



Design Technology Progression at St Gregory's



Autumn Term	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Project and focus	<p>Project: Design and create a moving school bus using sliders and levers.</p> <p>Focus: Understanding how different moving parts affect product usability.</p>	<p>Project: Create a moving world map with a rotating globe using wheels and axles.</p> <p>Focus: Understanding how wheels and axles allow movement and improve functionality in products.</p>	<p>Project: Design and sew a European flag-inspired fabric pencil case.</p> <p>Focus: The impact of colour and pattern on product appeal.</p>	<p>Project: Create a dish inspired by a different continent</p> <p>Focus: Evaluating global food choices and their impact</p>	<p>Project: Design a sustainable rainforest-inspired snack</p> <p>Focus: Evaluating sustainability in food production</p>	<p>Project: Design and make a working model of a light-up trail sign</p> <p>Focus: How electrical elements enhance safety in products</p>
Research	Understand how simple mechanisms (sliders and levers) work in everyday objects.	Explore how wheels and axles allow movement in products.	Understand how colour and pattern are used in European flags and textiles.	Understand how food varies across continents and why	Understand rainforest foods and the role of Fairtrade and sustainability	Understand how signage improves safety and guidance
Design	Plan and design a school bus that incorporates sliders and levers.	Plan the layout and mechanism of the rotating map.	Plan and design a pencil case inspired by a European flag.	Plan a dish inspired by a specific continent	Taste and evaluate ingredients for flavour, texture, and sustainability	Design a trail sign incorporating electrical features
Make 1	Begin constructing the school bus, focusing on the main body structure.	Begin making the product by assembling the moving parts.	Practise basic sewing techniques	Prepare and cook the dish safely and hygienically	Design a healthy and sustainable snack product	Construct the physical structure of the sign



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			for assembling a textile product.			
Make 2	Incorporate sliders and levers to create movement.	Finalise the product by adding detail and ensuring functionality.	Construct the pencil case following a design plan.	Use presentation techniques to enhance food appeal	Make the snack following hygiene and safety rules	Assemble and test an LED electrical circuit
Evaluate	Evaluate the effectiveness of the product and suggest improvements.	Reflect on the effectiveness of the product and suggest improvements.	Assess the final product and suggest improvements based on design and functionality.	Evaluate taste, presentation, and cultural authenticity	Evaluate taste, appeal, and sustainability	Evaluate effectiveness, visibility, and user safety

Spring Term

Spring Term	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
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Project and focus	<p>Project: Build a windproof shelter for a toy figure using different materials.</p> <p>Focus: Testing and evaluating materials for durability and effectiveness in different weather conditions.</p>	<p>Project: Design and sew a simple fabric pouch for medical supplies.</p> <p>Focus: Evaluating fabric choices for practicality and hygiene.</p>	<p>Project: Recreate a Roman-inspired bread recipe.</p> <p>Focus: Evaluating historical vs. modern food preparation methods.</p>	<p>Project: Design a working blackout warning light</p> <p>Focus: Understanding the effectiveness of warning signals in product design</p>	<p>Project: Build a model of an industrial Victorian bridge</p> <p>Focus: Evaluating historical vs. modern structural stability</p>	<p>Project: Create a Greek-inspired feast with a focus on balanced nutrition</p> <p>Focus: Evaluating historical diets vs. modern nutrition</p>
Research	Understand what makes a strong and stable structure and explore different materials.	Understand different fabric types and their properties.	Understand the importance of bread in Roman Britain and compare it to modern bread.	Understand the purpose of blackout lights during WWII	Understand features of Victorian bridges and compare with modern designs	Understand ancient Greek diets and compare with modern healthy eating
Design	Plan and design a windproof shelter using different materials.	Plan and design the fabric pouch.	Identify key ingredients and steps in making Roman-style bread.	Explore how electrical circuits work using components	Investigate shapes and structures to understand strength and stability	Explore ingredients for flavour and nutritional value
Make 1	Construct the main frame of the shelter using wooden sticks and tape.	Learn and practise basic stitching techniques.	Follow a recipe to mix and knead dough safely and effectively.	Design a functioning blackout warning light	Design a bridge reflecting Victorian structure and style	Design a balanced Greek-inspired dish



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Make 2	Attach walls and roofs using different materials and ensure stability.	Assemble and sew the fabric pouch.	Bake the bread and observe changes during cooking.	Construct and test an electrical warning system	Construct a stable bridge model using appropriate materials	Prepare food safely and hygienically
Evaluate	Test the shelter for wind resistance and evaluate its effectiveness.	Assess the finished product and suggest improvements.	Compare the Roman bread to modern bread and assess the final product.	Evaluate the effectiveness and reliability of the final product	Evaluate strength, stability, and historical accuracy	Evaluate taste, presentation, nutrition, and historical inspiration

Summer Term

Summer Term	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Project and focus	<p>Project: Design and make a healthy seaside picnic box.</p> <p>Focus: Evaluating food packaging for portability, freshness, and appeal.</p>	<p>Project: Create a pop-up royal invitation using linkages.</p> <p>Focus: Exploring how different mechanisms enhance interactive products.</p>	<p>Project: Design a simple cam-operated shaduf (ancient Egyptian water lifter).</p> <p>Focus: How simple mechanical systems improve efficiency.</p>	<p>Project: Create a working alarm system for a 'crime scene'</p> <p>Focus: Evaluating security product reliability</p>	<p>Project: Design and sew a fabric patchwork inspired by 1960s fashion</p> <p>Focus: Evaluating trends in product appeal</p>	<p>Project: Build a moving Viking longship with pulleys and gears</p> <p>Focus: Evaluating efficiency in transport design</p>



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Research	Identify what makes a healthy and practical picnic meal and explore different food packaging materials.	Understand how linkages create movement in paper products.	Understand how a shaduf works and why ancient Egyptians used it.	Understand the purpose of alarm systems and basic circuits	Understand how 1960s fashion influenced textile design and appeal	Understand Viking longship design and efficiency
Design	Plan the contents of a healthy seaside picnic and design the packaging.	Plan and design a royal invitation with a moving feature.	Learn how cams convert rotary motion into linear motion.	Design an alarm system that responds to unauthorised movement	Plan and sketch a 1960s-inspired patchwork design	Design a longship with moving parts using pulleys or gears
Make 1	Prepare simple picnic foods using safe and hygienic methods.	Practise making and assembling simple linkages.	Design a cam-operated shaduf model.	Construct the alarm system using electrical components	Learn and practise joining fabric pieces securely	Begin constructing the base and structure of the Viking longship
Make 2	Assemble and decorate the picnic box for presentation.	Construct the pop-up invitation using their design.	Construct a working shaduf with a cam mechanism.	Test and refine the alarm for reliability	Assemble and finish the patchwork design	Assemble and test the mechanical system
Evaluate	Evaluate the effectiveness of the picnic box in keeping	Assess the final product and suggest improvements.	Evaluate the functionality and	Evaluate effectiveness, reliability, and appeal	Evaluate the finished patchwork and its appeal as a product	Evaluate the finished product for functionality, historical accuracy, and transport efficiency



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	food fresh, portable, and appealing.		effectiveness of the mechanical model.			
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End of Key Stage Expectations

End of Key Stage 1	End of Key Stage 2
<ul style="list-style-type: none"> • Design: Design purposeful products for themselves and others based on design criteria. • Make: Select from and use a range of tools and materials (textiles, structures, food) safely and effectively. • Evaluate: Explore and evaluate a variety of existing products. • Technical: Build structures (e.g., strong, stable structures) and explore mechanisms (e.g., levers, wheels). 	<ul style="list-style-type: none"> • Design: Generate, develop, and model ideas through sketches and prototypes, considering user needs. • Make: Select from a wider, more complex range of materials and tools, including CAM (Computer Aided Manufacture). • Evaluate: Evaluate their own ideas and products against a design criteria and consider the views of others.



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- **Technical:** Understand and use electrical systems (e.g., circuits), more advanced mechanical systems, and digital/programmable components.
- **Cooking:** Prepare and cook a variety of savory dishes using a range of cooking techniques.