



# Join the faith and learning journey



## Key Facts and Vocabulary Progression 2024

### Design and Technology

N U R S E R Y	AREA OF STUDY and KEY FACTS	Vocabulary
	Marian : <b>Me and My Community</b>	
	Scissors are used for cutting various materials such as paper, card and foil.	scissors, cut, snip, chop, tool, safely.
	Remembrance : <b>Starry Night</b>	
	Glue is an adhesive that can join 2 materials together.	stick, adhesive, join, connect, collage.
	Candlemas: <b>Once Upon a Time</b>	
	Construction kits are used for building.	construct, build, walls, roof, chimney.
	Lenten: <b>Dangerous Dinosaurs</b>	
	A building can be designed using mark-making materials.	design, plan, draw, change.
	Rosary: <b>Big Wide World</b>	
A hammer is a hand held tool.	tool, hit, nail, safely, bang.	
Trinity: <b>Sunshine and Sunflowers.</b>		
A recipe is a set of instructions that describe how to make something.	recipe, instructions, follow, create.	
R E C	AREA OF STUDY and KEY FACTS	Vocabulary
	Marian- <b>Let's Explore</b>	
	1. Vehicles and machines have wheels and axels.	vehicle, car, , machines, wheels, axels
	Remembrance- <b>Marvellous Machines</b>	
	1. A machine is a man made device.	machine, man made, aeroplanes, cars, buses, lorries, boats, helicopters, diggers,
Candlemas- <b>Long Ago</b>		



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E P T I O N	1. Different tools are needed for different tasks.	tools, spanners, nails, levels
	Lenten- <b>Animal Safari</b>	
	1. Ingredients are used for baking.	
	Rosary- <b>Ready, Steady, Grow</b>	
	1. A design can be altered and changed.	
Y E A R 1	Trinity- <b>On the Beach</b>	
	1. Boats are vessels for travelling over water, which are propelled by oars, sails or an engine.	
	AREA OF STUDY and KEY FACTS	Vocabulary
	Marian : Shelter	
	1. A shelter is a structure with a purpose. 2. Shelters can be permanent, like a house or garage, or temporary, like a tent or gazebo. 3. Structures should have strong, sturdy supports that are joined so that they do not move. 4. Shelters are made from materials. 5. Design criteria are the explicit goals that a project must achieve.	Opaque - a material that cannot be seen through. Permanent - to last forever (or at least a long time.) Temporary - not intended to last for very long. Transparent - a material that can easily be seen through. Shade - a place/structure that offers protection from sunlight.
	Remembrance	
	Candlemas	
	Lenten Taxi!	

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	<ol style="list-style-type: none"> <li>1. Taxis are vehicles that carry passengers from one place to another.</li> <li>2. Vehicles with wheels are constructed with a chassis and an axle.</li> <li>3. The chassis is the frame of the vehicle.</li> <li>4. An axle is a rod that is connected to the chassis and goes through the centre of a wheel (allowing it to turn).</li> <li>5. Moving axles turn freely so the wheels are fixed to them (the axle turns rather than the wheel.)</li> </ol>	<div data-bbox="1368 384 1868 751" style="border: 1px solid black; padding: 5px;"> </div> <p>Wheel Chassis Axle Vehicle: A human-made object that transports people or things, especially on land. Dowel - wooden rod that can be round or square edges to use as an axle.</p>
Rosary		
Trinity : Chop, slice, mash	<ol style="list-style-type: none"> <li>1. Food is what animals consume to give us nutrients and energy.</li> </ol>	<p>product something that is made- not found naturally. tool : a piece of equipment that makes a job easier.</p>



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	<ol style="list-style-type: none"> <li>Some foods come from animals, such as meat, fish and dairy products. Other foods come from plants, such as fruit, vegetables, grains, beans and nuts.</li> <li>Specific tools are used for particular purposes.</li> <li>To name hygiene rules when preparing food.</li> <li>Knives are used for slicing and chopping, a grater is used for grating, a vegetable peeler is used for peeling and a masher is used for crushing.</li> </ol>	<p>mashing - a form of crushing and separating food into small pieces.</p> <p>grating : a process that shreds food into small pieces</p> <p>peeler: a tool that removes the skin from smaller fruit and vegetables.</p>
Y E A R 2	<b>AREA OF STUDY and KEY FACTS</b>	<b>Vocabulary</b>
	Marian : Lighthouses	Human Feature      Made or built by humans
	<ol style="list-style-type: none"> <li>Lighthouses are tower-like buildings that emit light to navigate ships or pilots.</li> <li>Structures can be made stronger, stiffer and more stable by using cardboard rather than paper.</li> <li>Using triangular shapes at corner fixing, rather than squares, make a structure stronger.</li> <li>A broader base will also make a structure more stable.</li> <li>Finished products can be compared with design criteria to evaluate success.</li> </ol>	Lighthouse      A tower that has a light or beacon to warn ships at sea of danger.
		Butt joint      Two pieces of material are joined by placing their ends together without any special shaping.
		Triangular corner      Two pieces of material are joined together at right angles with a triangle piece to strengthen them.
	Remembrance	



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Candlemas	
Lenten :Push and Pull - pop up cards	
<ol style="list-style-type: none"> <li>1. A pop-up, within a card, is a shape that moves to create a 3-D effect rather than a 2D picture.</li> <li>2. A mechanism is a device that takes one type of motion or force and produces a different one.</li> <li>3. A mechanism, such as: sliders, levers, linkages, gears, pulleys and cams makes a job easier to do as less human energy is required.</li> <li>4. A slider mechanism moves in a straight line. This can be up and down or from side to side.</li> </ol>	<p>mechanism - a system of components that work together within a machine.</p> <p>lever - a mechanism consisting of a bar that moves around a fixed pivot.</p> <p>pivot - a fixed point, on which something turns or balances.</p> <p>linkage - a mechanism consisting of two or more bars joined together by pivots</p> <p>slider- a simple mechanism that consists of a slider and slider guide that moves in a straight line.</p>
Rosary	
Trinity: Cut stitch and join	
<ol style="list-style-type: none"> <li>1. Products can be joined by stitching or glueing.</li> <li>2. A sewing pattern is a template of the parts needed to make a garment or product.</li> <li>3. Pattern pieces are usually made from paper - although they can be made from fabric too.</li> <li>4. A running stitch is a basic stitch that is used to join fabric.</li> <li>5. Running stitch is made by passing a needle in and out of fabric at an even distance.</li> </ol>	<p>Binca - rectangular fabric with holes in to learn sewing techniques.</p> <p>applique- decorative needlework where pieces of fabric are sewn or stuck onto a larger pattern.</p> <p>motif -an image or design that can be repeated to create a pattern.</p> <p>sequin - a small, shiny metal or plastic disc.</p> <p>textile - a fabric made by hand or machine.</p>



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Y E A R 3	AREA OF STUDY and KEY FACTS	Vocabulary
	Marian : Making it move	
	<ol style="list-style-type: none"> <li>1. Particular products have been designed for specific tasks, such as scissors.</li> <li>2. Levers consist of a rigid bar that rotates around a fixed point, called a fulcrum. They reduce the amount of work needed to lift a heavy object.</li> <li>3. Linkages combine slider (Y1) and lever mechanisms.</li> <li>4. Cams are devices that can convert circular motion into up-and-down motion. They are attached to a bar called a follower.</li> <li>5. As the cams are different shapes, they make the follower move up and down in a different pattern. They are called :heart cam, circular cam and snail cam.</li> </ol>	<p>product - an item designed for usually one specific task or purpose.</p> <p>cam - a device that creates an up and down motion, which usually work in a pattern of two or three.</p> <p>fulcrum - the point where a lever is placed to gain traction or support.</p> <p>force - strength or energy linked to action or movement</p> <p>motion - movement where an object changes position.</p>
	Remembrance	
	Candlemas : Cook well, eat well.	
	<ol style="list-style-type: none"> <li>1. Humans have to get nutrition from what they eat.</li> <li>2. It is important to have a balanced diet made up of the main food groups, including proteins, carbohydrates, fruit and</li> </ol>	<p>mineral - a chemical that your body needs to stay healthy.</p> <p>nutrient - any substance that your body needs to live and grow</p>

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	<p>vegetables, dairy products and alternatives, and fats and spreads.</p> <ol style="list-style-type: none"><li>Humans need to stay hydrated by drinking water.</li><li>Key inventions in design and technology have changed the way people live.</li><li>Cooking some foods improves taste, helps digestion and kills bacteria that could be harmful for humans.</li></ol>	<p>vitamin - a natural substance that is needed in small amounts for the growth and repair of the body.</p> <p>protein - an essential nutrient that the body uses as a fuel source.</p> <p>carbohydrates: sugar molecules that your body breaks down and your body uses as an energy source.</p>
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Key Facts and Vocabulary Progression 2024

Design and Technology



The size of each segment represents the proportion of our daily diet that should be made up of that food group. Foods high in fat, salt and sugar are not part of the Eatwell Guide. They should only be eaten occasionally and are not part of a healthy balanced diet.

**Carbohydrates**

Carbohydrates give us energy and keep our digestive system working well. They should make up about a third of the food we eat every day.

**Proteins**

Proteins help us to build muscle and allow our bodies to grow and repair. Foods high in protein should make up about one-tenth of our daily diet.

**Dairy and alternatives**

These contain calcium, which is an important mineral for healthy bones and teeth. Dairy and alternatives should make up less than one-tenth of the food we eat every day.

**Oils and spreads**

These contain fat, which is an essential part of our diet. Fat provides important nutrients and helps us to absorb some vitamins. Oils and spreads should only make up a very small part of our diet.



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	Lenten	
	Rosary: Tomb builders	
	<ol style="list-style-type: none"> <li>1. Ancient tomb builders, such as the Egyptians, used heavy stones to make the pyramids. They were moved by early machines.</li> <li>2. An inclined plane is a slope that can help move heavy objects between two levels as it is a smooth surface with little friction.</li> <li>3. A pulley can lift or lower any object, with force being placed on one point of the payload (object to move).</li> <li>4. The Egyptians engineered their tombs so that they would be very hard to open, if found, as they contained many riches.</li> <li>5. Egyptians used three types of tombs - mastabas, pyramids and rock-cut chambers.</li> </ol>	<p>Force - a push/pull that makes an object change shape or direction.</p> <p>friction - the force between two surfaces when they rub together.</p> <p>tomb - an underground chamber for burying the dead.</p> <p>mastaba - a flat roofed, cuboid like structure with sloping sides for buying the Egyptian dead. They were made from mudbricks.</p> <p>pyramid - a large stone structure with triangular sides - usually reserved for burying important civilians.</p>
	Trinity	
	AREA OF STUDY and KEY FACTS	Vocabulary
	Marian :	
	Remembrance: Greenhouse	



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## Key Facts and Vocabulary Progression 2024

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<b>Y E A R 4</b>	<ol style="list-style-type: none"> <li>Greenhouses are a frame structure, usually made from metal or wood, with transparent windows to reflect heat.</li> <li>The stronger the base; the stronger the overall structure - especially when the structure is a frame.</li> <li>For a pitch roof, there needs to be 45 degree angles cuts if wood is used, to ensure that roof beams meet accurately.</li> <li>When cutting wood, goggles should be used to protect the eyes from any dust</li> <li>Wood beams are normally connected by nailing for large frames and glueing for small frames.</li> </ol>	<table border="1"> <tr> <td>Frame</td> <td>A structure where the corners and upright posts are the main parts.</td> </tr> <tr> <td>Hack saw</td> <td>A type of small saw with sharp blade.</td> </tr> <tr> <td>Mitre block</td> <td>A cutting tool with 45 / 90 grooves for precision.</td> </tr> <tr> <td>Pitch roof</td> <td>A roof that has an agle at an elevation and is not therefore flat..</td> </tr> <tr> <td>Greenhouse</td> <td>Mostly transparent glass structure.</td> </tr> </table>	Frame	A structure where the corners and upright posts are the main parts.	Hack saw	A type of small saw with sharp blade.	Mitre block	A cutting tool with 45 / 90 grooves for precision.	Pitch roof	A roof that has an agle at an elevation and is not therefore flat..	Greenhouse	Mostly transparent glass structure.
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	Greenhouse	Mostly transparent glass structure.										
	Candlemas											
	Lenten: Good food: fresh food											
	<ol style="list-style-type: none"> <li>Food that is left for a while deteriorates as it is attacked by micro-organisms.</li> <li>Freezing food will keep it fresh but it may affect taste.</li> <li>Appearance is so important if you want people to eat your food.</li> <li>Before preparing, ensure that the area is clean and you have the correct utensils.</li> <li>If you can grow your own vegetables and herbs, they will be pesticide free.</li> </ol>	<table border="1"> <tr> <td>texture</td> <td>Feel or appearance of the food</td> </tr> <tr> <td>taste</td> <td>Flavour - : salty, sweet, spicy etc.</td> </tr> <tr> <td>processed</td> <td>Food that has has chemicals odded or a mechanical process too keep it freh.</td> </tr> <tr> <td>seasonal</td> <td>The time of year a food is available or at its best.</td> </tr> <tr> <td>harvested</td> <td>To take from the ground or tree (if a plant).</td> </tr> </table>	texture	Feel or appearance of the food	taste	Flavour - : salty, sweet, spicy etc.	processed	Food that has has chemicals odded or a mechanical process too keep it freh.	seasonal	The time of year a food is available or at its best.	harvested	To take from the ground or tree (if a plant).
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Rosary												



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	Trinity: Fancy Fabrics	<p><b>appliqué</b> Decorative needlework where small pieces of fabric are sewn or stuck onto a larger piece to form a pattern.</p> <hr/> <p><b>motif</b> An image or design that can be repeated to create a pattern.</p> <hr/> <p><b>synthetic</b> Made from artificial substances rather than natural ones.</p>
	<p>1. There are a variety of joining techniques (fabrics) and choosing the right one is important to ensure a high quality finish.</p> <p>2. Fabrics can be natural or synthetic. Natural fabrics include cotton, silk and wool.</p> <p>3. Synthetic fabrics include Lycra, polyester and nylon.</p> <p>4. A hem runs along the edge of a piece of cloth or clothing. It is made by turning under a raw edge and sewing to give a neat and quality finish.</p>	<p>applique - decorative needlework where small pieces of fabric are sewn onto a larger piece to form a pattern.</p> <p>motif - an image or design that can be repeated to create a pattern.</p> <p>synthetic - made from artificial substances rather than natural ones.</p> <p>needle - sharp edges device for going through fabric and sewing.</p> <p>eye - the part of the needle where the thread goes through to begin sewing.</p>
Y E A	AREA OF STUDY and KEY FACTS	Vocabulary
	<p>Marian : Stuffed toys</p> <p>1 There are a variety of techniques for joining fabrics. Some are better for joining and others are better for a refined finish.</p> <p>2. Back stitch is a strong stitch and is better for anything that is stuffed.</p> <p>3. Back stitch can hide loose thread inside an item.</p> <p>4. A combination of running and back stitch can be used to strengthen for a specific purpose.</p>	<p>Computer-aided design : Computer aided design is used to aid in the modification, creation, analysis and optimisation of a design.</p> <p>Design specification: a detailed document that demonstrates what a process or product should present.</p> <p>Adaption: The series of processes of adapting or being adapted.</p>



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R 5	Remembrance : Eat the seasons	
	Candlemas	
	Lenten	
	<ol style="list-style-type: none"> <li>1. Seasonality is the time of year when the harvest or flavour of a type of food is at its best. - Buying seasonal food is beneficial for many reasons: the food tastes better; it is fresher because it hasn't been transported thousands of miles; the nutritional value is higher; the carbon footprint is lower. Due to reduced transport; it supports local growers and is usually chosen.</li> <li>2. Sweet dishes are usually desserts, such as cakes, fruit pies and trifles.</li> <li>3. Savoury dishes usually have a salty or spicy flavour rather than a sweet one.</li> <li>4. A balanced diet gives your body all of the nutrients that it needs to function correctly. THIS means eating a wide range of foods in the correct proportions.</li> <li>5. Food hygiene is important to prevent the spread of disease-causing microorganisms.</li> </ol>	<p>Seasonality: the times of year when a type of food is at its peak - either in times of harvest or flavour. This is usually when the product is cheapest and freshest to the market.</p> <p>Nutritional values: Nutritional value (or nutritive value) as part of food quality is the measure of a well-balanced ratio of the essential nutrients: carbohydrates, fat, protein, minerals and vitamins in items of food or diet concerning the nutrient requirements of their consumer.</p> <p>Grower - the person who plants the seeds, nurtures the crop and may eventually harvest it.</p> <p>Sauteing ; a method of cooking that uses a small amount of oil or fat in a shallow pan over relatively high heat.</p> <p>Carbon footprint: the total greenhouse gas emissions caused by an individual, event, organisation, service, place or product, expressed as a carbon dioxide equivalent.</p>
	Rosary : Moving mechanisms	
		pneumatic : operated by pressure by using air or gas



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	<ol style="list-style-type: none"> <li>1. A pneumatic system uses air to exert a force. This force is used in pneumatic jacks to lift vehicles, in paint sprayers to force paint out at high speed or in jackhammers to break up pavements and in brakes (e.g for a bus or train).</li> <li>2. Pneumatic systems use energy that is stored in compressed air to do the work.</li> <li>3. Different mechanisms and systems can work together to perform a function.</li> <li>4. Safety features are included and planned into designs as part of good practise.</li> <li>5. Engineers test designs carefully and evaluate against set criteria before completion.</li> </ol>	<p>hydraulic: pressure controlled liquid, normally with a cylinder.</p> <p>compressed : flattened or squeezed by pressure</p> <p>engineer: a person who designs, build or maintains machines.</p> <p>draughtsman: a person who makes detailed, technical plans or drawings.</p>
	Trinity	
Y E A R 6	AREA OF STUDY and KEY FACTS	Vocabulary
	Marian -	
	Remembrance : Make do and mend	<p><b>coupon</b> A voucher entitling the holder to buy a certain amount of a rationed item.</p> <hr/> <p><b>darn</b> A way to mend a hole in knitted fabric by interweaving yarn.</p> <hr/> <p><b>rationing</b> The system that limits the amount of something that a person is allowed to buy when resources are scarce.</p> <hr/> <p><b>repurpose</b> To find a new use for a used item.</p>

Photos from: Getty Images/The National Archives, Ray Moreton



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	<ol style="list-style-type: none"> <li>1. Deconstructing garments identifies how they were made and can give ideas how to create other similar items.</li> <li>2. Whip stitch is used to join fabrics with straight edges or to create a seam.</li> <li>3. Rips in clothing can be repaired by sewing a piece of similar fabric on the underside of the fabric to cover the rip.</li> <li>4. Upcycling means re-using an item in a different way - e.g making a pair of jeans into a clutch bag.</li> <li>5. Mending means repairing an existing item to re-use for its original purpose.</li> </ol>	<p>As Year 4 stitching but add whip stitch and blanket stitch.</p> <p>garment: an item of clothing</p> <p>seam: a line where two pieces of fabric are sewn together.</p> <p>ration: a fixed (often small ) amount of an item allowed to a person</p> <p>coupon: a voucher entitling the holder to an amount of a rationed item.</p> <p>darn: a method of repairing a hole in a knitted item.</p>								
	Candlemas									
	Lenten: Engineering									
	<ol style="list-style-type: none"> <li>1. Bridge construction has changed over time and with engineering developments - e.g from stone to metals.</li> <li>2. Bridges provide a safe route over obstacles, including roads and rivers.</li> <li>3. They are used by pedestrians, cars, trains and pipelines (for oil most commonly).</li> <li>4. Bridge structures have changed over time with innovations in design and materials.</li> <li>5. Some famous British bridges are: the Menai Bridge, Clifton Suspension Bridge and Forth Bridge.</li> </ol>	<table border="0"> <tr> <td><b>concertina</b></td> <td>Folds made alternately to the front and back of a material.</td> </tr> <tr> <td><b>distort</b></td> <td>To change the original shape of something.</td> </tr> <tr> <td><b>engineer</b></td> <td>A person who designs or builds machines, electrical equipment or structures such as roads, railways and bridges.</td> </tr> <tr> <td><b>span</b></td> <td>The length of something from one end to the other.</td> </tr> </table> <p>suspension: The roadway on a suspension bridge is hung from vertical cables supported by towers. When heavy loads are on the bridge, there are increased tension forces in the vertical cables, which are transferred to the towers.</p>	<b>concertina</b>	Folds made alternately to the front and back of a material.	<b>distort</b>	To change the original shape of something.	<b>engineer</b>	A person who designs or builds machines, electrical equipment or structures such as roads, railways and bridges.	<b>span</b>	The length of something from one end to the other.
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		<p>span: the length of something from one end to another (e.g entry point to a bridge and exit).</p> <p>distort: to change the original shape of something</p> <p>concertina: folds alternatively made to the front and back of a material.</p> <p>prototype: the first, original or a test form of an item.</p>
	Rosary	
	Trinity: Architecture	
	<ol style="list-style-type: none"> <li>1. Culture is the language, inventions, ideas and art of a group of people. A society is all the people in a community or group.</li> <li>2. Culture affects the design of some products. .</li> <li>3. Prehistoric architecture : Stonehenge is an example of such, in the UK.</li> <li>4. The Greeks were considered to be the 'classical' architects with their use of columns. The Romans further developed this style.</li> <li>5. Computer aided design is now used to give an all angles view and perform safety tests before planning any construction.</li> </ol>	<p>barrow: a large mound of earth or stones at a burial ground.</p> <p>capital: the top part of the column that supports the what of the entablature.</p> <p>colonnade: a row of columns set at regular intervals, usually supporting a roof.</p> <p>concrete: a building material made by mixing cement, sand, small stone and water.</p> <p>industrial revolution: a period of time when work began to be done by machines rather than by human hands.</p>



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