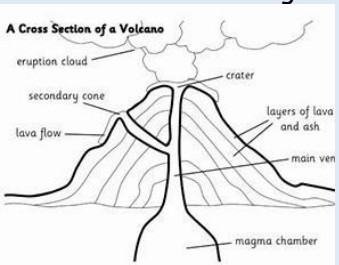
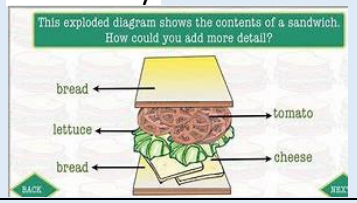
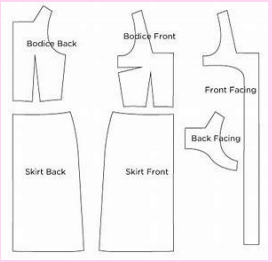
Area	F1	F2
Designing: Understanding contexts, users and purposes	I can create items of personal interest. I can use the environment/images to support the decision of what to create.	I can create items of personal interest. I can use the environment/images to support the decision of what to create. I can say what I am going to make before doing so and can talk about what it will look like. I can create objects for a given purpose (for play or given functionality). I can explain to an adult what I have created and what it is for.
Subject knowledge	Arouse awareness of features in the environment in the setting. Use the local area for exploring the built environment. Give opportunities to design practical, attractive environments e.g. organising equipment outdoors. Help children understand what a work is by using names and labels and by pointing out words in the environment e.g. a wheel is a circle shape. Add child-made books to the book area e.g. books with moving parts. Ensure role-play areas have labels and signs that children can move around.	Encourage children to express opinions on natural and built environments and give opportunities for them to hear different points of view on the quality of the environment. Point out words in the environment e.g. parts of construction kits such as wheel, axle and gear. Carry out activities using instructions, such as reading instructions to make a simple construction kit model. Model writing for a purpose e.g. a shopping list of ingredients for a sandwich. Ensure role-play areas encourage writing of signs with a real purpose e.g. building site.
Vocabulary	**Clifton, Nottingham, England, label, get, put away, shape, circle, rectangle, square, share, shop, park, move**	**Clifton, Nottingham, England, why, where, who, make, like, dislike, circle, square, triangle, rectangle, build, share, wheel, axle, gear, list, sign**
Making: Planning	I can line up some blocks. I can stack blocks one on top of the other for a vertical tower and lay them on the floor in rows. I can make snips in paper while moving the scissors forward across the paper. (6 inches) I can experiment with creating bridges with two blocks supporting. I can experiment with how to balance blocks, and use imagination in construction for example props such as cars and trucks. I can make cuts in paper whilst having a 'helping hand' to begin to cut in straight lines. I can begin to expand my building to take up larger areas of space. I can make enclosures and bridges to become the scenery for imaginative play with props like dolls toys animals and cars.	I can create closes spaces and enclosures. I can expand my building to take up large areas of space due to improved spacial awareness. I can create enclosures and bridges which become the scenery for imaginative play with props like dolls, animals and toy cars. I am beginning to cut a curved line. I can select pieces due to their size and shape to add symmetry and pattern. I can show signs of creativity, as I add accessories to my structures, e.g. vehicles, dolls, furniture, animals, loose parts (scarves, rocks, gems). I can cut around circles, squares and images, confidently changing cutting directions and the angle of hold. I can use small construction materials that join in different ways with confidence.

	I can begin to cut a curved line.	
Subject knowledge	Have large and small boxes available for construction both inside and outside. Encourage children to use scissors and understand they are to be used carefully and they can cut through paper. Children to experiment with blocks of different sizes to create towers, rows, bridges and enclosures.	Support children in thinking about what they want to make, the process involved and the materials they might need. Demonstrate and teach skills and techniques associated with the things children are doing e.g. how to balance bricks so they won't fall down. Demonstrate the language for shape, position and measures in discussions. Encourage estimation e.g. estimate how many sandwiches to make for a picnic. Get children involved in making displays e.g. making their own pictogram of lunch choices.
Vocabulary	**Shape, build, behind, next to, in front of, under, on top, shape, large, small, safety, blocks, stack, tower, bridge, rows, balance, imagination, building.**	**Space, enclosure, building, bridge, scenery, curved line, straight line, size, shape, pattern, symmetry, structure, accessories, circles, squares, join**
Evaluating: Own ideas and products	I can play with my creations.	I can play with my creations. I show pride in my creations, labelling them for safe keeping. I can reflect on my project and say what worked well.
Existing products		
Subject knowledge	Allow children to store and return to their creations. Encourage them to take them to different areas of the environment. E.g. making a boat then testing it out in the water tray.	Allow children to store and return to their creations. Encourage them to take them to different areas of the environment. E.g. making a boat then testing it out in the water tray. Provide paper in construction areas to enable children to label creations. Encourage children to talk about project and reflet on what worked and what didn't.
Vocabulary	**Creation, test, play**	**Creation, test, proud, play, label, reflect, evaluate, like, dislike, worked well, didn't work well, improve**
Technical Knowledge: Making products work	I can imitate how an adult uses tools. I can engage and explore using a range of tools in the environment with the support of an adult. I can say which tools I need for a specific purpose. I can know how to join construction pieces together to build and balance.	I can join constructions pieces together to build and balance. I know when to use specific adhesives (glue stick – paper, PVA – heavier items) and can use them effectively. I know that paper can be joined in several ways and apply this knowledge in my creative work. I can select construction pieces due to their aesthetics, size or function. I can join simple components in 3D structures effectively using a selected method of joining (box modelling).
Subject knowledge	Provide a range of tools for children to explore. Encourage children to consider how to join construction pieces together.	Provide resources for joining things together and combining materials.

Vocabulary	**Tools, Selloptape, glue tick, masking tape, paperclip, plasticine, ruler, straw, scissors**	**Join, construction, build, balance, stick, glue stick, sellotape, PVA glue, split pin, string, ribbon, size, large, small, long, short, 3D, masking tape**
Cooking and Nutrition: Food preparation, nutrition and cooking		I can identify what healthy choices are. I know the importance of making healthy choices. I can talk about why we make healthy choices.
Subject knowledge		Prior to food activities, find out from parents/carers about tasting or handling any food ingredients or products due to allergies, intolerances, cultural or other reasons. Introduce the importance of a healthy diet when evaluating different types of food.
Vocabulary		**Equipment, healthy, food, sugar, energy, taste, touch, feel, smell**

Strands	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Designing: Understanding contexts, users and purposes	I can work within a range of familiar contexts e.g. story-based, school, home, playgrounds. **I can begin to communicate what I am making and who it is for.** **I can describe what my products will be used for through talk.** **I can say how my products will work in simple terms.** **I can say how my products will help the user.**	I can work within a range of contexts e.g. local community, industry and wider environment. **I can explain which products I am making and designing.** **I can discuss whether my products are for myself or someone else.** I can describe what my products	I can work within a range of contexts e.g. home, school, leisure and wider environment. **I can consider a product's purpose and the user/s with growing confidence.** **I can consider the views of others, including intended users.** **I can identify a purpose and establish criteria for a successful product.**	I can confidently work within a range of contexts e.g. home, school, leisure and culture. **I can start to consider the purposes for which I am designing.** **I can gather information about the needs and wants of particular individuals and groups.** **I can develop my own design criteria and use these to inform my ideas.**	I can work within a range of contexts e.g. home, school, leisure, culture, enterprise and the wider environment. **I can discuss and explain the purpose of my products.** **I can begin to use, research from investigations and a range of information sources to develop a design criteria that will inform the design of innovative, functional and appealing products that are fit for purpose.**	I can work confidently within a range of contexts e.g. home, school, leisure, culture, enterprise, industry and the wider environment. **I can confidently explain the purpose of a product by modelling ideas in a variety of ways.** **I can carry out research, using surveys, interviews, questionnaires and web-based resources.**

	I can use a simple design criteria to develop my ideas.	are for in a variety of ways. **I can say how my products will work.** **I can say how I will make my products suitable for their intended users.** **I can use simple design criteria to help develop my ideas.**				I can identify the needs, wants, preferences and values of particular individuals and groups. ***-I can develop a simple design specification to guide my thinking.***
Generating, developing, modelling and communicating ideas	**I can begin to draw on my own experiences to help generate ideas.** **I can begin to develop my ideas through talk and drawing.** I can make templates and mock-ups of my ideas in card and paper or using ICT (Tinker CAD).	**I can generate ideas by drawing on my own and other people's experiences.** **I can use knowledge of existing products to form ideas.** **I can develop and communicate ideas by talking and drawing.** I can model ideas by exploring materials, components and construction kits and by making templates and mock-ups.	**With growing confidence, I can generate ideas for an item considering its purpose and the user.** I can model ideas using prototypes. *I can make my own design decisions.*	**I can start to generate realistic ideas and communicate my ideas through discussion and annotated sketches.** I can model a range of ideas using prototypes. *I can make design decisions that take account of the availability of resources.*	**I can generate, develop, model and communicate my ideas** through: • Discussion • Annotated sketches • Cross-sectional drawings • Exploded diagrams • Prototypes • Pattern pieces • Computer-aided design (Tinker CAD). *I can make design decisions that take account of resources and time.*	**I can generate innovative ideas through discussion, drawing on research.** I can model my ideas using prototypes and pattern pieces. **I can use annotated sketches, cross-sectional drawings and exploded diagrams to develop and communicate my ideas.** I can use computer-aided design (CAD) to develop and communicate my ideas (Tinker CAD). I can *make design decisions, taking*

		I can use ICT to develop and communicate my ideas (Tinker CAD).				*account of constraints such as time, resources and cost.*
Subject knowledge	A product is an object that is made which should fulfil users' needs, wants and purposes.	Components are a part or element of a larger whole, usually a part of a machine or vehicle.	A prototype is a first version of an object from which other forms are developed.	Annotated sketch 	Cross-sectional drawing  Exploded diagrams help when we want to show people the parts or components of the product we are designing, how they fit together and the order of assembly. 	Patterns are made of pieces of paper shapes that are traced onto the fabric to be cut, with each individual pattern piece serving as a part to be sewn. 
Vocabulary	**I can use words such as:** **Product** **Idea** **Mock-up**	**I can use words such as:** **Purpose** **Design** **Component** **Product** **User** **Template** **Mock-up** **Material**	**I can use words such as:** **Product** **Purpose** **User** **Criteria** **Prototype** **Model**	**I can use words such as:** **Purpose** **Product** **Develop** **Design** **Criteria** **Sketch** **Prototype** **Annotate**	**I can use words such as:** **Environment** **Purpose** **Product** **Develop** **Design criteria** **Innovative** **Functional** **Appealing** **Fit for purpose**	**I can use words such as:** **Enterprise** **Purpose** **Product** **Interview** **Questionnaire** **Survey** **Design specification** **Prototype**

					Annotate **Cross-section** **Exploded diagram** **Prototype** **Pattern pieces** **CAD**	**Pattern pieces** **Annotate** **Cross section** **Exploded diagram** **CAD**
<u>Making:</u> Planning	***I can begin to discuss the steps I will take to make a product.*** **I can select and name the tools needed to perform a practical task e.g use scissors for cutting and glue for joining.** I can select materials from a limited range that will meet a simple design criteria.	***I can plan by suggesting the steps I will take next.*** **I can select from a range of tools and equipment, explaining my choices.** I can select from a range of materials and components according to their characteristics.	**I can use a range of tools, materials, components and equipment.** *I can explain my choice of materials and components including function and aesthetics, using some technical vocabulary.*	**I can select a range of tools, materials, components and equipment suitable for the task.** *I can explain my choice of materials and components according to function and aesthetics, using a range of technical vocabulary.* ***I can order the main stages of making.***	**With growing confidence, I can select appropriate materials, tools, components, equipment and techniques.** *I can explain my choice of tools and equipment in relation to the skills and techniques I will be using.* **I can produce appropriate lists of tools, equipment and materials I need.**	I can confidently select a range of tools, components, materials and equipment suitable for the task. *I can confidently explain my choice of tools and equipment using technical vocabulary.* *I can confidently produce an appropriate lists of tools, equipment and materials I need.*
Practical skills and techniques	**I can begin to work safely and hygienically.** I can begin to use materials, components, construction kits, textiles food ingredients and mechanical components. **With help, I can measure, mark out, cut and shape**	**I can follow procedures for safety and hygiene.** I can use a range of materials and components, including construction materials and kits, textiles, food ingredients and mechanical components.	**I can demonstrate techniques safely and hygienically.** I can select a wider range of tools and techniques for making my products e.g. construction materials and kits, textiles, food ingredients, mechanical components and electrical components. **I can measure, mark out, cut and shape**	**I can demonstrate and follow procedures for safety and hygiene purposes.** I can select a wider range of tools and techniques for making my products safely. **I know how to measure, mark out, cut and shape a range of materials, using appropriate tools,**	**I understand and can follow procedures for safety and hygiene.** I can select from and use a wider range of materials and components including construction materials, according to their functional properties and aesthetic qualities. **I can accurately measure, mark out, cut and shape materials and components.**	**I know and can follow the procedures for safety and hygiene.** I can confidently select appropriate tools, materials, components and techniques and use them effectively. **I can accurately measure, mark out, cut and shape materials and**

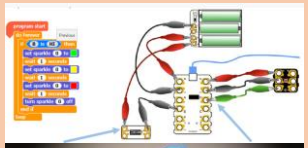
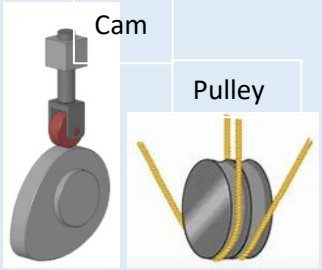
	a range of materials. **I can begin to assemble, join and combine materials and components together e.g. glues or masking tape.** I can begin to use simple finishing techniques to improve the appearance of my product.	**I can measure, mark out, cut and shape materials and components.** **I can assemble, join and combine materials and components.** I can use finishing techniques, including those from art and design.	**materials and components with some accuracy.** **I can start to join and combine materials and components with some accuracy.** I can apply a range of finishing techniques, including those from art and design, with some accuracy.	**equipment and techniques.** **I can assemble, join and combine materials and components with increasing accuracy.** I can use a range of finishing techniques to strengthen and improve designs with increasing accuracy.	**I can accurately assemble, join and combine materials and components.** I can accurately apply a range of finishing techniques, including those from art and design. *I can use techniques that involve a number of steps.* **I can demonstrate resourcefulness when tackling practical problems.**	**components, using appropriate tools, equipment and techniques.** **I can accurately assemble, join and combine materials and components to make working models.** I can use finishing techniques to strengthen and improve the appearance of my product using a range of equipment and ICT. *I can formulate step-by-step plans as a guide to making.* **I can demonstrate resourcefulness when making modifications as I go along .**
Vocabulary	**I can use words such as:** **Material** **Measure** **Mark out** **Cut** **Shape** **Assemble** **Join**	**I can use words such as:** **Material** **Measure** **Mark out** **Shape** **Assemble** **Join** **Combine**	**I can use words such as:** **Material** **Tools** **Component** **Function** **Textiles** **Combine** **Accuracy**	**I can use words such as:** **Materials** **Tools** **Equipment** **Technique** **Accuracy** **Strengthen**	**I can use words such as:** **Materials** **Components** **Technique**	**I can use words such as:** **Tools** **Components** **Materials** **Technique** **Modification**

Evaluating: Own ideas and products	**I can begin to talk about my designs as I develop and identify good and bad points.** **I can begin to evaluate my products and explain what I like and dislike.** ***I can begin to talk about my products' strengths and possible changes I might make.***	**I can talk about my design ideas and what I am making.** **I can make simple judgements about my products and ideas against design criteria.** ***I can discuss what works well and how my products could be improved.***	**I can use a design criteria as I design and make.** **I can start to evaluate my product against original design criteria.** **I can identify the strengths and areas of development in my products** and can consider the views of others to improve my products.	**I can confidently use my design criteria as I design and make.** **I can use my design criteria to evaluate my completed products.** **I can identify the strengths and areas for development in my ideas and products.** I can consider the views of others, including intended users, to compare and improve my work.	**I can evaluate the quality of the design, manufacture and suitability of my products.** *I can evaluate against my original criteria.* **I can evaluate my work during its process.** **I can suggest ways my product could be improved**, seeking evaluation from others.	**I can critically evaluate the quality of the design, manufacture and suitability of my products as I design and make.** *I can evaluate my ideas and products against my original design specification.* **I can evaluate my work both during and at the end.** I can apply research to suggest ways my product could be improved.
Existing products	**I know what products are.** I can discuss how products work, how and where they are used and who they can be used by. **I can select materials which products are made from.** I can say what I like and dislike about products.	**I know and can describe what products are.** **I know who products are for, how and where they might work and be used.** I can recognise what materials products are made from. **I can communicate what I like and dislike about products.**	I know who designed and made the products e.g. Velcro, Dyson vacuum cleaner, Warburton's bread, three-light traffic light. I can discuss where and when some products were designed and made. I know whether products can be recycled or reused. **I can give an opinion on how well products have been designed and reasons for this.**	I know who designed and made the products e.g. electric light bulb, motion picture camera and phonograph, cat's eye. I can discuss where and when products are designed and made. I can identify whether products can be recycled or reused. **I can test and explain how well products have been designed and can give reasons.** I understand why particular materials have been chosen or	I know how much products cost to make. I can investigate and analyse how innovative products are. I can evaluate how sustainable the materials in products are. I understand that products can have an impact beyond their intended purpose. **I can investigate how well products have been designed and made.** I can investigate why materials have been chosen and which methods of	**I know how much products cost to make.** **I can investigate and analyse how a range of innovative products are.** **I can evaluate how sustainable the materials in products are.** **I understand that products can have an impact beyond their intended purpose and discuss this.** **I can investigate and analyse how**

			I understand why certain materials are used to make certain types of products. I can identify methods of construction that have been used to create a product. **I can test how well products work and how purposeful they are.** **I can discuss whether a product meets a user's needs and wants.**	certain methods of construction have been used. **I can test how well products work.** **I can discuss and explain how well products achieve their purpose and can give reasons.** **I can investigate how well products meet user needs and wants.**	construction have been used. **I can investigate how well products work and how well products achieve their purposes.** **I can investigate how well products meet user needs and wants.** **I can evaluate original design criteria and suggest ways it can be improved.**	**well products have been designed and made.** **I can investigate and analyse why materials have been chosen or which methods of construction have been used.** **I can investigate and analyse how well products work and whether they achieve their intended purposes.** **I can investigate and analyse how well products meet user needs and wants.** **I confidently can evaluate original design criteria and suggest ways it can be improved.**
Key events and individuals			**I know about a variety of designers who have developed ground-breaking products.** George De Mestral - Velcro James Dyson – bagless vacuum cleaner	**I know about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products.** Thomas Edison - electric light bulb,	**I can evaluate inventors, designers, engineers, chefs and manufacturers' products who have helped shape the world.** Farnolls Pritchard – architect, first cast-iron bridge Stephen Sauvestre – architect, Eiffel Tower	**I can evaluate the key designs of individuals in design and technology who have helped shape the world.** Samuel F.B. Morse – Morse Code

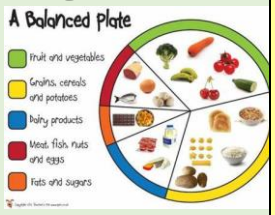
			Thomas Warburton – bread/bakery Garrett Morgan – three-light traffic light, Isambard Kingdom Brunel – engineer, bridges and ships	motion picture camera and phonograph. Percy Shaw – cat's eye Ainsley Harriott - chef	Ole Kirk Christiansen, Lego Jamie Oliver, chef	Normal Foster – architect, The Gherkin Marie Van Brittan-Brown – home security system
Subject knowledge	Materials products are made from: glass, wood, metal, plastic. Ensure a range of materials are displayed.	When looking at a product: Who is the user? What is it made out of? Why was this material chosen? Disassemble the product: How was it made? What is the net like? How does it work?	When something is recycled it is reused or turned into something else. Materials like glass, metal and paper are easy to recycle and certain types of plastic are too. Objects that aren't recycled, such as things that go in the rubbish, are taken to landfill sites. Rubbish gets buried and left to biodegrade.	A phonograph is a device for the mechanical recording and reproduction of sound. It is also called a gramophone or record player. A motion picture camera takes a rapid sequence of photographs on a film. In contrast to a still camera, which takes a single snapshot at a time.	To make a sustainable product use natural materials, materials that can be recycled, reuse materials use zero waste.	Innovative products: self-stirring mug, balcony bridge planters, heated butter knife, pocket sized washing machine
Vocabulary	**I can use words such as:** **Product** **Material** **Like** **Dislike**	**I can use words such as:** **Design** **Product** **Like** **Dislike**	**I can use words such as:** **Product** **Design** **Reuse** **Recycle** **Opinion** **Purpose**	**I can use words such as:** **Design criteria** **Evaluate** **Recycle** **Reuse** **Purpose** **Investigate** **Inventor** **Designer** **Engineer** **Chef** **Manufacturer**	**I can use words such as:** **Evaluate** **Manufacture** **Analyse** **Purpose** **Inventor** **Designer** **Engineer** **Chef** **Manufacturer**	**I can use words such as:** **Product** **Innovative** **Sustainable** **Purpose** **Analyse** **Inventor** **Designer** **Engineer** **Chef** **Manufacturer**

Technical Knowledge: Making products work	I can begin to understand the simple working characteristics of materials and components. I can look at simple hinges, wheels and axles. (The Old Toy Box) I can start to build structures, joining components together. (Travel the World) *I can assemble two fabric shapes. (Arctic Adventures)* *I can use technical vocabulary where appropriate.* *I can combine food ingredients according to their characteristics. (Let it Grow!)*	I understand the simple working characteristics of materials and components. I understand that there are simple mechanisms that can create movement such as levers, sliders, wheels and axles .(Lost!) I can discuss how freestanding structures can be made stronger, stiffer and more stable. (London's Burning!) *I know that a 3D textiles products can be assembled from two identical fabric shapes e.g. mark and cut out 2 identical shapes to make a glove puppet. (Magnificent Materials)* *I know that food ingredients should be*	**I can begin to select tools and materials for designing and making product.** **I can use the correct vocabulary to name and describe a range of materials and tools.** I can discuss how simple electrical circuits and components can be used to create functional products. (Out and About) I know that a computer can be used to control my products. (Out and About) I can begin to make strong, stiff shell structures. (Stone Age to Iron Age) *I know that a single fabric shape can be used to make a 3D textiles product e.g. folding and sewing a piece of fabric to make a cushion. (How does your Garden Grow?)* ***I know that food ingredients can be fresh, pre-cooked and processed.*** *(Healthy Humans)*	I can explain how mechanical systems such as levers and linkages or pneumatic systems create movement. (Gizmos and Gadgets) I understand how electrical circuits and components can be used to create functional products. (Our Changing World) I can program a computer to control my products. (Gizmos and Gadgets) I can make strong, stiff shell structures. (Raiders and Traiders) *I know that a single fabric shape can be used to make a 3D textiles product. (Marvellous Mexico)* *I know that food ingredients can be fresh, pre-cooked and processed. (Marvellous Mexico)*	I understand that mechanical systems such as cams or pulleys or gears create movement. (Out of this world!) I can confidently apply my knowledge of electrical circuits and components to create functional products. I can program a computer to monitor changes in the environment and control my products. I know how to reinforce and strengthen a 3D model. (Out of this world!) I understand that 3D textile products can be made from a combination of fabric shapes. (Adventure to Australia) I can begin to understand that a recipe can be adapted by adding or substituting ingredients. (The Seven Summits)	I understand and can explain how a range of mechanical systems such as cams, pulleys or gears can be used create movement. (Amazing Americas) I know how more complex electrical circuits and components can be used to create functional products. (Bright Sparks) I can program a computer to monitor changes in the environment and control my products. NEED SUPPORT PLEASE I understand how to reinforce and strengthen a 3D model. (Crime and Punishment) *I can explain how 3D textiles products can be made from a combination of fabric shapes. (Amazing Americas)* *I know that a recipe can be adapted by adding or substituting one or*

		combined according to their sensory characteristics e.g. appearance, taste, texture and smell. (Let it Grow!)				*more ingredients. (World War 2)*
Subject knowledge	Hinge – a moveable joint or mechanism on which a door, gate or lid swings as it opens and closes or which connects linked objects. Axle – a rod or spindle (fixed or rotating) passing through the centre of a wheel/group of wheels.	Use words to describe movement: up, down, left, right, vertical and horizontal. As a freestanding structure becomes taller, its centre of gravity rises. Stability in a structure can generally be increased by making the base wider, making the base heavier or adding buttresses. 3D textile products should be created using templates and used to mark out and cut identical fabric shapes.	You can control products using the Crumble kit. This allows connections to switches, drives motors forwards and backwards, lights up LEDs called Sparkles etc. It uses a computer to program the Crumble to control the product.  	Pneumatic systems use air to make things move. When you compress or deflate air out of a container like a syringe it will push the air to fill another container like a balloon. The balloon will inflate. If you release the pressure it will deflate.	Cams are devices which can convert rotary motion into linear motion (movement in a straight line) or activate a linkage. A cam is a specially shaped piece of material, usually metal or hard wearing plastic, which is fixed to rotating shaft.  A pulley is a grooved wheel with a rope, chain or cable running along the groove. Textile materials must be chosen after their physical properties have been explored and evaluated e.g. a travel bag for a teenager needs to be durable, tough and splash proof; a jacket for air cabin crew needs to	Textile products:    Fabric shapes need to be cut to the correct size and shape to encourage the economical use of materials e.g. designing and making pattern pieces for hats and bags where several fabric shapes are combined to make the final product.

		They can be joined together by stitching, gluing or stapling.			be washable without fading and not crease; a play blanket for a toddler needs to withstand rough treatment and colours not run with spills. Fabric samples could be wool, cotton, nylon, old waterproofs, acrylic jumpers, Lycra etc.	
Vocabulary	**I can use words such as:** **Hinge** **Wheel** **Axle** **Fabric** **Combine**	**I can use words such as:** **Lever** **Slider** **Wheel** **Axle** **Structure** **Stiffer** **Stable** **3D** **Textile** **Fabric** **Combine**	**I can use words such as:** **Electrical circuit** **Component** **Shell structure** **Fabric shape** **3D** **Textile** **Pre-cooked** **Processed**	**I can use words such as:** **Lever** **Linkage** **Pneumatic system** **Electrical circuit** **Component** **Program** **Shell structure** **Fabric shape** **3D** **Pre-cooked** **Processed**	**I can use words such as:** **Cams** **Pulleys** **Gears** **Electrical circuit** **Component** **Program** **3D framework** **3D textiles** **Fabric shapes** **Substitute**	**I can use words such as:** **Cams** **Pulleys** **Gears** **Electrical circuit** **Program** **Reinforce** **3D framework** **3D textiles** **Fabric shapes** **Substitute**
Cooking and Nutrition: Where food comes from.	**I can begin to understand that all food comes from plants or animals.** **I can start to understand that food has to be farmed, grown elsewhere (home) or caught.** (Let it Grow!)	**I know that all food comes from plants or animals.** **I know that food has to be farmed, grown elsewhere (home) or caught.** (Let it Grow!)	**I understand that some food is grown (vegetables, grains, grain and crops).** **I understand that some food is reared (pigs, chickens).** **I understand that some food is caught (fish) in the UK, Europe and the wider world.** (Out and About)	**I understand and can identify which food is grown (vegetables, grains, grain and crops) reared (pigs, chickens) and caught (fish) in the UK, Europe and the wider world.** (Our Changing World)	**I understand that seasons may affect the availability of food that is grown, reared or caught.** **I can begin to explain how food is processed into ingredients that can be eaten or used in cooking.** (The Seven Summits)	**I can confidently explain how seasons may affect the availability of food that is grown, reared or caught.** **I understand and can confidently explain how food is processed into ingredients that can be eaten or used in cooking.**

						(Location, Location, Location)
Food preparation, cooking and nutrition.	I am starting to name and sort foods into the 5 groups in The Eat Well Plate (covered in Science). **I am beginning to understand that everyone should eat at least 5 portions of fruit and vegetables every day.** **I know how to prepare dishes safely and hygienically, without using a heat source.** **I know how to use techniques such as cutting, peeling and grating.** (Travel the World)	**I can name and sort foods into the 5 groups in The Eat Well Plate.** **I know that everyone should eat at least 5 portions of fruit and vegetables every day.** **I can prepare simple dishes safely and hygienically, without using a heat source.** **I can demonstrate how to use techniques such as cutting, peeling and grating.** **(Lost!)**	**I am starting to understand that a healthy diet is made up from a variety and balance of different food and drink (The Eat Well Plate).** **I am starting to understand that to be active and healthy, food and drink are needed to provide energy for the body.** **I can prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source (supported by an adult).** **I am beginning to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.** **(Healthy Humans)**	I understand that a recipe can be adapted by adding or substituting one or more ingredient. **I understand that a healthy diet is made up from a variety and balance of different food and drink (The Eat Well Plate).** I know that to be active and healthy, food and drink are needed to provide energy for the body. **I can prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source (supported by an adult).** **I can use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.** (Raiders and Traders)	*I am beginning to understand that recipes can be adapted to change the appearance, taste, texture and aroma.* **I am beginning to understand that different food and drink contain different substances – nutrients, water and fibre – that are needed for health.** **I can prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source (supported by an adult).** **I can use tools such as round-ended knives, vegetable peelers, apple corers and graters to make products e.g. design and make fillings for bread-based products.** (The Seven Summits)	***I know that recipes can be adapted to change the appearance, taste, texture and aroma.*** **I know that different food and drink contain different substances – nutrients, water and fibre – that are needed for health.** **I can prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source (supported by an adult).** **I can use mixing to combine ingredients, rubbing-in to mix fat and flour and kneading when working with bread dough to design and make a range of savoury, baked products.** **(World War 2)**

Subject knowledge	The Eatwell Plate 	5 food groups: -Fruit and vegetables -Grains, cereals and potatoes -Dairy products -Meat, fish, nuts and eggs -Fats and sugars		Kneading is a process in the amking of bread or pasta dough, used to mix the ingreidients and add strength to the final product. 	Seasonal changes in precipitation and temperature affect soil, evaporation rates, river flows, lake levels and snow cover. Leaves fall and plants wither. The changes in vegetation affect the type and amount of food available.	*Common processed foods: cereals, crisps, sausage rolls, pies, meat products (bacon, ham, salami) and ready meals. They have high amounts of salt and sugar.*
Vocabulary	**I can use words such as:** **Fruit** **Vegetables** **Cereals** **Grains** **Dairy** **Meat** **Fish** **Fats** **Sugars** **Portion** **Safely** **Hygiene** **Cutting** **Peeling** **Grating**	**I can use words such as:** **Amount** **Chopping board** **Grater** **Ingredients** **Knead** **Masher** **Measure** **Measuring jug** **Measuring spoons** **Method** **Mixing bowl** **Pastry cutters** **Peeler** **Recipe** **Saucepan** **Scales** **Sieve** **Weigh** **Wooden spoon**	**I can use words such as:** **Energy** **Hygienically** **Savoury** **Peeling** **Chopping** **Slicing** **Grating** **Mixing** **Spreading** **Kneading** **Baking**	**I can use words such as:** **Grams/kilograms** **Hygiene** **Ladle** **Litre/millilitre** **Spatula** **Temperature** **Whisk** **Peeling** **Chopping** **Slicing** **Grating** **Mixing** **Spreading** **Kneading** **Baking**	**I can use words such as:** **Texture** **Aroma** **Substance** **Nutrients** **Fibre** **Savoury** **Peeling** **Chopping** **Slicing** **Grating** **Mixing** **Spreading** **Kneading** **Baking**	**I can use words such as:** **Texture** **Aroma** **Processed** **Peeling** **Chopping** **Slicing** **Grating** **Mixing** **Spreading** **Kneading** **Baking**

**statements in italics are additional to the programme of study for D&T*