*** Bold indicates knowledge**

DT - End Points				
	Design	**Make**		**Evaluate EYFS**
		Structures/Textiles	**Food**	
Nursery	Suggest own ideas and decide which materials to use to express them.	**<u>Nursery</u>** **Know how to make imaginative and complex 'small worlds' with blocks and construction kits** **Name materials such as cardboard boxes, wall paper, cardboard, sequins, paper, tissue paper, felt** **Name different tools for cutting and joining e.g.scissors, masking tape, sellotape, pva glue, pritt stick.** and use these in their work. Explore scale when making. **Know how to use tools safely e.g. scissors, hole punch, pencil.**	**Know that it is important to wash their hands and be able to do this independently** **Know some healthy foods.** **Know how to use tools safely e.g. knives and forks**	Suggest own ideas and decide on how to make their creations better.
Reception		**Name materials such as cardboard boxes, wall paper, cardboard, sequins, paper, tissue paper** and decide which ones to use in their work. **Know different techniques for joining materials and use them in their work** e.g. adhesive tape, different types of glue. **Know how to use a range of tools with increasing care and precision e.g. scissors, hole punches, glue sticks, sellotape.** **Know what crafts people do e.g. potter or bushcraft** and use ideas from what they have learnt in their work **Know why tools need to be used safely** and how to transport and store them. Create collaboratively, sharing ideas, resources and skills.	**Know reasons for variety in food choices.** **Know vocabulary associated with textures of food e.g. lumpy, smooth, crunchy** **Know changes that happen to food when it is exposed to hot and cold temperatures.** **Know how to use, transport and store tools safely e.g. knives and forks** and demonstrates this.	Return to and build on their previous learning, refining ideas and developing their ability to represent them.

	Design	**Structures** **PROJECT PURPOSE** **Make a freestanding structure**	**Food** **PROJECT PURPOSE** **Make a fruit smoothie**	**Mechanisms** **PROJECT PURPOSE** **Make a card**	**Evaluate KS1**
Year 1 **Tools:** Hole Punch Scissors	**Know what a user, purpose and product is** **Know what a design criteria is** and use it to inform their design Be able to draw their design. **Know what a mock up is** and create one for their design where appropriate **Know what appealing means.** **Know that a product has to be appealing and why**	**Know what a structure is.** **Know how to make structures stronger, stiffer and more stable** and demonstrate this in their work. **Know how to join materials purposefully** using a variety of temporary methods e.g. masking tape, glue, sello tape, staples **Know how to apply their knowledge of structures to** make a freestanding structure	**Know simple preparation techniques e.g. bridge and claw grip to cut** and demonstrate them in your work. **Know where a range of fruit and vegetables come from e.g. farmed or grown at home.** **Know that fruit is part of a healthy diet.** **Know ways to work hygienically when preparing food.** **Know how to apply their knowledge of food preparation and healthy eating** to make a fruit smoothie.	**Know that mechanisms produce different types of movement.** **Know that sliders and levers are mechanisms.** **Know the movement of a slider and a lever** and demonstrate how one is constructed. **Know how to follow their design to make a card with a lever and/or slider mechanism.**	**Know what an evaluation is.** Explore and evaluate a range of existing products. Evaluate their product against the design criteria. Be able to discuss how well their product works in relation to the purpose and the user.
	Design	**Textiles** **PROJECT PURPOSE** **Make a finger/hand puppet**	**Food** **PROJECT PURPOSE** **Make a vegetable kebab**	**Mechanisms** **PROJECT PURPOSE** **Make a wheeled toy**	

Year 2	**Know what a user is** and design appealing products for that user. **Know what functional means.** **Know that a product has to be functional** and explain how their design works. **Know the term purposeful** and to create a purposeful product. **Know the purpose of a template** and to use templates in their making.	**Know how simple 3-D textile products are made.** **Know what a template is** and use templates to create two identical shapes. **Know how to join fabrics using different techniques e.g. running stitch, glue and stapling** and demonstrate this. **Know how to do running stitch** **Know different finishing techniques that can be used e.g. using painting, fabric crayons, stitching, sequins, buttons and ribbons** and demonstrate in their work. **Know how to apply their knowledge of stitches and finishing techniques** to make a puppet.	**Know and select appropriate simple preparation techniques e.g. claw and bridge grip to cut and peeling** and demonstrate them in your work. **Know that fruit and vegetables can be farmed or grown at home.** **Know that fruit and vegetables are part of a healthy diet.** **Know that everyone should eat at least five portions of fruit and vegetables every day.** **Know what a varied diet is.** **Know how to apply their knowledge of food preparation and healthy eating** to make a vegetable kebab.	**Know the terms wheel, axle and axle holder.** **Know the purpose of a wheel, axle and axle holder** and demonstrate how these are used. **Know the difference between fixed and freely moving axles.** **Know how to apply their knowledge of wheels and axles** to make a wheeled toy.	
	Design	**Textiles** **PROJECT PURPOSE** **Make a pencil case/purse**	**Food** **PROJECT PURPOSE** **Make sandwiches**	**Mechanisms** **PROJECT PURPOSE** **Make a moving picture**	**Evaluate KS2**
Year 3	**Know how to annotate a sketch** and to produce annotated sketches of their design **Know what a prototype is, what its purpose is** and	**Know how to securely join two pieces of fabric together.** **Know what a seam allowance is.** **Know how to do running**	**Know that a healthy diet is made up from a variety and balance of different food and drink, as depicted in 'The Eat well plate'**	**Know the purpose of a lever and a linkage** and demonstrate how they are used to create movement in their design	**Know how to investigate and analyse a range of different products.** **Know the purpose of testing their product.** Test their product against

	to create a prototype for their design. **Know that products have to have a purpose and be fit for purpose.** **Know about who the intended user is and the purpose of their design** **Know that products need to be functional and appealing.**	**stitch and whip stitch.** **Know the need for patterns and seam allowances.** **Know what a pattern piece is** and use them in the making of the final product. **Know different ways to fasten e.g. button and button hole, velcro and zip** **Know how how to apply their knowledge of stitches, patterns and finishing techniques to make a pencil**	**Know how to use a range of techniques such as chopping (claw & bridge) peeling, grating and spreading** **Know that food can be grown, reared, caught and processed.** **Know where the ingredients come from (e.g. ham from a pig)** **Know how to apply their knowledge of food preparation and healthy eating** to make a sandwich.	**Know the difference between fixed and loose pivots.** **Know how to apply their knowledge of levers, linkages and pivots** to make **a moving picture.**	the original design criteria and with the intended user. **Know how to gather the views of others**. **Know how to identify strengths and areas for improvement.** Evaluate the ongoing work and the final product with reference to the design criteria and the views of others. Continually evaluate and modify the working features of the product to match the initial design specification. Test the system to demonstrate its effectiveness for the intended user and purpose. **Know how key events and individuals in design and technology have helped shape the world**
	Design	**Structures** **PROJECT PURPOSE:** **Make a gift box**	**Food** **PROJECT PURPOSE:** **Healthy Pizzas**	**Electronics** **PROJECT PURPOSE:** **Make a torch**	
Year 4	**Know what an exploded diagram is** and demonstrate in the drawing of their design Generate, develop, model and communicate realistic ideas through discussion and, as appropriate, annotated sketches, **cross-sectional and exploded diagrams.**	**Know what a shell structure is.** **Know what a net is** and use knowledge of nets of cubes and cuboids and, where appropriate, more complex 3D shapes. **Know how to construct strong, stiff shell structures.** **Know how to manufacture a shell structure based on their generated design.**	**Know how to use a range of techniques such as chopping (claw & bridge) peeling, grating and spreading. Use sharp knives.** **know that to be active and healthy, food and drink are needed to provide energy for the body** **Know that a healthy diet is made up from a variety and balance of different food and drink, as depicted in 'The Eat well plate'** **Know that food can be grown, reared, caught and processed.**	**Know how electrical systems are used in their products.** **Know what a series circuit is** and demonstrate how to make a successful circuit **Know the press to make the switch, press to break switch, toggle switch.** **Know what a buzzer is.** **Know what a bulb is.** Apply their understanding of computing to program and control their products.	

			Know where the ingredients come from (e.g. cheese from dairy)		
	Design	**Structures** **PROJECT PURPOSE:** **Make a bird box**	**Food** **PROJECT PURPOSE:** **Make bread**	**Electronics** **PROJECT PURPOSE:** **Make a doorbell**	
Year 5	**Know what innovative means** and generate, develop and model innovative ideas, through discussion, prototypes and annotated sketches. **Know the purpose of research.** **Know how to use research to develop a design criteria to inform the design of products fit for purpose and aimed at individuals or groups.**	**Know how to strengthen, stiffen and reinforce 3-D frameworks**. **Know how to use a junior hack saw, g clamp and bench hook to accurately cut wood.** **Know how to join 2 pieces of wood** e.g. with wood glue, PVA glue, glue gun, hammers and nails **Know how triangulation strengthens structures** **Know how to make a bird box based on their generated design.**	**Know how to use and select appropriate equipment and utensils to prepare and combine food**. **Know the origins of the ingredients needed e.g. flour** **Know the term seasonality** and demonstrate through their ingredient choices. **Know how make bread, based on their design following a recipe.**	**Know how to program, monitor and control a product through computing.** Apply their understanding of computing to program, monitor and control their products. **Know how to draw an electrical circuit.** **Know how to draw a circuit diagram.** **Know how environment change can be an input**	
	Design	**Textiles** **PROJECT PURPOSE:** **Make a phone case**	**Food** **PROJECT PURPOSE:** **Make soup**	**Mechanisms** **PROJECT PURPOSE:** **Make a toy vehicle**	
Year 6	**Know different methods of research e.g. survey, interview, questionnaire.** **Know how research informs a design criteria.** **Know what functional means and design functional products** Generate innovative ideas by carrying out research including surveys, interviews and questionnaires. **Know what Computer Aided Design (CAD) is** and	**Know that a 3-D textile product can be made from a combination of accurately made pattern pieces, fabric shapes and different fabrics.** **Know how fabrics can be strengthened, stiffened and reinforced.** **Know how to use blanket stitch and back stitch.** **Know how to make a phone case based on their generated design.**	**Know how to use and select appropriate equipment and utensils to prepare and combine food** (blenders) **Know how to research the origins of the ingredients needed.** **Know the term seasonality** and demonstrate through their ingredient choices. **Know how to adapt a recipe and measure**	**Know that mechanical systems have an input, process and an output.** **Know what a gear and pulley is** and demonstrate their use in their design **Know how gears and pulleys can be used to speed up, slow down or change the direction of movement.** **Know how to use gears or cams to make a moving toy.**	

	demonstrate how to use CAD to draw their design. Develop, model and communicate ideas through talking, drawing, templates, mock-ups and prototypes and, where appropriate, computer aided design. Design purposeful, functional, appealing products for the intended user that are fit for purpose based on a simple design specification.		**ingredients to make soup.**		