



Design Technology

DT Progression Knowledge/ Skills

Substantive - Practical Knowledge, Substantive - Theoretical Knowledge and Disciplinary Knowledge: How experts have expressed quality and value throughout history

	Nursery	Reception	Year 1	Year 2
Structures				
Design	<ul style="list-style-type: none"> • Explore different materials, using all their senses to investigate them. • Manipulate and play with different materials. • Use their imagination as they consider what they can do with different materials. • Explore different materials freely, in order to develop their ideas about how to use them and what to make. • Join different materials and explore different textures. • Develop their own ideas and then decide which materials to use to express them. 	<ul style="list-style-type: none"> • Create collaboratively sharing ideas, resources and skills. • Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. • Use a range of small tools, including scissors, paintbrushes and cutlery. 	<ul style="list-style-type: none"> • Recognise the importance of a clear design criteria. • Select and include individual preferences and requirements in a design. 	<ul style="list-style-type: none"> • Design and describe ideas using sketching and modelling. • Compare different types of structures, found in the natural world and in everyday objects.
Make	<ul style="list-style-type: none"> • Explore different materials, using all their senses to investigate them. • Manipulate and play with different materials. • Make simple models which express their ideas. 	<ul style="list-style-type: none"> • Create collaboratively sharing ideas, resources and skills. • 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"> • Make stable structures from card, tape and glue. • Sequence and follow instructions to cut and assemble the supporting structure of a windmill. • Make functioning turbines and axles which are 	<ul style="list-style-type: none"> • Make a structure to match a design criteria. • Make joints and structures from paper/card and tape.

	<ul style="list-style-type: none"> • Explore different materials freely, in order to develop their ideas about how to use them and what to make. • Join different materials and explore different textures. • Make imaginative and complex 'small worlds' with blocks and construction kits, such as a city with different buildings and a park. • Build with a range of resources. • Select and use activities and resources, with help when needed. This helps them to achieve a goal they have chosen, or one which is suggested to them. • Develop manipulation and control. • Explore different materials and tools. 	<ul style="list-style-type: none"> • Select, rotate and manipulate shapes in order to develop spatial reasoning skills. • Use a range of small tools, including scissors, paintbrushes and cutlery. 	<p>assembled into a main supporting structure.</p>	
<p>Evaluate</p>	<ul style="list-style-type: none"> • Use their imagination as they consider what they can do with different materials. • Develop their own ideas and then decide which materials to use to express them. • Use a wider range of vocabulary • Notice and correct an error in a repeating pattern. 	<ul style="list-style-type: none"> • Return to and build on their previous learning, refining ideas and developing their ability to represent them. • Share their creations, explaining the process they have used. • Select, rotate and manipulate shapes in order to develop spatial reasoning skills. 	<ul style="list-style-type: none"> • Evaluate a windmill according to the design criteria, testing whether the structure is strong and stable and altering it if it isn't. • Identify points for improvements. 	<ul style="list-style-type: none"> • Observe the features of structures. • Compare the stability of different shapes. • Identify the strength of my own structure. • Identify the weakest part of a structure. • Evaluate the strength, stiffness and stability of my own structure.

<p>Technical Knowledge</p>	<ul style="list-style-type: none"> • Respond to what they have heard, expressing their thoughts and feelings. • Repeat actions that have an effect. • Use a wider range of vocabulary • Explore materials with different properties. • Explore natural materials, indoors and outside. 	<ul style="list-style-type: none"> • Create collaboratively sharing ideas, resources and skills. • 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"> • Describe the purpose of structures, including windmills. • Identify and turn 2D nets into 3D structures. • Recognise that the shape of materials can be changed to improve the strength and stiffness of structures. • Demonstrate understanding that cylinders are a strong type of structure that are often used for windmills and lighthouses. • Describe how windmill turbines use wind to turn and make the machines inside work. • Recall that axles are used in structures and mechanisms to make parts turn in a circle. • Describe the different purposes of different structures. 	<ul style="list-style-type: none"> • Identify natural and man-made structures. • Compare the stability of different structures. • Recall that shapes and structures with wide, flat bases or legs are the most stable. • Demonstrate understanding that the shape of a structure affects its strength. • Select and use the correct vocabulary: strength, stiffness and stability. • Describe how different materials can be changed to improved strength and stiffness. • Make a strong and stiff structure by folding paper.
<p>Mechanisms</p>				

<p>Design</p>	<ul style="list-style-type: none"> • Explore different materials, using all their senses to investigate them. • Manipulate and play with different materials. • Use their imagination as they consider what they can do with different materials. • Explore different materials freely, in order to develop their ideas about how to use them and what to make. • Join different materials and explore different textures. • Develop their own ideas and then decide which materials to use to express them. 	<ul style="list-style-type: none"> • Create collaboratively sharing ideas, resources and skills. • Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. • Use a range of small tools, including scissors, paintbrushes and cutlery. 	<ul style="list-style-type: none"> • Give reasons about how to adapt mechanisms, using bridges or guides to control the movement. • Design a moving story book for a given audience. • Design a vehicle that includes wheels, axles and axle holders, which will allow the wheels to move. • Make clearly labelled drawings which show movement. 	<ul style="list-style-type: none"> • Select design criteria (as a class) for a moving character. • Design a moving character for a specific audience, matching the design criteria. • Select a linkage system to create the correct motion. • Design a wheel. • Speculate about the best materials based on their properties.
<p>Make</p>	<ul style="list-style-type: none"> • Explore different materials, using all their senses to investigate them. • Manipulate and play with different materials. • Make simple models which express their ideas. • Explore different materials freely, in order to develop their ideas about how to use them and what to make. • Join different materials and explore different textures. • Make imaginative and complex ‘small worlds’ with blocks and construction kits, such as a city with different buildings and a park. 	<ul style="list-style-type: none"> • Create collaboratively sharing ideas, resources and skills. • Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. • Select, rotate and manipulate shapes in order to develop spatial reasoning skills. • Use a range of small tools, including scissors, paintbrushes and cutlery. 	<ul style="list-style-type: none"> • Sequence and follow a design to create moving models that use levers and sliders. • Adapt mechanisms. 	<ul style="list-style-type: none"> • Make linkages using card for levers and split pins for pivots. • Adapt the widths, lengths, and thickness of card used for linkages. • Demonstrate understanding of cutting and assembling components neatly. • Select materials according to their properties. • Observe and follow a design brief.

	<ul style="list-style-type: none"> • Build with a range of resources. • Select and use activities and resources, with help when needed. This helps them to achieve a goal they have chosen, or one which is suggested to them. • Develop manipulation and control. • Explore different materials and tools. 			
Evaluate	<ul style="list-style-type: none"> • Use their imagination as they consider what they can do with different materials. • Develop their own ideas and then decide which materials to use to express them. • Use a wider range of vocabulary • Notice and correct an error in a repeating pattern. 	<ul style="list-style-type: none"> • Return to and build on their previous learning, refining ideas and developing their ability to represent them. • Share their creations, explaining the process they have used. • Select, rotate and manipulate shapes in order to develop spatial reasoning skills. 	<ul style="list-style-type: none"> • Test a finished product, seeing whether it moves as planned and if not, give reasons why and how it can be fixed. • Evaluate the success of a product by testing it with its intended audience. • Test mechanisms, identifying what stops wheels from turning. • Recall that a wheel needs an axle in order to move. 	<ul style="list-style-type: none"> • Evaluate my own designs against design criteria. • Use peer feedback to adapt my final design. • Evaluate different designs.
Technical Knowledge	<ul style="list-style-type: none"> • Respond to what they have heard, expressing their thoughts and feelings. • Repeat actions that have an effect. • Use a wider range of vocabulary 	<ul style="list-style-type: none"> • Create collaboratively sharing ideas, resources and skills. • 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"> • Recall that levers and sliders are mechanisms and can make things move. • Identify whether a mechanism is a lever or slider and determine what movement the mechanism will make. 	<ul style="list-style-type: none"> • Recall what a mechanism is. • Identify the input and output in a mechanism. • Identify mechanisms in everyday objects. • Recognise that a lever is something that turns on a

	<ul style="list-style-type: none"> • Explore materials with different properties. • Explore natural materials, indoors and outside. 		<ul style="list-style-type: none"> • Select and use the correct vocabulary: up, down, left, right, vertical and horizontal to describe movement. • Identify what mechanism makes a toy or vehicle roll forwards. • Recall that for a wheel to move it must be attached to an axle. 	<p>pivot.</p> <ul style="list-style-type: none"> • Recall what a linkage is. • Observe wheel mechanisms. • Summarise how axels help wheels to move a vehicle.
Textiles				
Design	<ul style="list-style-type: none"> • Explore different materials, using all their senses to investigate them. • Manipulate and play with different materials. • Use their imagination as they consider what they can do with different materials. • Explore different materials freely, in order to develop their ideas about how to use them and what to make. • Join different materials and explore different textures. • Develop their own ideas and then decide which materials to use to express them. 	<ul style="list-style-type: none"> • Create collaboratively sharing ideas, resources and skills. • Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. • Use a range of small tools, including scissors, paintbrushes and cutlery. 	<ul style="list-style-type: none"> • Observe and use a template to create a design for a puppet. 	<ul style="list-style-type: none"> • Design a pouch.
Make	<ul style="list-style-type: none"> • Explore different materials, using all their senses to investigate them. 	<ul style="list-style-type: none"> • Create collaboratively sharing ideas, resources and skills. 	<ul style="list-style-type: none"> • Select and cut fabric neatly with scissors. • Select and use joining 	<ul style="list-style-type: none"> • Select and cut fabrics for sewing. • Select and use fabric

	<ul style="list-style-type: none"> • Manipulate and play with different materials. • Make simple models which express their ideas. • Explore different materials freely, in order to develop their ideas about how to use them and what to make. • Join different materials and explore different textures. • Make imaginative and complex ‘small worlds’ with blocks and construction kits, such as a city with different buildings and a park. • Build with a range of resources. • Select and use activities and resources, with help when needed. This helps them to achieve a goal they have chosen, or one which is suggested to them. • Develop manipulation and control. • Explore different materials and tools. 	<ul style="list-style-type: none"> • Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. • Select, rotate and manipulate shapes in order to develop spatial reasoning skills. • Use a range of small tools, including scissors, paintbrushes and cutlery. 	<p>methods to decorate a puppet.</p> <ul style="list-style-type: none"> • Sequence steps for construction. 	<p>glue or a running stitch.</p>
Evaluate	<ul style="list-style-type: none"> • Use their imagination as they consider what they can do with different materials. • Develop their own ideas and then decide which materials to use to express them. • Use a wider range of vocabulary 	<ul style="list-style-type: none"> • Return to and build on their previous learning, refining ideas and developing their ability to represent them. • Share their creations, explaining the process they have used. • Select, rotate and manipulate shapes in order to 	<ul style="list-style-type: none"> • Reflect on a finished product, giving reasons about my likes and dislikes. 	<ul style="list-style-type: none"> • Speculate to solve problems suggested by the teacher. • Evaluate the quality of stitching on others’ work. • Identify the success of my stitching against a success criteria.

	<ul style="list-style-type: none"> • Notice and correct an error in a repeating pattern. 	develop spatial reasoning skills.		<ul style="list-style-type: none"> • Identify what I like in my peers' work, and give reasons why.
Technical Knowledge	<ul style="list-style-type: none"> • Respond to what they have heard, expressing their thoughts and feelings. • Repeat actions that have an effect. • Use a wider range of vocabulary • Explore materials with different properties. • Explore natural materials, indoors and outside. 	<ul style="list-style-type: none"> • Create collaboratively sharing ideas, resources and skills. • 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"> • Describe different ways in which to join fabrics together: pinning, stapling, gluing. 	<ul style="list-style-type: none"> • Select fabric glue or stitching to join fabrics and identify the benefits of each technique. • Select and thread a needle. • Recognise and sew a running stitch with evenly spaced, neat, even stitches to join fabrics. • Select, pin and cut fabric neatly using a template.
Cooking and Nutrition				
Design	<ul style="list-style-type: none"> • Explore different materials, using all their senses to investigate them. • Manipulate and play with different materials. • Use their imagination as they consider what they can do with different materials. • Explore different materials freely, in order to develop 	<ul style="list-style-type: none"> • Create collaboratively sharing ideas, resources and skills. • Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. • Use a range of small tools, including scissors, paintbrushes and cutlery. 		<ul style="list-style-type: none"> • Design a healthy snack based on food combinations which work well together.

	<p>their ideas about how to use them and what to make.</p> <ul style="list-style-type: none"> • Join different materials and explore different textures. • Develop their own ideas and then decide which materials to use to express them. • Try a wider range of foods with different tastes and textures. 			
<p>Make</p>	<ul style="list-style-type: none"> • Explore different materials, using all their senses to investigate them. • Manipulate and play with different materials. • Make simple models which express their ideas. • Explore different materials freely, in order to develop their ideas about how to use them and what to make. • Join different materials and explore different textures. • Make imaginative and complex 'small worlds' with blocks and construction kits, such as a city with different buildings and a park. • Build with a range of resources. • Select and use activities and resources, with help when needed. This helps them to achieve a goal they 	<ul style="list-style-type: none"> • Create collaboratively sharing ideas, resources and skills. • Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. • Select, rotate and manipulate shapes in order to develop spatial reasoning skills. • Use a range of small tools, including scissors, paintbrushes and cutlery. 	<ul style="list-style-type: none"> • Select the correct tools and grip to chop fruit and vegetables safely. • Identify if a food is a fruit or a vegetable. • Recall where and how fruits and vegetables grow. 	<ul style="list-style-type: none"> • Select the correct tools and grip to slice food safely. • Make a snack that meets a design brief.

	<p>have chosen, or one which is suggested to them.</p> <ul style="list-style-type: none"> • Develop manipulation and control. • Explore different materials and tools. 			
Evaluate	<ul style="list-style-type: none"> • Use their imagination as they consider what they can do with different materials. • Develop their own ideas and then decide which materials to use to express them. • Use a wider range of vocabulary • Notice and correct an error in a repeating pattern. • Try a wider range of foods with different tastes and textures. 	<ul style="list-style-type: none"> • Return to and build on their previous learning, refining ideas and developing their ability to represent them. • Share their creations, explaining the process they have used. • Select, rotate and manipulate shapes in order to develop spatial reasoning skills. • Use a range of small tools, including scissors, paintbrushes and cutlery. 	<ul style="list-style-type: none"> • Taste and evaluate different food combinations. • Describe appearance, smell and taste. • Select information to be included on packaging. 	<ul style="list-style-type: none"> • Describe the taste, texture and smell of fruit and vegetables. • Evaluate food combinations and final products by taste testing. • Describe the information that should be included on a label. • Evaluate which grip was the most effective.
Technical Knowledge	<ul style="list-style-type: none"> • Respond to what they have heard, expressing their thoughts and feelings. • Repeat actions that have an effect. • Use a wider range of vocabulary • Explore materials with different properties. • Explore natural materials, indoors and outside. 	<ul style="list-style-type: none"> • Create collaboratively sharing ideas, resources and skills. • Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. 	<p>Compare and contrast the difference between fruits and vegetables.</p> <ul style="list-style-type: none"> • Describe and classify fruits by texture and taste. 	<ul style="list-style-type: none"> • Describe what makes a balanced diet. • Identify where to find the nutritional information on packaging. • Recall the five food groups.

	Year 3	Year 4	Year 5	Year 6
Structures				
Design	<ul style="list-style-type: none"> • Design a castle with key features to appeal to specific person and purpose. • Describe my drawing using 2D shapes, labelling: 3D shapes that will create the features, materials needed, colours. 	<ul style="list-style-type: none"> • Design a stable pavilion structure that is aesthetically pleasing. • Select materials to create a desired effect. • Design a frame structure to support weight. 	<ul style="list-style-type: none"> • Design a stable structure that can support weight. • Design a frame structure with a focus on triangulation. 	<ul style="list-style-type: none"> • Design a playground with a variety of structures. • Come to informed conclusions about effective and ineffective designs.
Make	<ul style="list-style-type: none"> • Make a range of 3D geometric shapes using nets. • Select special features for individual designs. • Make facades from a range of recycled materials. 	<ul style="list-style-type: none"> • Make a variety of frame structures, including free standing, and different shapes and sizes. • Select appropriate materials to build a strong structure and for the cladding. • Make reinforced corners. • Make different textural effects with materials. 	<ul style="list-style-type: none"> • Make a range of beam bridges. • Apply knowledge of triangles to create truss bridges that meet specific requirements. • Make a wooden bridge structure. • Apply my skills to measure and mark wood accurately. • Select appropriate tools and equipment. • Apply and use the correct techniques to saws. • Identify where a structure needs reinforcement and use card corners for support. 	<ul style="list-style-type: none"> • Make a range of play apparatus structures by using new and prior knowledge. • Make a range of structures by measuring, marking and cutting wood. • Apply knowledge of materials to reinforce and add decorations to structures.

Evaluate	<ul style="list-style-type: none"> • Evaluate my own and others' work based on aesthetics. • Compare the finished product to the original design. • Recognise and suggest points to modify individual designs. 	<ul style="list-style-type: none"> • Evaluate structures made by my class. • Describe which characteristics of a design and construction make it the most effective. • Use reasoned judgements to consider effective and ineffective designs. 	<ul style="list-style-type: none"> • Adapt and improve my own bridge structure by reinforcing points of weakness. • Critique and suggest improvements. 	<ul style="list-style-type: none"> • Modify and improve a design plan based on peer evaluations. • Modify a design by continuously testing it. • Articulate what makes a successful structure.
Technical Knowledge	<ul style="list-style-type: none"> • Identify features of a castle. • Identify and select suitable materials, considering weight, compression and tension. • Explain that wide and flat based objects are more stable. • Select and use the vocabulary: strut, tie, span, beam. • Compare and explain the difference between frame and shell structures. 	<ul style="list-style-type: none"> • Recall what pavilions are and their purpose. • Develop my understanding of net and frame structures. • Recognise that architects consider light, shadow and patterns when designing. • Demonstrate understanding of frame and shell structures. 	<ul style="list-style-type: none"> • Develop my understanding of strong beams. • Identify arch and beam bridges. • Select and use the vocabulary compression and tension. • Compare the strength of structures. • Demonstrate understanding of ways to reinforce structures. • Explain how triangles can be used to reinforce bridges. • Articulate the difference between beam, arch, truss and suspension bridges.. 	<ul style="list-style-type: none"> • Recall how structures can be strengthened. • Identify the shell structure in everyday life. • Classify man-made and natural structures.
Mechanisms				

Design	<ul style="list-style-type: none"> • Design a toy which uses a pneumatic system. • Develop a design criteria from a design brief. • Use thumbnail sketches and exploded diagrams to explain my ideas clearly. 	<ul style="list-style-type: none"> • Design a shape that reduces air resistance. • Design a net to create a structure from. • Select shape that increase or decrease speed. • Modify and personalise a design . 	<ul style="list-style-type: none"> • Design a range of popup structures and mechanisms. • Identify the mechanisms, input and output. • Use storyboarding when designing a product. 	<ul style="list-style-type: none"> • Demonstrate understanding of cams. • Design an automata toy based on a choice of cam to create desired movements. • Explain how linkages work. • Design mechanisms that make things move at the same time.
Make	<ul style="list-style-type: none"> • Make a pneumatic system to create a specific motion. • Make secure housing for my pneumatic system. • Select and use syringes and balloons to create different types of pneumatic systems, making a functional and appealing toy. • Select materials based on their functional and aesthetic characteristics. • Manipulate materials to create different effects by cutting, creasing, folding and weaving. 	<ul style="list-style-type: none"> • Make a model by measuring, marking, cutting and assembling with accuracy. • Make a model based on a chosen design. 	<ul style="list-style-type: none"> • Sequence and follow a design brief accurately. • Make mechanisms and structures using sliders, pivots and folds for movement. • Apply knowledge of aesthetics to hide mechanisms. 	<ul style="list-style-type: none"> • Make a model by measuring, marking and cutting components accurately, checking the accuracy of jelutong and dowel pieces. • Make a stable frame • Demonstrate understanding of frames. • Select appropriate materials based on joining techniques and the setting speed of glue .
Evaluate	<ul style="list-style-type: none"> • Synthesise the views of 	<ul style="list-style-type: none"> • Evaluate the speed of a final 	<ul style="list-style-type: none"> • Evaluate and suggest 	<ul style="list-style-type: none"> • Evaluate the work of

	<p>others to improve my designs.</p> <ul style="list-style-type: none"> • Test and modify products, suggesting improvements. 	<p>product based on the shape and the accuracy of workmanship.</p>	<p>improvements.</p>	<p>others and receive feedback.</p> <ul style="list-style-type: none"> • Apply points of improvements. • Articulate the changes I would do if repeating the project.
Technical Knowledge	<ul style="list-style-type: none"> • Explain how pneumatic systems work. • Recall that mechanisms are systems of parts that work together to create motion. • Recognise how pneumatic systems can be used as part of a mechanism. • Explain how pneumatic systems use air to create movement. 	<ul style="list-style-type: none"> • Recognise that products change over time. • Recall that all moving things have kinetic energy. • Explain what kinetic energy is. 	<ul style="list-style-type: none"> • Explain 'input' and 'output'. • Recall that mechanisms control movement. • Describe mechanisms that change motion. 	<ul style="list-style-type: none"> • Apply knowledge and use a bench hook to saw safely and effectively. • Explore cams, making links between shapes and movements. • Explore types and directions of motion.
Electrical Systems				
Design	<ul style="list-style-type: none"> • Design a game that works using static electricity, including a sequence of instructions. • Identify a design criteria and a target audience. 	<ul style="list-style-type: none"> • Design a torch, considering the target audience. • Select and create design and success criteria focusing on features of individual design ideas. 	<ul style="list-style-type: none"> • Design an electronic greetings card. • Create a labelled design, showing positive and negative parts in relation to the LED and battery. 	<ul style="list-style-type: none"> • Design a steady hand game from three different perspectives. • Identify and name the required components. • Design prototypes to model my ideas.

Make	<ul style="list-style-type: none"> • Make an electrostatic game, referring to a design criteria. • Select and use a wide range of materials and equipment safely. • Make electrostatic energy to move objects in isolation as well as in part of a system. 	<ul style="list-style-type: none"> • Make a torch with a working electrical circuit and switch. • Select and use appropriate equipment to cut and attach materials. • Sequence and follow design and success criteria when assembling my torch. 	<ul style="list-style-type: none"> • Make a working electrical circuit. • Apply a design criteria. • Articulate different components of the circuit. 	<ul style="list-style-type: none"> • Make electromagnetic motors, modifying the motor to improve its function. • Make a stable base . • I can make my game by accurately cutting, folding and assembling a net. • Demonstrate understanding of decorations. • Make and test a circuit, incorporating it into my base .
Evaluate	<ul style="list-style-type: none"> • Use reasoned judgements to provide constructive criticism on my own work and the work of others. • Make informed conclusions about a product, using the original design criteria. 	<ul style="list-style-type: none"> • Use evaluate electrical products. • Test and evaluate the success of a final product. • Modify final products based on the work of my peers. 	<ul style="list-style-type: none"> • Evaluate against an original design. • Modify final products to improve reliability, aesthetics or to include a different electronic device. 	<ul style="list-style-type: none"> • Test and evaluate finished games. • Articulate what went well and ways to improve.
Technical Knowledge	<ul style="list-style-type: none"> • Explain what static electricity is and how it moves objects. • Demonstrate 	<ul style="list-style-type: none"> • Explain how electrical items work. • Identify electrical products. • Explain how batteries work. 	<ul style="list-style-type: none"> • Identify the key components of a circuit. • Explain the use of graphite in a circuit. 	<ul style="list-style-type: none"> • Explain how electromagnetic motors work. • Explain the dangers of

	<p>understanding by generating static electricity on my own.</p> <ul style="list-style-type: none"> • Manipulate static electricity to make objects move in a desired way. 	<ul style="list-style-type: none"> • Identify the features of a torch. • Compare different torches, using reasoned judgements to decide on the positives and negatives. 	<ul style="list-style-type: none"> • Compare series and parallel circuits. • Explain what happens when a circuit breaks. 	<p>batteries .</p> <ul style="list-style-type: none"> • Select and use the vocabulary magnetic field.
Textiles				
Design	<ul style="list-style-type: none"> • Design and make a template from an existing cushion, applying individual design criteria. 	<ul style="list-style-type: none"> • Write a design criteria for a product, explaining the decisions I make. • Design a personalised book sleeve. 	<ul style="list-style-type: none"> • Design a stuffed toy. • Apply knowledge of component proportions. 	<ul style="list-style-type: none"> • Justify my designs through specification that link. to design criteria and a specific theme. • Design a waistcoat. • Articulate my design through annotations.
Make	<ul style="list-style-type: none"> • Sequence and follow a design criteria to create a cushion. • Select and cut fabrics. • I can select and use cross stitch to join fabric. • Select and use applique to decorate fabrics. • Make and complete design ideas with stuffing and sewing the edges. 	<ul style="list-style-type: none"> • Make and test a paper template with accuracy and considering the design criteria. • Make my product by measuring, marking and cutting fabric using a paper template. • Select a stitch style to join fabric, working neatly and sewing small stitches. • Select a fastening for my design. 	<ul style="list-style-type: none"> • Make a 3D stuffed toy from a 2D design. • Apply knowledge to measure, mark and cut fabric. • Make strong and secure blanket stitches. • Select and use applique. 	<ul style="list-style-type: none"> • Make and use template pinning panels onto fabric. • Make my design by marking and cutting fabric accurately. • Make and sew a strong running stitch. • Make and tie strong knots. • Make and decorate my waistcoat, attaching objects using thread and secure fastenings.

Evaluate	<ul style="list-style-type: none"> • Evaluate an end product, thinking of ways to create similar items. 	<ul style="list-style-type: none"> • Test and evaluate an end product against the original design criteria. • Use reasoned judgements to decide how many of the criteria need to be met. • Suggest ways to modify and improve a product. 	<ul style="list-style-type: none"> • Test and evaluate an end product . • Suggest ways to modify and improve a product. 	Test and evaluate work continually.
Technical Knowledge	<ul style="list-style-type: none"> • Select and thread a needle on my own. • Select and tie knots on my own. • Select and sew cross stitch and use applique. • Recognise the need to count the thread on a piece of weave fabric in each direction. • Describe how fabrics can be layered for affect. 	<ul style="list-style-type: none"> • Recall the different types of fastenings. • Explain the benefits and disadvantages of different fastening types. 	<ul style="list-style-type: none"> • Apply knowledge of blanket stitches to join fabric with even spacing. • Apply knowledge of threading needles independently. 	<ul style="list-style-type: none"> • Apply different decorative stitches. • Apply different sewing techniques, ensuring accuracy and even stitches .
Cooking and Nutrition				
Design	<ul style="list-style-type: none"> • Design a health and nutritious recipe using seasonal ingredients, considering taste, texture, 	<ul style="list-style-type: none"> • Design a product within a given budget, recalling previous taste testing. 	<ul style="list-style-type: none"> • Adapt a traditional recipe. • Explain how nutritional values will change. • Modify the method based 	<ul style="list-style-type: none"> • Articulate key steps, methods and ingredients when writing a recipe. • Apply research to include

	smell and appearance.		on new ingredients. • Design an appealing packaging based on the recipe.	facts and drawings in my recipe.
Make	<ul style="list-style-type: none"> • Demonstrate understanding of how to avoid food contamination, preparing myself and my work space to cook safely in. • Sequence and follow instructions within a recipe. 	<ul style="list-style-type: none"> • Sequence and follow a baking recipe. • Demonstrate understanding of how to cook safely, following basic hygiene rules. • Adapt a recipe. 	<ul style="list-style-type: none"> • Apply knowledge of cutting and preparing vegetables safely. • Apply knowledge of equipment, including knives, hot pans and hobs. • Apply knowledge of cross contamination. • Follow a method to make a recipe. 	<ul style="list-style-type: none"> • Sequence and follow a recipe, using the correct quantities of each ingredient and working to a given timescale. • Demonstrate understanding of how to cook safely and hygienically. • Adapt a recipe based on research.
Evaluate	<ul style="list-style-type: none"> • Use design criteria to test and evaluate dishes. • Describe the benefits of seasonal vegetables and the impact on the environment. • Explain points for improvement when making a seasonal meal. 	<ul style="list-style-type: none"> • Evaluate a recipe, considering: taste, smell, texture and appearance. • Describe the impact of the budget on the selection of ingredients. • Evaluate and compare a range of products. • Suggest ways to modify the recipe. 	<ul style="list-style-type: none"> • Identify the nutritional differences between products and recipes. • Articulate health benefits of food groups. 	<ul style="list-style-type: none"> • Evaluate a recipe, considering: taste, smell, texture and origin of the food group. • Evaluate and compare a final products by taste testing. • Suggest and ways to modify the recipe, articulating improvements in writing. • Evaluate health and

				safety in production to minimize cross contamination.
Technical Knowledge	<ul style="list-style-type: none"> • Recognise that climate affects food growth. • Select and use cooking equipment safely and hygienically. • Recognise that imported foods travel from far away and this can have a negative impact on the environment. • Recall which vegetables and fruit grow in different seasons. • Compare the nutritional benefits of different fruit and vegetables. • Select, use, store and clean a knife safely. 	<ul style="list-style-type: none"> • Recognise the impact of cost and the importance of budgeting while planning. • Recognise the environmental impact on future products and the cost of production. 	<ul style="list-style-type: none"> • Recall where food comes from and how it is processed . • Explain what a balanced diet includes. • Modify a recipe to make it healthier. • Compare two adapted recipes and identify the healthier option using a nutritional calculator. 	<ul style="list-style-type: none"> • Apply research skills to find recipes by ingredient. • Identify and record ingredients and equipment. • Demonstrate understanding of complimentary food combinations. • Demonstrate understanding of where food comes from, describing the 'Farm to Fork' process for a given ingredient.