ar	National Curriculum	CM Level Descriptors			
	Autumn 2				
	 design purposeful, functional, appealing products for themselves and other users based on design criteria generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology 	 he/she can make a mock up of his/her design and discuss it. he/she can use IT to explore his/her design ideas. e.g. Use the internet to research design ideas or use a basic paint program to draw his/her design. 			
	 Make select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics Technical knowledge build structures, exploring how they can be made stronger, stiffer and more stable explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products. 	 he/she can roll, fold, tear and cut paper and card. Through exploring and assembly he/she can find ways to make his/her structures more stable so they are freestanding. e.g. The use of a base, overlapping joints. he/she can independently cut wood/dowelling using a hacksaw and bench hook Joining and Finishing he/she can use tape and glue to create temporary joins, fixed joins, & moving joins. he/she can use simple mechanisms in his/her products e.g. Hinges, levers, wheels etc. he/she can use a simple circuit in a model. e.g. A closed circuit with a bulb. Bobbin Tank – could add a bulb on to make it look like its spinning??????			
	 explore and evaluate a range of existing products evaluate their ideas and products against design criteria 	 Evaluate he/she can say what they like and do not like about existing products. he/she can say how well his/her designs and product met the given design criteria. 			

Year 1 Objectives Year 2 Objectives Year 3 Objectives Year 4 Objectives Year 5 Objectives Year 6 Objectives

Spring 1 Food Food use the basic principles of a healthy and varied diet to prepare dishes he/she can name foods from each section of the EatWell plate and understands they understand where food comes from. should eat at least 5 portions of fruit and veg each day. he/she can use the right tools to peel, grate and chop. he/she can read a simple scale to measure and weigh out ingredients. he/she understands that food comes from plants and animals and has to be farmed. grown or caught. Create a cold healthy meal focusing on peeling, grating and chopping e.g. 1. potato salad (potatoes already cooked) 2. pasta salad (pasta already cooked) 3. fresh fruit salad 4. florida salad 5. Healthy savoury wrap (to include measuring quantities) Autumn 2 Design Design design purposeful, functional, appealing products for themselves and other users based on • he/she can tell someone about his/her design design criteria ideas. generate, develop, model and communicate their ideas through talking, drawing, templates, he/she can create a drawing of his/her idea mock-ups and, where appropriate, information and communication technology and templates for his/her design. Make Textiles select from and use a range of tools and equipment to perform practical tasks [for example, he/she can join fabrics using staples and a cutting, shaping, joining and finishing] running stitch

Year 1 Objectives Year 2 Objectives Year 3 Objectives Year 4 Objectives Year 5 Objectives Year 6 Objectives

	select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics	 he/she can decorate textiles using buttons, beads, sequins, braids & ribbons. he/she can cut along straight lines, curved lines and shapes marked out by a template. he/she can colour fabrics using paints to print and paint. Use a template to cut out a pattern and make a stuffed	
	Evaluate ☐ explore and evaluate a range of existing products ☐ evaluate their ideas and products against design criteria	 toy. Use paint to add finer details on face. Evaluate he/she can say what they like and do not like about existing products. he/she can say how well his/her designs and product met the given design criteria. 	
3	Autumn 2		
	 Design use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design 	 Design he/she can generate and develop his/her ideas through discussion. he/she can design products that are functional and designed for purpose. 	
	 Make select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities 	 Textiles he/she can join fabrics using a wider range of stitches. e.g. Back stitch, chain stitch. he/she can choose the most appropriate joining technique to add a decoration to a piece of fabric. he/she can cut slots. he/she can use given sewing patterns or printing blocks to add detail to his/her designs. he/she can use appliqué to decorate by gluing, 	

Year 1 Objectives Year 2 Objectives Year 3 Objectives Year 4 Objectives Year 5 Objectives Year 6 Objectives

and stitching. he/she can cut internal shapes. he/she can create his/her own simple sewing pattern or printing block to use in his/her design. Create a satchel with a flap over lid. Chn to add a button with button hole. What could you use this for? Get chn to use their imagination to create a purpose for it. Chn to create a logo by using either printing or sewing patterns. Evaluate • he/she can explain strengths and weaknesses of existing products. he/she can evaluate his/her work against his/her own design criteria. he/she can discuss and describe well known Evaluate designers and inventors and their work. investigate and analyse a range of existing products evaluate their ideas and products against their own design criteria and consider the views of others to improve their work Spring 2 Food Food understand and apply the principles of a healthy and varied diet he/she understands all sections of the EatWell prepare and cook a variety of predominantly savoury dishes using a range of cooking plate and why they differ in size. he/she can use the right tools to slice, mix, techniques spread, bake and knead. understand seasonality, and know where and how a variety of ingredients are grown, reared, he/she can weigh ingredients to an caught and processed. appropriate level of accuracy. he/she understands that different foods are produced in different areas of the world.

Year 1 Objectives Year 2 Objectives Year 3 Objectives Year 4 Objectives Year 5 Objectives Year 6 Objectives

		 he/she understands that food is processed into different ingredients e.g. Milk into butter. Look at imported food into UK and then use these items to design and make a pasty with home-made pastry or pizza.
5	Autumn 2 Design use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design	 he/she can generate and develop his/her ideas through discussion. he/she can design products that are functional and designed for purpose. he/she can create a cross sectional drawing of his/her design. he/she can use given shapes on a computer program to create a design. e.g. Use a computer-aided design program to create a net for packaging. he/she can design products that are innovative and appeal to individuals or groups. he/she can create a prototype of his/her design. he/she can create an exploded diagram of his/her design. he/she can use a computer design program to communicate his/her ideas. e.g. Use a computer-aided design program to create designs with text and graphics.
	 Make select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic 	 Make he/she can create a shell or frame structure, strengthening with diagonal struts. he/she can use a bradawl to mark hole

Year 1 Objectives Year 2 Objectives Year 3 Objectives Year 4 Objectives Year 5 Objectives Year 6 Objectives

qualities

Technical knowledge

- apply their understanding of how to strengthen, stiffen and reinforce more complex structures
- understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]
- understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]
- apply their understanding of computing to program, monitor and control their products.

positions

- he/she can measure and mark a square section & dowelling to the nearest cm
- he/she can use a hand drill to make tight holes and loose holes.
- he/she can cut accurately to 1mm: strip wood, dowel &square section.
- he/she can use a screwdriver to secure materials with accuracy.
- he/she can select the most appropriate joint for his/her design.
- he/she can use a glue gun with close supervision.
- he/she can build frameworks using a range of materials: wood, card, corrugated plastic.

Joining and Finishing

- he/she can use simple mechanical systems in his/her products e.g. Gears, levers and cams.
- he/she can include a simple electrical circuit in his/her product that produces one outcome e.g. Light or sound.
- he/she can create simple joins with wood. e.g. Butt joint, dowel joint.
- he/she can use a computer program to create a sequence to produce a repeating pattern.
 e.g. A light flashing on and off.
- he/she can select the most appropriate way to join or secure materials within his/her design.
- he/she can include an electrical circuit that produces more than one outcome e.g. Light and sound.
- he/she can use more complex mechanical systems in his/her products e.g. Pulleys and linkages.
- he/she can use a computer program to control

Year 1 Objectives Year 2 Objectives Year 3 Objectives Year 4 Objectives Year 5 Objectives Year 6 Objectives

Evaluate

- investigate and analyse a range of existing products
- evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
- understand how key events and individuals in design and technology have helped shape the world

his/her products. e.g. Using a program which would allow them to program a delay or use of a sensor.

Create a moving toy e.g. a snapping crocodile (with a flashing eye and a buzzer sound) or jumping monkeys using cams.

Evaluate

- he/she can evaluate existing products in relation to their purpose and audience.
- he/she can collect feedback from others to find out how to improve his/her product.
- he/she can explore the impact of well known designers and inventors and how their products helped to shape the world.

Summer 1

Food

- understand and apply the principles of a healthy and varied diet
- prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques
- understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

Food

- he/she understands what different affects food types have on the body. e.g. The impact of eating too much sugar.
- he/she can select the appropriate tools to follow a given recipe to make a savoury dish.
- he/she can estimate amount of ingredients to an appropriate level of accuracy.
- he/she understands how different foods are produced in different areas of the world.
- he/she understands that some foods are seasonal and can give some examples.
- Chn to explore recipes from around the world

 stew and dumplings, spaghetti bolognaise,
 stir fry, curry. Chn to create a meal for a family working out the cost and how much of each ingredient they would need to make it.

Year 1 Objectives Year 2 Objectives Year 3 Objectives Year 4 Objectives Year 5 Objectives Year 6 Objectives

	Chn to work in groups to create the meal making
	enough for each person in the group. When completed
	all chn to sit down together and eat their food.

DT Learning Objectives and Classroom Monitor Level Descriptors

DT Co-ordinator – Helen Moore

Year 1 Objectives Year 2 Objectives Year 3 Objectives Year 4 Objectives Year 5 Objectives Year 6 Objectives

Please note – Within each key stage you will cover textiles, food and mechanical/electrical design only once so the objectives have been grouped. Please use the colour code as progression to help you plan the projects but use your judgement to decide their starting point.