EYFS– One term/DT progression of skills

Project ideas: Stickman puppets, Dinosaur masks, Kite making, Super hero models, Super hero – super foods

EYFS - Cooking and Nutrition	EYFS – DESIGN	EYFS – MAKE	EYFS – EVALUATE	EYFS – Technical knowledge
To begin to understand some of the tools, techniques and processes involved in food preparation. Children to have basic hygiene awareness. Develop fine motor skills, cutting/chopping. Working as a team, sharing equipment. Develop social skills – food hygiene, food types and healthy eating.	Begin to use the language of designing and making for example join, build, shape. Learning about planning and how to come up with an idea but try to make it even better. Be able to talk about what they will make and how.	To learn to construct with a purpose in mind. Be able to select tools and techniques needed to shape, assemble and join materials. To use tools carefully and safely with purpose. Junk modelling as a way of experimenting with construction with freedom. Explore materials when making, show freedom of experimenting.	Begin to talk about changes made during the making process. What went well or not so well and why that may have been. Develop critical thinking.	To learn how to use a range of tools including scissors, stapler, hole punch, rolling pins, pastry cutters. Learn how everyday objects work by dismantling them and investigating as a class. Use of technology box to get used to tools and what they are used for.

Above areas link to KS1 and KS2, however assessment framework differs for EYFS.

The above will link to key areas from the new EYFS framework:

Communication and language: Listening to others, talking about what they are doing and why.

Personal and social development: Be able to share and help each other out as a team

Physical development: Fine motor skills – cutting, joining, chopping.

Playing and exploring: Explore with freedom – colour, function, tools, techniques, design and form.

Active learning: Learning through 'doing'. Remembering the process of making is where the learning is.

Creating and thinking critically: Being able to say what is good or bad about work and why. Begin to think about how it could be made better to formulate foundations of evaluative skills

Year 1 – One term/DT progression of skills

Project ideas: Fruit swords (fruit kebabs), Castle models/structures, moon and stars picture frames, salt dough crowns, soft toys.

Cooking and Nutrition	Developing, planning and communicating ideas	Working with tools, equipment, materials and components to make quality products	Evaluating processes and products	Mechanisms and Construction
Talk about what he/she eats at home and be able to identify healthy foods. Be able to say where some foods come from and give examples of food which is grown. Use simple tools with adult help/supervision to prepare food safely.	Create simple designs for a product. Use pictures and words to explain what he/she wants to do.	Select and use a range of tools and equipment to perform practical tasks for example cutting, shaping, joining and finishing. Use a range of simple tools to cut and join materials safely.	Ask simple questions about existing products and products that he/she has made.	Build structures exploring how they can be made stronger and more stable. Explore and use levers/sliders.

Useful assessment prompts/links to classroom monitor/Learning journal assessment criteria

- I can design and make purposeful and functional products, using pictures and words to describe what I am making.
- I can describe and explain what I am making, how it works and what I need to do next.
- I can explore ideas by rearranging materials (e.g. paper, card, ingredients, fabrics, sequins, buttons, tubes, dowel, cotton reels, paper, card, moldable materials).
- I can name and use given tools for a variety of tasks) e.g. Knife, grater, chopping board, scissors, needles, pins, scissors, templates, glue, tape).
- I can join appropriately for different materials and situations.
- I can explore existing products, saying what I do and do not like about them.
- I can say what I like and do not like about products I have made.
- I can consider and explain how the finished product could be improved.

Year 2 – One term/DT progression of skills

Project ideas: Scone making, D&M Magic wand task, Castles structures, Victorian vehicles, Exploring different ways of decorating fabric.

Cooking and Nutrition	Developing, planning and communicating ideas	Working with tools, equipment, materials and components to make quality products	Evaluating processes and products	Mechanisms and Construction
Understand the need for a variety of food in our diet. Understand that food has to be farmed, grown or caught. Use a wider range of cookery techniques to prepare food safely.	Design purposeful, functional and appealing products for himself/herself and other users based on given design criteria. Generate, develop, model and communicate his/her ideas through drawing, templates, mock-ups, and evidence of using ICT where appropriate.	Choose appropriate tools, equipment, techniques and materials from a wide range. Safely measure, mark out, cut and shape materials and components using a range of tools.	Evaluate and assess existing products and those that he/she has made using given design criteria.	Investigate different techniques for stiffening a variety of materials and explore different methods of enabling structures to remain stable. Explore and use mechanisms e.g. wheels and axels.

Useful assessment prompts/links to classroom monitor/Learning journal assessment criteria

- I can consider how to make products that I have created more appealing.
- I can use drawings with notes to record ideas as they are developed.
- I can discuss my work as it progresses and identify good points and areas to improve throughout the design process.
- I can select and name the tools needed to work the materials. E.g. spoons, cups, needles, yarn, scissors, saws, drills.
- I can select materials from a limited range to meet design criteria.
- I can explore and evaluate existing products.
- I can evaluate my product and its appearance against a design criteria.
- I can build structures and investigate how they can be made stronger and more stable.
- I can use a range of materials to create models with wheels, axels or hinges.
- I can investigate temporary, fixed and moving joins.

Year 3 – Two terms/DT progression of skills

Project ideas: Chocolate bar design and packaging making, Rock cakes, Fair trade food, Roman Trebuchets, Cupcake pin cushion, Shadow puppet theatre.

Cooking and Nutrition	Developing, planning and communicating ideas	Working with tools, equipment, materials and components to make quality products	Evaluating processes and products	Mechanisms and Construction
Talk about the different food groups and name food from each food group (science curriculum link). Understand that food has to be grown, farmed or caught in the UK, Europe and the wider world. Use a wider variety of ingredients and techniques to prepare and combine ingredients safely.	Use knowledge of existing products to design his/her own functional products. Create designs using annotated sketches, cross sectional diagrams and simple computer programmes.	Safely measure, mark out, cut, assemble and join with some accuracy. Make suitable choices from a wider range of tools and unfamiliar materials and plan out the main stages of using them.	Investigate and analyse existing products and those he/she has made considering the design brief and specification.	Understand how pneumatic systems work and be able to use cams to create simple movements. Strengthen frames using diagonal struts.

Useful assessment prompts/links to classroom monitor:

- I can use research to develop the design of functional and appealing products
- I can plan by drawing labelled sketches or writing and discuss this while working.
- I can think ahead about the order of my work and plan tools and materials needed (E.g. Weighing scales, glue gun, ruler).
- I can consider working characteristics of materials.
- I can investigate and analyse a range of existing products.
- I can identify strengths and areas to improve in my own design.
- I can join and combine materials with temporary, fixed or moving joints.
- I can create shell or frame structures and make structures more stable.

Year 4 – two terms/DT progression of skills

Project ideas: Chinese lanterns, Pop up cards, Viking long boats, Clock making, Mad hatters tea party 2 course menu and cooking.

Cooking and Nutrition	Developing, planning and communicating ideas	Working with tools, equipment, materials and components to make quality products	Evaluating processes and products	Mechanisms and Construction
Understand what makes a healthy and balanced diet and that different food and drink provide different nutrients to keep our bodies healthy & active. Understand seasonality and the advantages of eating seasonal and locally produced food. Read and follow recipes which involve several processes, skills and techniques.	Use knowledge of existing products to design a functional and appealing product for a particular purpose and audience. Focus here on introduction to target markets. Create designs using exploded diagrams.	Use techniques which require more accuracy to cut, shape join and finish work. For example, cutting internal shapes and slots in framework structures. Use his/her own knowledge of techniques and the functional and aesthetic qualities of a range of materials and plan how to use them.	Consider how existing products and his/her own products might be improved and how they meet the needs of the user.	Understand and experiment with electrical systems and how they may link to their own products.

Useful assessment prompts/links to classroom monitor:

- I can use research and develop design criteria to design functional and appealing products that are fit for purpose.
- I can consider different ways in which I can creatively record my planning to engage an audience
- I can use tools and equipment, including those needed to weigh and measure ingredients, with accuracy.
- I can join and combine a range of materials, some with temporary, fixed or moving joints.
- I can use investigations of existing products to inform planning of my own product.
- I can check my work as it develops and modify approach in light of progress.
- I can discuss how well my product meets the design criteria and the needs of the user.
- I can create prototypes of shell or frame structures to inform design process.
- I can strengthen frames with diagonal struts.
- I can incorporate a circuit with a bulb or buzzer into a model.

Year 5 – two terms/DT progression of skills

Project ideas: Complex structures – looking at Greek architecture, Story book chairs, Scandinavian food, Aurora and Wonder battery operated night lights.

Cooking and Nutrition	Developing, planning and communicating ideas	Working with tools, equipment, materials and components to make quality products	Evaluating processes and products	Mechanisms and Construction
Understand the main food groups & the specific nutrients that are important for health. Understand how a variety of ingredients are grown, reared, caught and processed to make them safe and palatable to eat. Select appropriate ingredients and use a wide range of techniques to combine them.	Use his/her own market research or client investigation to inform the design of his/her own product. Create prototypes/mock ups to develop ideas and show working.	Make careful and precise measurements so that joints, holes and openings are in exactly the right place. Produce step by step plans to guide his/her making, demonstrating that he/she can apply their knowledge of different materials and processes.	Make detailed evaluations about existing products and his/her own products considering the views of others to improve their work.	Understand how to use more complex mechanical and electrical systems, use of cams. Build more complex 3D structures and apply his/her knowledge of strengthening techniques to make them stronger and more stable.

Useful assessment prompts/links to classroom monitor:

- I can use research and develop design criteria to design innovative, functional and appealing products that are fit for purpose and aimed at particular groups and individuals.
- I can develop and communicate design ideas using annotated sketches, detailed plans, oral and digital presentations.
- I can select and use tools and equipment for a range of uses (E.g. cut and shape ingredients, join fabrics, cut accurately and safely, use bradawl to mark holes, hand drill and pin and tacks during textile work).
- I can join and combine a range of materials and ingredients using appropriate methods (E.g. beating, rubbing in, drilling, gluing, sewing, screwing).
- I can show a clear understanding of the specification and use this to inform decisions.
- I can justify decisions about materials and methods of construction.
- I can evaluate products and use of information sources.
- I can build frameworks using a range of materials.
- I can incorporate motor and a switch into a model.

Year 6 – two terms/DT progression of skills

Project ideas: WW2 menu and 3 course meal on rationing. Pencil case making for Y7. 6R's project on sustainability and links to famous designers.

Cooking and Nutrition	Developing, planning and communicating ideas	Working with tools, equipment, materials and components to make quality products	Evaluating processes and products	Mechanisms and Construction
Confidently plan a series of healthy meals based on the principles of a healthy and varied diet. Use information on food labels to inform choices. Research, plan, prepare and cook a savoury dish applying his/her knowledge of ingredients and his/her technical skill.	Use research he/she has done into famous designers to inform the design of his/her own innovative products. Generate and understand specifications. Generate, develop, model and communicate his/her ideas through discussion, annotated sketches, cross sectional diagrams, exploded diagrams, prototypes, pattern pieces and CAD (computer aided design).	Apply his/her knowledge of materials and techniques to refine and rework his/her product to improve its functional properties and aesthetic qualities. Use technical knowledge and accurate skills to problem solve during the making process (QA and QC).	Use his/her knowledge of famous designers to further explain the effectiveness of existing products and products he/she has made. Be able to evaluate against a specification.	Apply his/her understanding of computing to program, monitor and control his/her product. Use a wide range of methods to strengthen, stiffen and reinforce complex structures and use them accurately and appropriately.

Useful assessment prompts/links to classroom monitor;

- I can use research and exploration to identify and understand user needs when designing a product.
- I can develop and communicate design ideas using annotated sketches, detailed plans, oral and digital presentations and computer based tools.
- I can select from and use specialist tools and techniques for a range of uses.
- I can select from and use a wider range of materials, components and ingredients taking into account their aesthetic properties.
- I can test, evaluate and refine ideas and products against a specification.
- I can justify decisions made during the design process.
- I can evaluate products and use of information sources throughout the process and use this to inform planning.
- I can build complex frameworks using a range of materials to support mechanisms.