

DT curriculum at GMSJ 2023/2024

This curriculum map is correct for the year 2023-2024 (revised September 2023) -SBrown

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Planning and length of topic</p> <p>Planning for each unit is listed in each topic. Should all be in the DT file on the drive</p>	<p>Structures: Taught in Autumn 2 and provision within classroom should also reflect these objectives</p> <p>Textiles: taught in summer 2 and provision within the classroom should also reflect these objectives</p>	<p>Food to be taught as a whole school week</p> <p>Each unit should take 12 sessions 1 afternoon = 2 sessions 6 sessions in total</p>	<p>Food to be taught as a whole school week</p> <p>Each unit should take 12 sessions 1 afternoon = 2 sessions 6 sessions in total</p>	<p>Food to be taught as a whole school week</p> <p>Each unit should take 12 sessions 1 afternoon = 2 sessions 6 sessions in total</p>	<p>Food to be taught as a whole school week</p> <p>Each unit should take 12 sessions 1 afternoon = 2 sessions 6 sessions in total</p>	<p>Food to be taught as a whole school week</p> <p>Each unit should take 12 sessions 1 afternoon = 2 sessions 6 sessions in total</p>	<p>Food to be taught as a whole school week</p> <p>Each unit should take 12 sessions 1 afternoon = 2 sessions 6 sessions in total</p>
<p>Big Concepts with declarative knowledge</p> <p>Structures</p>	<ul style="list-style-type: none"> Junk modelling: manipulating materials, using tools and techniques competently <p>ELG- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</p> <p>ELG- Share their creations, explaining the process they have used.</p>		<ul style="list-style-type: none"> build structures, exploring how they can be made stronger, stiffer and more stable <p>Resources DT association – Homes</p> <p>Projects on a page – Freestanding structures</p>		<ul style="list-style-type: none"> apply their understanding of how to strengthen, stiffen and reinforce more complex structures Develop and use knowledge of how to construct strong, stiff shell structures. Develop and use knowledge of nets of cubes and cuboids and, where appropriate, more complex 3D shapes. <p>Resources DT association – Projects on a page- Shell structures</p>		<ul style="list-style-type: none"> apply their understanding of how to strengthen, stiffen and reinforce more complex structures Understand how to strengthen, stiffen and reinforce 3-D frameworks. <p>Can be put in here as Structures – DT association projects on a page FRAMES</p>
<p>Big Concepts with declarative knowledge</p> <p>Mechanisms</p>		<ul style="list-style-type: none"> explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products. Explore and use sliders and levers. Understand that different mechanisms produce different types of movement <p>Resources Moving Pictures – DT association</p> <p>Projects on a page – year 1 and 2 – Sliders and leavers</p>		<ul style="list-style-type: none"> understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] Understand and use lever and linkage mechanisms. Distinguish between fixed and loose pivots. <p>Resources Levers and linkages - Poster and Support Pack YR3/4/5/6</p> <p>Projects on a page- Levers and linkages</p>		<ul style="list-style-type: none"> understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] Understand that mechanical systems have an input, process and an output. Understand how cams can be used to produce different types of movement and change the direction of movement. <p>Resources Mechanical Toys and Cams – Mechanisms with a message</p>	

						Projects on page - CAMS	
<p><u>Big Concepts with declarative knowledge</u></p> <p>Electrical</p>					<ul style="list-style-type: none"> understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] <p>Resources DT Association – Alarming Vehicles/Moving Vehicles/</p> <p>Projects on a page- year 3 and 4 Simple circuits and switches</p>		<ul style="list-style-type: none"> understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] <p>Resources DT association- developing handmade switches</p> <p>Projects on a page- More complex switches Year 5 and 6</p>
<p><u>Big Concepts with declarative knowledge</u></p> <p>Textiles</p>	<ul style="list-style-type: none"> Selects tools and techniques needed to shape, assemble and join materials (glue, treasury tags, staples, tape) they are using and adapting work – finger puppets/ glove puppets (link to UtW) <p>ELG- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</p> <p>ELG- Share their creations, explaining the process they have used.</p>		<p>Resources DT association- Joining and fastening fabrics</p> <ul style="list-style-type: none"> Understand how simple 3d textile products are made using a template to create 2 identical shapes Understand how to join fabrics using different techniques eg: running stitch, glue, over stitch, stapling Explore different finishing techniques eg: using painting, fabric crayons, stitching, sequins, buttons and ribbons. Know and use technical vocabulary relevant to the project <p>Projects on a page – templates and joining</p>		<p>Resources DT Association – Aprons</p> <ul style="list-style-type: none"> Know how to strengthen, stiffen and reinforce existing fabrics. Understand how to securely join two pieces of fabric together. Understand the need for patterns and seam allowances. <p>Projects on a page – 2d shape to 3d project</p>		<p>Resources DT association - designing with Textiles</p> <ul style="list-style-type: none"> A 3-D textile product can be made from a combination of accurately made pattern pieces, fabric shapes and different fabrics. Fabrics can be strengthened, stiffened and reinforced where appropriate. <p>Projects on a page – Year 5 and 6 – Combining different fabric shapes</p>
<p><u>Big Concepts with declarative knowledge</u></p> <p>Computing</p>				<ul style="list-style-type: none"> apply their understanding of computing to program, monitor and control their products <p>Resources Taught through Junior Jam iprogram unit</p>		<ul style="list-style-type: none"> apply their understanding of computing to program, monitor and control their products <p>Resources Taught through Junior Jam iprogram unit</p>	

<p><u>Big Concepts with declarative knowledge</u></p> <p>Food- to be taught as a food week</p>		<ul style="list-style-type: none"> talk about what he/she eats at home and begin to discuss what healthy foods are say where some food comes from and give examples of food that is grown Use simple tools to help prepare food safely - Cut, peel, grate, chop a range of ingredients. <p>Resources Projects on a page – Preparing fruits and vegetables Year 1 and 2</p> <p>LCC – spring 1 Growth and green fingers</p> <p>To make- Fruit salad/fruit kebabs</p>	<ul style="list-style-type: none"> Use simple tools with help to prepare food safely Understand the need for a variety of food in a diet. Understand that all food has to be farmed, grown or caught. Use a wide range of cookery techniques to prepare food safely-peel, grate <p>Resources Projects on a page – Preparing fruits and vegetables Year 1 and 2</p> <p>LCC- spring 2 – The farm shop</p> <p>To make- A salad – no fruit</p>	<ul style="list-style-type: none"> Talk about the different food groups and name a food from each group Understand that food has to be grown, farmed or caught in Europe and the wider world. Use a wider variety of ingredients and techniques to prepare and combine ingredients safely-boiling/baking <p>Resources Projects on a page – Healthy and varied diet Year 3 and 4</p> <p>LCC autumn 2 – Healthy Humans</p> <p>To make- savoury scones</p>	<ul style="list-style-type: none"> Understand what makes a healthy and balanced diet, and that different foods and drinks provide different substances the body needs to be healthy Understand seasonality and the advantages of eating seasonal and locally produced food Read and follow recipes which involve several processes, skills and techniques <p>Resources Projects on a page – Healthy and varied diet Year 3 and 4</p> <p>LCC summer 2- Hunted</p> <p>To make Soup</p>	<ul style="list-style-type: none"> Understand the main food groups and the different nutrients that are important for health. Understand how a variety of ingredients are grown, reared, caught, processed to make them safe and palatable/tasty to eat. Select appropriate ingredients and use wide range of techniques to combine them <p>Resources Projects on a page – Celebrating culture and seasonality</p> <p>LCC – Autumn 2 – Food Glorious Food</p> <p>To make – something in filo pastry savoury celebration</p>	<ul style="list-style-type: none"> Confidently plan a series of healthy meals based on the principals of a healthy and varied diet. Use information on food labels to inform choices. Research, plan and prepare and cook a savoury dish, applying knowledge of ingredients and technical skills. <p>Resources Projects on a page – Celebrating culture and seasonality</p> <p>LCC- Spring 1- Heroes and Villains</p> <p>To make- A meal for a primary school child designed for health and nutrition.</p>
<p><u>Procedural knowledge</u></p> <p>Design iterative process of designing and making.</p>	<ul style="list-style-type: none"> Begin to show accuracy and care when drawing. 	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> use research and develop design criteria to inform the design of functional 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 	<ul style="list-style-type: none"> use research and develop design criteria to inform the design of innovative and appealing products that are fit for purpose, aimed at particular individuals or groups generate, develop, model and communicate their ideas through discussion, prototypes, pattern pieces and computer-aided design 			
<p><u>Procedural knowledge</u></p> <p>Make iterative process of designing and making.</p>	<ul style="list-style-type: none"> Use a range of small tools, including scissors, paint brushes and cutlery; Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function; 	<ul style="list-style-type: none"> 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 wider range of materials and components, including construction materials, textiles and ingredients, according to their characteristics 	<ul style="list-style-type: none"> select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, accurately select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties 	<ul style="list-style-type: none"> select from and use a wider range of tools and equipment to perform practical tasks [for example 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 			
<p><u>Procedural knowledge</u></p> <p>Evaluate</p>	<ul style="list-style-type: none"> Share their creations, explaining the process they have used; 	<ul style="list-style-type: none"> explore and evaluate a range of existing products evaluate their ideas and products against design criteria 	<ul style="list-style-type: none"> investigate and analyse a range of existing products evaluate their ideas and products against their own design criteria 	<ul style="list-style-type: none"> investigate and analyse a range of existing products and explain the effectiveness of them evaluate their ideas and products against their own design criteria and consider the views of others to improve their work 			

						<ul style="list-style-type: none"> understand how key events and individuals in design and technology have helped shape the world 	
Cultural Capital	<ul style="list-style-type: none"> making for a purpose hands on experience of products already out there design, make, evaluate 						
vocab		Levers- slider, lever, pivot, slot, bridge/guide	textiles- mark out, decorate, finish, join, stitch structures- cut, fold, join, fix, structure, wall, tower,	levers and linkages- pivot, slot, bridge, guide system linear, rotary, oscillating, reciprocating	textiles- fastening, compartment, zip, button, stitch, seam, seam allowance electrical- series circuit, fault, connection, insulator, conductor, structures- three-dimensional (3-D) shape, scoring, shaping, tabs, adhesives, joining, assemble	mechanisms- cam, axle, shaft, crank, handle, housing, framework, rotation, rotary motion, structure- frame structure, stiffen, strengthen, reinforce, triangulation, stability, electrical- series circuit, parallel, circuit, input device, output device, system, monitor, control, program, flowchart textiles- wadding, reinforce, hem, template, pattern pieces	
STEM SENTENCES		Mechanisms A slider is a rigid bar which moves backwards and forwards in a straight line. A slot is a hole through which a lever is placed to enable a lever to move. A guide is a short piece of cardboard used to keep the slider in place and control movement.	Structures A freestanding structure can stand up by itself. A frame structure is made by thin components. Stability in a structure can be increased by building a wider base. Textiles A glove puppet fits over the hand and fingers operate its head and arms. When we sew we join two fabrics together with a stitch. A seam is a row of stitches which join fabrics together. Applique is added as decoration to fabrics.	Levers and Linkages A mechanism is a device used to create movement in a product. A lever is a rigid bar that moves around a pivot. A linkage is the card strips joining one or more levers to produce the type of movement required. The slot is the hole through which a lever is placed to enable part of a picture to move	A circuit is a path through which electricity passes. A system is a set of related parts or components that together achieve a desired outcome.	A cam mechanism is made up of three components: a cam, slider and follower. The mechanism causes components to move. A cam mechanism is a linkage system which has a follower to convert rotary movement to linear movement,	The use of triangulation strengthens a structure.

How DT begins at GMSJ

The EYFS Curriculum is planned to meet the end of year expectations of the Early Learning Goals, assisted by Development Matters.

Children at the expected level of development will:

- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function
- Share their creations, explaining the process they have used
- Make use of props and materials when role playing characters in narratives and stories. .

How we assess in DT

We want to assess the progress children make within and across a topic/s .

To enable this a spider diagram will be completed at the start of the themed learning where the child/ren record what they already know about this. This is recorded in their book.

This same spider diagram is revisited at the end of learning sequence and further annotated with what the child/ren knows/can do.

Whilst marking this, staff will annotate a simple assessment grid. Termly Pupil Conferences, which will facilitate book looks, will add to the overall assessment of Design Technology.