

Design and Technology Curriculum Progression



Year group	Key skills and knowledge Designing	Key vocabulary	Links to Faith and Values
Year 1	<ul style="list-style-type: none"> • Know that before something is made, it has to be designed. • Know that more than one design is always generated so that designers have a choice. • Know that a product has to be designed for a reason/ purpose. • Know that a product has to be designed for a target group/ key audience. • Know that the chosen design is always discussed and improved before the final design is chosen. • Know that products are usually made in factories, often by machinery but sometimes by hand (people). • Know that anyone can have a good idea that they can develop in order to make a product. • Know how to produce more than one design through discussion for a set purpose and audience and be able to discuss key design features with a partner. 	<p><i>designed, design, generated, designers, product, reason, purpose, target group, key audience, improved, final design, factories, machinery, manually, idea, develop, produce, key design features</i></p>	<p>Faith links will depend on the project and can be linked into the reason/purpose of the project. Some examples may be:</p> <ul style="list-style-type: none"> - Designing toys or puppets to tell stories linking to our values/stories of the prophet (please do not make puppets representing the prophet as this is not permitted by some Muslim denominations). - Sculpture – using Allah’s creation as inspiration. Creating sculptures of physical features on earth (E.g. volcano, mountain). This will provide opportunity to reflect on the perfection of Allah’s creation. - Food technology – being grateful for the variety of food we have. Link some of the foods mentioned in the Quran (See list at the bottom of the document). Could sort the foods into which are healthy/not healthy or try to design a healthy snack using some of the foods in the Quran.

<p>Year 2</p>	<ul style="list-style-type: none"> • Know that before something is made, it has to be designed. • Know that more than one design is always generated so that designers have a choice. • Know that a product has to be designed for a reason/ purpose. • Know that a product has to be designed for a target group/ key audience. • Know that there can be a number of different reasons/ purposes/ target group/ audience a product is designed for and understand the reasons why. • Know that the chosen design is always discussed and improved before the final design is chosen. • Know how to suggest ways in which a design can be improved/ modified. • Know that products are usually made in factories, often by machinery but sometimes by hand (people). • Know how to list items that they might come across that have been designed via this process. • Know how to produce more than one design through discussion or drawing for a set purpose and audience and be able to discuss key design features with a partner. 	<p><i>designed, design, generated, designers, reason, purpose, product, target group, key audience, improved, final design, modified, factories, machinery, manually, process, produce, key design features</i></p>	<p>Faith links will depend on the project and can be linked into the reason/purpose of the project. Some examples may be:</p> <ul style="list-style-type: none"> - Pictures with moving parts: creating a moving picture to tell a prophet story or a story with a value. For example they could create a picture with the mouth of the whale opening to tell the story of Prophet Yunus. - Tile making: creating Islamic patterns using repetition and pattern. Repetition is a prominent feature of geometric Islamic art and is called arabesque. It is used to represent the infinite nature of God. <ul style="list-style-type: none"> o Artist: Rania Mousa – creates paper artwork using repeating patterns. - Textiles: Link to the value of service and how useful it can be to know how to sew. Project could include some Islamic motifs.
<p>Year 3</p>	<ul style="list-style-type: none"> • Know that there can be a number of different reason/ purposes/ target groups/ key audiences a product is designed for and understand the reasons why. • Know that research is used and carried out in order to inform the design of a product. • Know that from this, design criteria are created in order for the product to meet the outcomes from the research. • Know what design criteria are. • Know how to start using research to inform basic design criteria. • Know that the chosen design is always discussed and improved before the final design is chosen. • Know how to suggest ways in which a design can be improved/ modified. • Know how to produce more than one design through drawing. • Know how to use annotation in order to communicate design features and acknowledges aspects of the design criteria. 	<p><i>reasons, purposes, target groups, key audience, product, designed, design, design criteria, outcomes, research, final design, improved, modified, produce, annotation, design features</i></p>	<p>Faith links will depend on the project and can be linked into the reason/purpose of the project. Some examples may be:</p> <ul style="list-style-type: none"> - Food technology: Making food for others – linking to the value of service. - Food technology: Which foods from the Quran can you include in your snack/meal design (See list of foods in the Quran below). - Construction: constructing a mosque such as masjid un Nabawi using junk modelling or other methods. - Textiles: Making a cushion for someone (link to value of service). Could get children to represent the value as a symbol on their cushion using the value symbols in the school. - Pneumatic toys – design a toy to teach a prophet story/story with a value or an Islamic nasheed.

<p>Year 4</p>	<ul style="list-style-type: none"> • Know that there can be a number of different reasons/ purposes/ target group/ key audiences a product is designed for and understand the reasons why. • Know that research is used and carried out in order to inform the design of a product. • Know how to carry out own research in order to inform the design of a product. • Know that from this, design criteria are created in order for the product to meet the outcomes from the research. • Know what design criteria are. • Know how to develop own design criteria for a product. • Know that the chosen design is always discussed and improved against the design criteria before the final design is chosen. • Know how to suggest ways in which a design can be improved/ modified. • Know how to produce more than one design through drawing. • Know how to use annotation in order to communicate design features and ensure design criteria has been met. 	<p>reasons, purposes, target group, key audience, product, design, designed, research, inform, product, design criteria, outcomes, improved, modified, produce, annotation, design features</p>	<p>Faith links will depend on the project and can be linked into the reason/purpose of the project.</p>
<p>Year 5</p>	<ul style="list-style-type: none"> • Know the key audience for whom you are designing your enterprise product for. • Know and understand the target group/ key audience in order to develop a suitable product for them. • Know how to use a set of design criteria based on research surrounding the target group/ key audience. • Know what a cross sectional exploded diagram is. • Know what a prototype is. • Know how to use diagrams and prototypes in the process. • Know how Computer Aided Design can be used in the design process (the use of 2D and 3D designs). • Know how to use Computer Aided Design to make a 2D or 3D design. 	<p>key audience, designing, enterprise product, target group, product, design criteria, research, cross sectional exploded diagram, prototype, diagrams, process, Computer Aided Design, 2D designs, 3D designs</p>	<p>Faith links will depend on the project and can be linked into the reason/purpose of the project.</p>
<p>Year 6</p>	<ul style="list-style-type: none"> • Know the key audience for whom you are designing your enterprise product for. • Know and understand the target group/ key audience in order to develop a suitable product for them. • Know how to use a set of design criteria based on research surrounding the target group/ key audience. • Know what a cross sectional exploded diagram is. • Know what a prototype is. • Know how to use diagrams and prototypes in the process. • Know how Computer Aided Design can be used in the design process (the use of 2D and 3D designs). • Know how to use Computer Aided Design to make a 2D or 3D design. 	<p>key audience, designing, enterprise product, target group, product, design criteria, research, cross sectional exploded diagram, prototype, diagrams, process, Computer Aided Design, 2D designs, 3D designs</p>	<p>Faith links will depend on the project and can be linked into the reason/purpose of the project.</p>

Year group	Key skills and knowledge Making	Key vocabulary	SHINE & Links to faith
Year 1	<ul style="list-style-type: none"> • Begin to make their design using appropriate techniques. • With help measure, mark out, cut and shape a range of materials • Know how to correctly hold a pair of scissors. • Know how to cut accurately along different sizes and shapes of lines. • Know that tracing (of simple lines using pencil) can be used to develop fine motor skills. • Know that there are different ways to join materials (e.g. glue, sellotape and blu-tack). • Begin to use simple finishing techniques to improve the appearance of their product. 	<p>sizes, shapes, lines, tracing, simple lines, fine motor skills, join, materials, glue, sellotape, blu-tack, thread, equipment, hole punched holes,</p>	<p>Allah's name Al-Khaliq meaning the creator. Allah has made everything</p> <ul style="list-style-type: none"> - Nasheed: Allah made everything by Zain Bikha - Quran 6:102 "That is Allah your Lord! There is no god but He, the Creator of everything, therefore worship him, for He is Guardian over all things." <p>Faith links will depend on the project and can be linked into the reason/purpose of the project. Some examples may be:</p> <ul style="list-style-type: none"> - Designing toys or puppets to tell stories linking to our values/stories of the prophet (please do not make puppets representing the prophet as this is not permitted by some Muslim denominations). - Sculpture – using Allah's creation as inspiration. Creating sculptures of physical features on earth (E.g. volcano, mountain). This will provide opportunity to reflect on the perfection of Allah's creation. - Food technology – being grateful for the variety of food we have. Link some of the foods mentioned in the Quran (See list at the bottom of the document). Could sort the foods into which are healthy/not healthy or try to design a healthy snack using some of the foods in the Quran.
Year 2	<ul style="list-style-type: none"> • Begin to select tools and materials; use correct vocabulary to name and describe them • Learn to use hand tools safely and appropriately. • Know that product designs can be made out of a range of materials. • Know that certain materials are used for a specific purpose and are chosen for those reasons. • Know that tracing (of simple lines, shapes and patterns using pencil) can be used to make a template. • Know how to create differently shaped templates (using tracing and scissors). • Know how to cut accurately along lines and around template shapes using scissors. • Start to choose and use appropriate finishing techniques based on own ideas. 	<p>product, designs, materials, purpose, tracing, simple lines, shapes, patterns, template, create, cut, scissors, investigate, methods, joining, equipment,</p>	<p>Faith links will depend on the project and can be linked into the reason/purpose of the project. Some examples may be:</p> <ul style="list-style-type: none"> - Pictures with moving parts: creating a moving picture to tell a prophet story or a story with a value. For example they could create a picture with the mouth of the whale opening to tell the story of Prophet Yunus. - Tile making: creating Islamic patterns using repetition and pattern. Repetition is a prominent feature of geometric Islamic art and is called arabesque. It is used to represent the infinite nature of God. <ul style="list-style-type: none"> o Artist: Rania Mousa – creates paper artwork using

			<p>repeating patterns.</p> <p>Textiles: Link to the value of service and how useful it can be to know how to sew. Project could include some Islamic motifs.</p>
Year 3	<ul style="list-style-type: none"> • Know what reclaimed and recycled materials are. • Know how to cut, fold, trace and shape accurately in order to produce a finished product. • Know how to create a simple lever slider for a pop-up book/card. • Know how to join and finish accurately by selecting and using a wide range of tools and equipment. • Explain their choice of tools and equipment in relation to the skills and techniques they will be using. • Measure, mark out, cut, score and assemble components with more accuracy. • Start to work safely and accurately with a range of simple tools. • Start to think about their ideas as they make progress and be willing to change things if this helps them to improve their work 	<p>Reclaimed, recycled, cut, fold, trace, shape, product, create, simple lever slider, pop-up book/card, join, finish, lever, measure, score, components</p>	<p>Faith links will depend on the project and can be linked into the reason/purpose of the project. Some examples may be:</p> <ul style="list-style-type: none"> - Food technology: Making food for others – linking to the value of service. - Food technology: Which foods from the Quran can you include in your snack/meal design (See list of foods in the Quran below). - Construction: constructing a mosque such as masjid un Nabawi using junk modelling or other methods. - Textiles: Making a cushion for someone (link to value of service). Could get children to represent the value as a symbol on their cushion using the value symbols in the school. <p>Pneumatic toys – design a toy to teach a prophet story/story with a value or an Islamic nasheed.</p>
Year 4	<ul style="list-style-type: none"> • Select a wider range of tools and techniques for making their product safely. • Know how to measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques. • Continue to learn how to program a computer to monitor changes in the environment and control their products • Understand how to reinforce and strengthen a 3D framework • Begin to use finishing techniques to strengthen and improve the appearance of their product using a range of equipment including ICT. • Know how to cut, fold, trace and shape accurately in order to produce a finished product. • Know how to create a simple lever slider for a pop-up book/card. • Know how to join and finish accurately by selecting and using a wide range of tools and equipment. 	<p>cut, fold, trace, shape, produce, product, create, simple lever slider, pop-up book/card, join, finish, tools, equipment, make, equipment, techniques, reinforce, strengthen,</p>	<p>Faith links will depend on the project and can be linked into the reason/purpose of the project.</p>
Year 5	<ul style="list-style-type: none"> • Know how to consider functional and aesthetic properties. • Select appropriate materials, tools and techniques e.g. cutting, shaping, joining and finishing, accurately. • Begin to measure and mark out more accurately • Demonstrate how to use skills in using different tools and equipment safely and accurately with growing confidence cut and join with accuracy to ensure a good-quality finish to the product. • Use finishing techniques to strengthen and improve the appearance of their product using a range of equipment including ICT. 	<p>designs, investigate, investigations, thread materials, tools, components, functional, aesthetic properties</p>	<p>Faith links will depend on the project and can be linked into the reason/purpose of the project.</p>

Year 6

- *Confidently select appropriate tools, materials, components and techniques and use them.*
- *Know how to consider functional and aesthetic properties.*
- *Use tools safely and accurately.*
- *Aim to make and to achieve a quality product.*
- *Demonstrate when make modifications as they go along.*
- *Know how to reinforce and strengthen a 3D framework.*
- *Use finishing techniques to strengthen and improve the appearance of their product using a range of equipment including ICT.*

*designs,
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properties*

Faith links will depend on the project and can be linked into the reason/purpose of the project.

Year group	Key skills and knowledge Evaluating	Key vocabulary	SHINE & Links to faith
Year 1	<ul style="list-style-type: none"> • Know what is means to evaluate something in terms of strengths • Know how to make suggestions in order to prefect a product • Know how to make suggestions and critique 	<i>evaluate, strengths, suggestions, product</i>	<p>Faith links will depend on the project and can be linked into the reason/purpose of the project. Some examples may be:</p> <ul style="list-style-type: none"> - Designing toys or puppets to tell stories linking to our values/stories of the prophet (please do not make puppets representing the prophet as this is not permitted by some Muslim denominations). - Sculpture – using Allah’s creation as inspiration. Creating sculptures of physical features on earth (E.g. volcano, mountain). This will provide opportunity to reflect on the perfection of Allah’s creation. - Food technology – being grateful for the variety of food we have. Link some of the foods mentioned in the Quran (See list at the bottom of the document). Could sort the foods into which are healthy/not healthy or try to design a healthy snack using some of the foods in the Quran.
Year 2	<ul style="list-style-type: none"> • Know what is means to evaluate something in terms of strengths • Know how to make suggestions in order to prefect a product • Know how to make suggestions and critique 	<i>evaluate, strengths, suggestions, product</i>	<p>Faith links will depend on the project and can be linked into the reason/purpose of the project. Some examples may be:</p> <ul style="list-style-type: none"> - Pictures with moving parts: creating a moving picture to tell a prophet story or a story with a value. For example they could create a picture with the mouth of the whale opening to tell the story of Prophet Yunus. - Tile making: creating Islamic patterns using repetition and pattern. Repetition is a prominent feature of geometric Islamic art and is called arabesque. It is used to represent the infinite nature of God. <ul style="list-style-type: none"> o Artist: Rania Mousa – creates paper artwork using repeating patterns. <p>Textiles: Link to the value of service and how useful it can be to know how to sew. Project could include some Islamic motifs.</p>
Year 3	<ul style="list-style-type: none"> • Know what a net is. • Know and explore how to disassemble a range of different packaging to discover a variety of nets and shapes. • Know how nets and shapes form different packaging. • Know how to make their own net for their own packaging. • Know how to add strength to a net by using different materials. • Know how to evaluate own work and suggest changes. 	<i>net, disassemble, packaging, shapes, strength, materials, evaluate, suggestions</i>	<p>Faith links will depend on the project and can be linked into the reason/purpose of the project. Some examples may be:</p> <ul style="list-style-type: none"> - Food technology: Making food for others – linking to the value of service. - Food technology: Which foods from the Quran can you include in your snack/meal design (See list

			<p>of foods in the Quran below).</p> <ul style="list-style-type: none"> - Construction: constructing a mosque such as masjid un Nabawi using junk modelling or other methods. - Textiles: Making a cushion for someone (link to value of service). Could get children to represent the value as a symbol on their cushion using the value symbols in the school. <p>Pneumatic toys – design a toy to teach a prophet story/story with a value or an Islamic nasheed.</p>
Year 4	<ul style="list-style-type: none"> • Know what a net is. • Know and explore how to disassemble a range of different packaging to discover a variety of nets and shapes. • Know how nets and shapes form different packaging. • Know how to evaluate different nets according to durability in order to influence their own net design. • Know how to make their own net for their own packaging. • Know how to test different ways of adding strength to a net by using different materials. • Know how to evaluate own work in terms of strength and make suggestions. 	<p>net, disassemble, packaging, shapes, evaluate, durability, net design, strength, materials, suggestions</p>	<p>Faith links will depend on the project and can be linked into the reason/purpose of the project.</p>
Year 5	<ul style="list-style-type: none"> • Know that there can be a number of different decorative techniques to complete a project. • Know how to explore a range of finishing techniques to decide which is most effective. • Know what triangulation is. • Know and understand how triangles add strength. • Know how to demonstrate this through triangulation. • Know how to evaluate critically and effectively in order to improve own work. • Know how to make suggestions considering a different design criteria/target group in the future. 	<p>decorative techniques, project, finishing techniques, triangulation, strength, evaluate, critically, improve, suggestions, design criteria/target group</p>	<p>Faith links will depend on the project and can be linked into the reason/purpose of the project.</p>
Year 6	<ul style="list-style-type: none"> • Know that there can be a number of different decorative techniques to complete a project. • Know how to explore a range of finishing techniques to decide which is most effective. • Know what triangulation is. • Know and understand how triangles add strength. • Know how to demonstrate this through triangulation. • Know how to evaluate critically and effectively in order to improve own work. • Know how to make suggestions considering a different design criteria/target group in the future. 	<p>decorative techniques, project, finishing techniques, triangulation, strength, evaluate, critically, improve, suggestions, design criteria/target group</p>	<p>Faith links will depend on the project and can be linked into the reason/purpose of the project.</p>

Year group	Key skills and knowledge Structures	Key vocabulary	SHINE & Links to faith
Year 1	<ul style="list-style-type: none"> Construct a range of simple structures using simple construction kits. Make a structure more stable by widening the base. Make a square frame from strip wood using triangular card joints. Make a simple card hinge. 	<p>construction, explore, slider, simple moving image</p>	<p>Faith links will depend on project.</p> <p>Suggested activity - look at some faith based structures (e.g. Kaba, Masjid Nabawi) as examples and children could use construction kits to recreate these.</p>
Year 2	<ul style="list-style-type: none"> Deconstruct and assemble the net of basic 3D shapes. Strengthen 2D frames by adding diagonal bracing struts. Make a rectangular frame from strip wood. Use materials to make simple joints, glue, tape and paper clips. Know how to investigate different methods for joining materials 	<p>Structure, stable, rigid, cut, fold, join, fix structure, wall, tower, framework, weak, strong, base, top, underneath, side, edge, surface, thinner, thicker, corner, point, straight, curved, metal, wood, plastic circle, triangle, square, rectangle, cuboid, cube, cylinder</p>	<p>Faith links will depend on project.</p> <p>Suggested activity – use 2D/3D shapes to make a kaba structure using materials such as glue, tape, paper clips and paper. Children will mainly need to make a cube for this activity.</p> <p>Suggested activity – make the tallest minaret. This could be a team activity to allow children to explore different methods for joining materials through exploration.</p>
Year 3	<ul style="list-style-type: none"> Deconstruct and assemble the net of a range of basic 3D shapes. Join 2D frames to create 3D structures. Make rectangular frames of different sizes using strip wood, reinforcing with cross braces. Use a range of materials to make joints. Know that certain reclaimed/ recycled materials can be used for a specific purpose in order to make a structure. 	<p>reclaimed, recycled materials, purpose, structure,</p>	<p>Faith links will depend on project.</p> <p>Suggested activity – use 2D/3D shapes to make a mosque structure using materials such as glue, tape, paper clips and paper. Children will need to make multiple shapes to make this</p> <p>Recycled materials – link to value of respect for the creation and being stewards of Allah and our responsibility to look after Allah’s creation</p>
	<ul style="list-style-type: none"> Create nets of increasingly complex 3D shapes which include the addition of gluing tabs. Reinforce and strengthen 3D framework using the concept of 'triangulation'. Explain in detail why some structures fail. Use a range of materials to make joints e.g., card strips, elastic bands, thread and ties, and plastic tubing. Know what reclaimed and recycled materials are. Know that certain reclaimed/ recycled materials can be used for a specific purpose in order to make a structure. 	<p>reclaimed, recycled, materials, purpose, Girder, rafter, strut shell structure, three-dimensional (3-D) shape, net, cube, cuboid, prism, vertex, edge, face, length, width, breadth, capacity,</p>	<p>Faith links will depend on project.</p> <p>Suggested activities – using junk modelling to create a school using materials provided (could be any of the materials mentioned or recycled materials). This will differ from the previous year where children will follow a set framework using just paper/card</p>

<p>Year 4</p>		<p>marking out, scoring, shaping, tabs, adhesives, joining, assemble, accuracy, material, stiff, strong, reduce, reuse, recycle, corrugating, ribbing, laminating, font, lettering, text, graphics, decision</p>	<p>nets to create their mosque model</p> <p>Recycled materials – link to value of respect for the creation and being stewards of Allah and our responsibility to look after Allah’s creation</p> <p>Quran 10:14 “Then we made you successors/trustees in the earth after them to see how you behave.”</p>
<p>Year 5</p>	<ul style="list-style-type: none"> • Create nets and templates accurately in a range of sizes. • Use a range of increasing methods to strengthen 3D structures and frames. • Investigate measure and record the load tolerance of different structures and find ways of improving a structures loadbearing capacity. • Build a range of structures using a wide range of effective materials. 	<p>reclaimed, recycled, materials, purpose, Girder, rafter, strut shell structure, Net, template, structure, frame. Measure, record, strengthen, load, capacity, loadbearing, materials</p>	<p>Faith links will depend on project</p>
<p>Year 6</p>	<ul style="list-style-type: none"> • Make use of specialist equipment to mark out materials. • Select the most appropriate method to strength 3D structures and frames. • Apply a range of finishing techniques, including those from art and design, to a broad range of materials including textiles, metals, polymers and woods. • Use a wider more complex range of materials, components and ingredients, taking into account their properties. 	<p>Member, cross brace, cantilever, frame structure, stiffen, strengthen, reinforce, triangulation, stability, shape, join, temporary, permanent</p>	<p>Faith links will depend on project.</p> <p>Mention the professions of some of the prophets:</p> <ul style="list-style-type: none"> - Prophet Seth was a silk-monger and weaver (textiles) - Prophet Idris – tailor (textiles) - Prophet Nuh/Noah – carpenter - Prophet Ibrahim – architect, built the Kaba - Prophet Zacharia – carpenter

Year group	Key skills and knowledge Textiles	Key vocabulary	SHINE & Links to faith
Year 1	<ul style="list-style-type: none"> • Talk about and begin to select textiles based on characteristics of an increasing range of materials. • Use a simple template. Join fabrics using glue, staples and thread. • Apply an increasing range of finishing techniques, e.g. painting and printing. • Know how to create a picture with peg board and pegs, using fine motor skills. 	<p>joining and finishing techniques, tools, fabrics and components, template, pattern pieces, mark out, join, decorate, finish, thread, equipment, hole punched holes, cotton reels, shoelaces, create, peg board, pegs</p>	<p>Faith links will depend on project.</p> <p>Suggested activity: create finger puppets using textiles and use these to tell stories linking to our values or Quranic stories (note: no puppets of any prophets/God should be created)</p> <p>Suggested activity: use a peg board to make a picture of a mosque or Allah's creations.</p> <p>-</p>
Year 2	<ul style="list-style-type: none"> • Talk about the similarities and differences between textiles based on the characteristics of an increasing range of materials. • Use a simple pattern with increasing accuracy. • Cut and join fabrics using running stitch, buttons and bond web. • Decorate fabric by applying beads and sequins. • Know how to develop string threading skills using a threading board. • Know how to thread using smaller equipment (e.g. hollow pasta, beads, buttons and string) to create an item for an identified purpose (e.g. a counting aid or jewellery). • 	<p>joining and finishing techniques, tools, fabrics and components, template, pattern pieces, mark out, join, decorate, finish threading, threading board,</p>	<p>Faith links will depend on project.</p> <p>Gratitude – reflect on how blessed we are to have so many different textiles available.</p> <p>Service – reflect on how we can serve others with this skill of textiles.</p> <p>Suggested activity: Make a tasbeeh/rosary using beads/pasta and talk about how Muslims might use this tasbeeh to remember Allah/God.</p>
Year 3	<ul style="list-style-type: none"> • Give reasons for the selection of fabrics and techniques based on knowledge of characteristics. • Make and use a simple paper pattern. • Join fabrics in a range of different ways using zips, tie clasp, toggles, press-studs and buttons. • Use a wide range of simple finishing techniques. • Know how to thread a wide eyelet needle using thread. • Know how to use the threading grids to create simple threading patterns- cross stitch and running stitch. 	<p>fabric, names of fabrics, fastening, compartment, zip, button, structure, finishing technique, strength, weakness, stiffening, templates, stitch, seam, seam allowance, thread, wide eyelet needle, threading grids, threading patterns, cross stitch, running stitch</p>	<p>Faith links will depend on project.</p> <p>Suggested activity: design (on paper) a modest clothing for _____ (purpose). Children to think about the modesty that Islam teaches and which clothes would be suitable. Children to think about how they would join the fabrics (e.g. zip, tie, clasp, toggle, button).</p> <p>Suggested activity: make a cushion as an Eid gift for someone in your family (link to the value of service)</p> <p>- .Chn could put some lavender in the cushion to give it a nice scent</p>

			<p>Mention the professions of some of the prophets:</p> <ul style="list-style-type: none"> - Prophet Seth was a silk-monger and weaver (textiles) - Prophet Idris – tailor (textiles)
Year 4	<ul style="list-style-type: none"> • Support reasons for selections with justifiable evidence and facts. • Make and use a paper pattern that includes a seam allowance. • Sew using a range of stitches including, backward running stitch and over sewing. • Use a wide range of techniques to add colour, texture and pattern to fabric. • Know how to thread a wide eyelet needle using thread. • Know how to use binka to create a simple sewing product- cross stitch, running stitch, back stitch and whipping stitch. • Now sew using a range of different stitches, to weave and knit. 	<p>thread, wide eyelet needle, binka, simple sewing product, cross stitch, running stitch, back stitch, whipping stitch, weaving, loom, knit, casting on/off</p>	<p>Faith links will depend on project.</p> <p>Suggested activity: when adding colour/texture/pattern think about how different images can affect us emotionally and spiritually. Link to MFL/Arabic - encourage the children to use Arabic letters to decorate (e.g. the Arabic letter that starts the name of the person they are gifting it to).</p> <p>Link to value of service – how can you serve others with this skill?</p> <ul style="list-style-type: none"> - Knowledge of the prophets – Do you know any prophets that served using these skills? Prophet Seth was a silk-monger and weaver (textiles); Prophet Idris – tailor (textiles)
Year 5	<ul style="list-style-type: none"> • Select appropriate materials to create a product. • Create increasingly complex patterns and templates with more than one part that are accurately measured. Use a sewing machine to join and decorate fabric. • Identify the most effective finishing technique in order to maximise the aesthetic value of the product. • Know how to thread a small eyelet needle using thread. • Know how to choose a type of stitch for a purpose (e.g. cross stitch, running stitch, back stitch and whipping stitch). 	<p>seam, seam allowance, wadding, reinforce, right side, wrong side, hem, template, pattern pieces, name of textiles and fastenings used, pins, thread, pinking shears, fastenings, , small eyelet needle, stitch, purpose, cross stitch, running stitch, back stitch, whipping stitch,</p>	<p>Faith links will depend on project.</p>
Year 6	<ul style="list-style-type: none"> • Know how to thread a small eyelet needle using thread. • Know how to choose a type of stitch for a purpose (e.g. cross stitch, running stitch, back stitch and whipping stitch). • Use a broad range of material joining techniques including stitching, mechanical fastenings, heat processes and adhesives. • Investigate and develop skills in modifying the appearance of materials including textiles and other manufactured materials e.g. dyeing and applique 	<p>thread, small eyelet needle, stitch, purpose, cross stitch, running stitch, back stitch, whipping stitch, materials, dyeing</p>	<p>Faith links will depend on project.</p> <p>-</p>

Year group	Key skills and knowledge Mechanical Systems	Key vocabulary	SHINE & Links to faith
Year 1	<ul style="list-style-type: none"> Deconstruct a simple slider and describe how it works. Construct a simple slider independently. Make a lever by joining card strips with paper fasteners. Understand that different mechanisms produce different types of movement. Know and use technical vocabulary relevant to the project. 	<i>slider, lever, pivot, slot, bridge/guide, card, masking tape, paper fastener, join, pull, push, up, down, straight, curve, forwards, backwards</i>	<p>Faith links will depend on project.</p> <p>Suggested activity: children to make a moving eid card</p>
Year 2	<ul style="list-style-type: none"> Deconstruct a range of sliders and describe how they work. Construct increasing complex sliders. Join levers to make linkages to create moving parts. Construct a simple pneumatic system with one moving part. Explore and use wheels, axles and axle holders. Distinguish between fixed and freely moving axles. Know and use technical vocabulary relevant to the project. Know how to explore a range of simple levers for a specific purpose. Know how to create a simple moving image using a lever. 	<i>vehicle, wheel, axle, axle holder, chassis, body, cab assembling, cutting, joining, shaping, finishing, fixed, free, moving, mechanism names of tools, equipment and materials used, simple levers, simple moving image, lever</i>	<p>Faith links will depend on project.</p> <p>Suggested activity: Children to use levers and linkages to make a moving picture to tell a story with a moral linking to one of the school values (respect, gratitude, compassion, excellence, integrity, service)</p>
Year 3	<ul style="list-style-type: none"> Deconstruct and reconstruct a range of sliders and levers. Vary the position of the pivot point to lift a load using a lever. Construct a pneumatic with two moving parts. Identify the cam within a simple mechanism and explain how movement is changed. Understand and use lever and linkage mechanisms. Distinguish between fixed and loose pivots. Know and use technical vocabulary relevant to the project. 	<i>mechanism, lever, linkage, pivot, slot, bridge, guide system, input, process, output linear, rotary, oscillating, reciprocating</i>	<p>Faith links will depend on project.</p> <p>Suggested activity: children to use levers and linkages to tell a story from the Quran or a story about a prophet. Techniques should build on what was done in previous year.</p>
Year 4	<ul style="list-style-type: none"> Create a range of sliders and levers to produce horizontal and vertical movement. Combine sliders and levers to produce a range of movements. Generate questions to investigate and compare the efficiency of pneumatic systems. Describe the way in which a cam changes rotary motion into linear motion. 	<i>Slider, lever, horizontal, vertical, pneumatic, cam, rotary, motion, linear</i>	<p>Faith links will depend on project.</p> <p>Suggested activity: Children to create an Islamic calendar or image to represent the change in the moon in the lunar calendar using cams, sliders, levers.</p>
Year 5	<ul style="list-style-type: none"> Use a range of technical vocabulary to describe the properties and functions of mechanisms. Choose and use a range of sliders and levers accurately to create a range of effects. Analyse and evaluate the efficiency of pneumatic systems. Discuss the relationship between a cam and follower, an off-centre cam, a peg cam, a pear-shaped cam and a snail cam. Know what a simple pulley system consists of. 	<i>pulley, drive belt, gear, rotation, spindle, driver, follower, ratio, transmit, axle, motor, circuit, switch, circuit diagram,</i>	<p>Faith links will depend on project</p>

	<ul style="list-style-type: none"> • Know that there can be different designs of pulley systems. • Know how to investigate different pulley systems. • Know how to use these investigations to make own simple pulley system. 	<p>annotated drawings, exploded diagrams, mechanical system, electrical system, input, process, output designs, investigate, investigations,</p>	
Year 6	<ul style="list-style-type: none"> • Know what a simple pulley system consists of. • Know that there can be different designs of pulley systems. • Know how to investigate different pulley systems. • Know how to use these investigations to make own simple pulley system. • Make adjustments to the settings of equipment and machinery such as sewing machines and drilling machines. • Construct and use compound gear trains to drive mechanical systems from a high revving motor. 	<p>simple pulley system, designs, investigate, investigations, mechanical, motor, drill,</p>	<p>Faith links will depend on project.</p>

Year group	Key skills and knowledge Electrical Systems	Key vocabulary	SHINE & Links to faith
Year 3	<ul style="list-style-type: none"> • Explore and describe how an electric motor can be used in a circuit. • Identify key features of electrical safety. • Use a remote-controlled device to switch lights on and off. (including computer control packages) • Know how to make a simple electrical circuit using a buzzer, a battery, a bulb and wires. • Know that a simple circuit consists of a buzzer, a battery, a bulb and wires and that knowledge of a circuit can be applied for a specific D and T purpose. 	<p>tools, equipment, make, simple electrical circuit, buzzer, battery, bulb, wires</p>	<p>Faith links will depend on project.</p> <p>Link to value of respect – why is it important to be able to switch devices on and off? Talk about protecting the environment by saving electricity.</p> <p>Suggested activity: children to create a night light to help people pray Fajr/morning prayers while it is still dark outside.</p>
Year 4	<ul style="list-style-type: none"> • Know how to make a simple electrical circuit using a buzzer, a battery, a bulb and wires. • Know that a simple circuit consists of a buzzer, a battery, a bulb and wires and that knowledge of a circuit can be applied for a specific D and T purpose. • Explore and describe how electrical circuits can be created and controlled. • Discuss in depth the hazards and safety issues associated with electricity. • Explore and explain how the direction and speed of an electrical motor can be controlled. • Explore and program a simple control device. 	<p>series circuit, fault, connection, toggle switch, push-to-make switch, push-to-break switch, battery, battery holder, bulb, bulb holder, wire, insulator, conductor, crocodile clip, control, program, system, input device, output device,</p>	<p>Faith links will depend on project.</p> <p>Suggested activity: Children to program a simple control device alarm clock for Muslims using a buzzer to remind them when it is time to pray.</p>

<p>Year 5</p>	<ul style="list-style-type: none"> • Explore and describe how switches can be used in a range of circuits to control components, e.g. lights in a lighthouse, a movement sensor in a burglar alarm. • Apply appropriate safety measures when constructing circuits. • Explore and discuss ways in which electricity can be used to control movement. • Explore and use an increasing range of complex control system, e.g., a light sensor. 	<p>Switch, circuit, current, component, light, sensor, electricity, , fault, connection, toggle switch, push-to-make switch, push-to-break switch, battery, battery holder, bulb, bulb holder, wire, insulator, conductor, crocodile clip, control, program, system, input device, output device,</p>	<p>Faith links will depend on project.</p>
<p>Year 6</p>	<ul style="list-style-type: none"> • Use computer-based systems to control an increasing range of components • Apply computing and use of electronics to embed intelligence in products that respond to inputs. • Control outputs such as actuators and motors. • Make use of sensors to detect heat, light, sound and movement. 	<p>reed switch, toggle switch, push-to-make switch, push-to-break switch, light dependent resistor (LDR), tilt switch, light emitting diode (LED), bulb, bulb holder, battery, battery holder, USB cable, wire, insulator, conductor, crocodile clip control, program, system, input device, output device, series circuit, parallel circuit</p>	<p>Faith links will depend on project.</p>

Year group	<p style="text-align: center;">Key skills and knowledge</p> <ul style="list-style-type: none"> Food Technology 	Key vocabulary	SHINE & Links to faith
Year 1	<ul style="list-style-type: none"> Know that meat comes from animals and fish comes from the sea. Know that vegetables and fruit come from plants in the earth. Know that dairy products such as yoghurt, cheese and milk come from animals. Know that some foods are bad because they contain lots of sugar or fat and can give some examples. Know how to suggest healthy and unhealthy snacks and be able to say whether these are good or bad for you. Know that unhealthy foods can make you feel bad and damage your teeth. Know which foods are healthy/ unhealthy on the eat well plate. Know that the healthy foods outweigh the unhealthy foods on the eat well plate. Know how to hold a knife correctly using a simple bridge hold. Know how to peel, cut, chop and spread soft items such as bread, bananas, strawberries etc. Know how to make a sandwich and a fruit salad. 	<p>meat, animals, fish, vegetables, fruit, plants, dairy products, yoghurt, cheese, milk, foods, sugar, fat, healthy, unhealthy, eat well, plate, hold, knife, simple bridge hold, peel, cut, chop, spread, make</p>	<p>Faith links will depend on project.</p> <p>Link to value of service – cooking for others and helping in the kitchen</p> <p>Link to value of gratitude – grateful for the variety of foods we have.</p> <p>When using foods from the Quran mention that they are in the Quran (see list below)</p>
Year 2	<ul style="list-style-type: none"> Know the main sources of food (e.g. meat and dairy from animals, fruit and vegetables from plants etc.). Know that some foods are farmed, grown or caught (giving examples) and that these are natural food items. Know that some foods are bad because they contain lots of sugar or fat and can give some examples. Know that some foods are man-made (giving examples) and that these are artificial. Know how to suggest healthy and unhealthy snacks and be able to say whether these are good or bad for you. Know that unhealthy foods can make you feel bad and damage your teeth. Know which foods are healthy/ unhealthy on the eat well plate and can state healthier food swap alternatives. Know that the healthy foods outweigh the unhealthy foods on the eat well plate. Know the proportions of each food group on the eat well plate and why this is important. Know how to hold a knife correctly using a simple bridge hold. Know how to evaluate a food product- healthy dip against certain aspects (e.g. taste, smell, appearance). Know how to peel, cut and chop firmer foods (such as apples, carrots, cheese and tomatoes etc.) in order to make a dip. 	<p>sources, food, meat, dairy, animals, fruit, vegetables, plants, farmed, grown, caught, natural food items, sugar, fat, man-made, artificial, healthy, unhealthy, snacks, teeth, eat well plate, healthier food swap alternatives, proportions, food group, hold, knife, simple bridge hold, peel, cut, chop, evaluate, food product, aspects, taste, smell, appearance</p>	<p>Faith links will depend on project.</p> <p>Link to value of respect – respect our bodies by thinking carefully about what we eat.</p> <p>Children to design a healthy meal using the eat well plate with a food from the Quran (See list below)</p> <p>Overeating in hadith</p> <ul style="list-style-type: none"> - Ali ibn abi Talib has said "Overindulgence of food causes various kinds of diseases." - Prophet Muhammad has said "There are three traits which Allah loves: briefness in speech, short (length) of sleep and small (portion) of food; while there are three traits which Allah dislikes: loquaciousness, oversleeping and overeating."

<p>Year 3</p>	<ul style="list-style-type: none"> • Know the importance of hand washing in terms of food health, safety and hygiene. • Know the key health and safety rules when cooking (e.g. hair tied up, wash hands, no jewellery and cleaned work station/ utensils). • Know the difference between savoury and sweet foods. • Know where different food products come from and how they are made using research to inform own planning (e.g. where foods are grown, farmed or caught). • Know how to plan a savoury meal using knowledge of the eat well plate (containing carbohydrate and vegetables). • Know how to plan a healthy sweet meal using knowledge of the eat well plate (containing fruit/s). • Know the key aspects of planning a dish (e.g. equipment, ingredients and instructions). • Know the importance of planning before preparing and cooking a food dish. • Know how to prepare and cook a dish following a pre-made plan or recipe. • Know how to demonstrate and use a range of cooking techniques when preparing and cooking dishes (e.g. chopping, kneading, grating and mixing). 	<p>food health, safety, hygiene, health and safety rules, cooking, savoury foods, sweet foods, food products, research, plan, planning, grown, farmed, caught, eat well plate, carbohydrates, vegetables, fruits, key aspects, equipment, ingredients, instructions, preparing, cooking, prepare, cook, cooking techniques, chopping, kneading, grating, mixing</p>	<p>Faith links will depend on project.</p> <p>When teaching importance of hand washing talk about how the prophet always used to be clean. The Prophet said "Try to be clean as much as you are able to. Verily Allah has based the foundation of Islam on cleanliness; hence never can a person enter Paradise but the clean ones"</p> <p>Discuss where each of the foods in the Quran comes from (see list below) – grown, farmed or caught.</p> <p>Show the halal symbol and discuss what it means. (link to where food comes from and preparing food).</p> <p>Plan a healthy sweet meal that includes a food from the Quran.</p>
<p>Year 4</p>	<ul style="list-style-type: none"> • Know the importance of hand washing in terms of food health, safety and hygiene. • Know the key health and safety rules when cooking (e.g. hair tied up, wash hands, no jewellery and cleaned work station/ utensils). • Know the difference between savoury and sweet foods. • Know where different food products come from and how they are made using research to inform own planning (e.g. where foods are grown, farmed or caught). • Know how to plan a savoury meal using knowledge of the eat well plate (containing carbohydrate and vegetables). • Know how to plan a healthy sweet meal using knowledge of the eat well plate (containing fruit/s). • Know the key aspects of planning a dish (e.g. equipment, ingredients and instructions). • Know the importance of planning before preparing and cooking a food dish. • Know how to prepare and cook a dish following a pre- made plan or recipe. • Know how to demonstrate and use a range of cooking techniques when preparing and cooking dishes (e.g. chopping, kneading, grating and mixing). 	<p>food health, safety, hygiene, health and safety rules, cooking, savoury foods, sweet foods, food products, research, inform, planning, grown, farmed, caught, eat well plate, carbohydrates, vegetables, fruits, key aspects, equipment, ingredients, instructions, preparing, cooking, prepare, cook, pre-made plan, recipe, cooking techniques, chopping, kneading, grating, mixing</p>	
<p>Year 5</p>	<ul style="list-style-type: none"> • Know how to demonstrate correct preparation of food products. • Know how raw meats should be safely stored e.g. bottom of the fridge). • Know how to prepare raw meat (e.g. different chopping board/ utensils and washing hands before and after). • Know the importance of this health advice when handling more than one type of meat. • Know the importance of cooking meat for the correct amount of time, based on packaging advice. • Know and check when a meat has been properly cooked (e.g. juices run clear and 	<p>preparation, food products, raw meats, stored, prepare, cooking, packaging, cooked, create, plan, prepare, cook, heat source, cooking techniques, chopping, kneading,</p>	<p>Faith links will depend on project.</p> <p>When talking about raw meats link to which meats are halal and haram and how to know if meat is halal. Can also talk about the handling of meat and cross contamination.</p> <p>Discuss which meats are mentioned in the Quran (see list below) and allow children time to plan an</p>

	<p><i>chicken is white not pink).</i></p> <ul style="list-style-type: none"> • <i>Know how to create, plan, prepare and cook a healthy evening meal using a heat source.</i> • <i>Know how to select and use appropriate cooking techniques for a healthy evening meal (e.g. chopping, kneading, grating and mixing).</i> 	<p><i>grating, mixing</i></p>	<p><i>evening meal including as many of the foods mentioned in the Quran as possible.</i></p>
<p>Year 6</p>	<ul style="list-style-type: none"> • <i>Know how to demonstrate correct preparation of food products.</i> • <i>Know how raw meats should be safely stored e.g. bottom of the fridge).</i> • <i>Know how to prepare raw meat (e.g. different chopping board/ utensils and washing hands before and after).</i> • <i>Know the importance of this health advice when handling more than one type of meat.</i> • <i>Know the importance of cooking meat for the correct amount of time, based on packaging advice.</i> • <i>Know and check when a meat has been properly cooked (e.g. juices run clear and chicken is white not pink).</i> • <i>Know how to create, plan, prepare and cook a healthy evening meal using a heat source.</i> • <i>Know how to select and use appropriate cooking techniques for a healthy evening meal (e.g. chopping, kneading, grating and mixing).</i> 	<p><i>preparation, food products, raw meats, stored, prepare, cooking, packaging, cooked, create, plan, prepare, cook, heat source, cooking techniques, chopping, kneading, grating, mixing</i></p>	