St Wilfrid's Catholic Academy Design & Technology Whole School Overview

Year groups	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1 & Year 1/2 Cycle A		*Project: making a Christmas cards* Topic: Mechanisms **Design***:* Design a product that moves. Use their own ideas to design something and describes how their own ideas work. **Make**: Make a product which moves. Choose appropriate tools and resources. **Evaluate**: Describe how something works. **Technical Knowledge:** Use own ideas to make something.		*Project: Making a fruit salad* *Topic: Food & Nutrition* **Design:** Use their own ideas to design something and describe how their own idea works. **Make:** Choose appropriate tools and resources. Cut food safely. **Evaluate:** Explain what went well and not so well in the product they have made. **Technical Knowledge:** Use own ideas to make something.		Project: Making a playground Topic: Structures **Design:** Design a product that moves. Use their own ideas to design something and describes how their own ideas work. **Make**: Make a product which moves. Choose appropriate tools and resources. **Evaluate**: Describe how something works. **Technical Knowledge:** Use own ideas to make something.
Year 2 & Year 1/2 Cycle B		*Project: Creating a Hand Puppet* *Topic: Textiles* **Design:** Explain why they have chosen specific textiles. **Make:**		Project: Making a Car Topic: Mechanisms **Design:** Design a product which moves. Use their own ideas to design something and		Project: Making a healthy sandwich. Topic: Food & Nutrition **Design:** Think of an idea and plan what to do next. **Make:**

		Choose tools and materials and explain why they have chosen them. Join materials and components in different ways. **Evaluate:** Explain what went well with their work. **Technical Knowledge:** Make a model stronger or more stable.		describe how their own idea works. Explain to someone else how they want to make their product and make a simple plan before making. **Make:** Make a product which moves. Choose appropriate tools and resources. **Evaluate:** Describe how something works. Explain what works well and not so well in the model that they have made. **Technical Knowledge:** Use own ideas to make something. Make their own model stronger.		Weigh ingredients to use in a recipe. Describe the ingredients used when making a dish for a cake. **Evaluate:** Explain what went well with their work.
Year 3 & Year 3/4 Cycle A		Project: Story Books Topic: Mechanisms **Design:** Design a product and make sure that it looks attractive. Prove that a design meets a set criteria. **Make:** For a given task, work accurately to measure, make cuts and make holes.		*Project: Making a healthy pasta* *Topic: Food and Nutrition* **Design:** To be able to prove a design meets a set criteria To design a product and make sure that it looks attractive. **Make:**		Project: Creating wallets Topic: Textiles **Design:** Design a product and make sure that it looks attractive. Prove that a design meets a set criteria. **Make:**

		Follow a step-by-step plan, choosing the right equipment and materials. **Evaluate:** Explain how to improve a finished model. Know why a model has or has not been successful. **Technical Knowledge:** Know how to strengthen a product by stiffening a given part or reinforce a part of the structure.		To follow a step-by-step plan, choosing the right equipment and materials. **Evaluate:** To be able to explain how to improve a finished model To know why a model has or has not been successful.		Choose a material for both its suitability and appearance. **Evaluate:** Explain how to improve a finished model. Explain why a model has or has not been successful.
Year 4 & Year 3/4 Cycle B		Project: Christmas Gift Boxes Topic: Structures **Design:** Produce a plan and explain it. Communicate ideas in a range of ways, including sketches and drawings which are annotated. Use ideas from other people when designing. To measure accurately. **Make:** Measure accurately. **Evaluate:** Explain how the original design has been improved. Evaluate and suggest improvement for design. Evaluate products for both purpose and design. **Technical Knowledge**:		*Project: Creating a motorised lighthouse* *Topic: Electronics* **Design:** Communicate ideas in a ray of ways, including sketches and drawings which are annotated. Use ideas from other people when designing. Measure accurately. **Make:** To measure accurately. To make a product which uses both electrical and mechanical components. **Evaluate:** Explain how the original design has been improved. Evaluate and suggest improvement for design.		Projects: Creating their own pizzas. Topic: Food & Nutrition **Design:** Produce a plan and explain it. Communicate ideas in a range of ways, including sketches and drawings which are annotated. Use ideas from other people when designing. Measure accurately. **Make:** Know which tools are used for a specific task and show knowledge of handling the tool. Measure accurately. Know how to be both hygienic ans safe when using food.

		Persevere and adapt when original ideas do not work. To know which material is likely to give the best outcome. To present a product in an interesting way.		Evaluate products for both purpose and design. **Technical Knowledge:** To make a product which uses both electronic and mechanical components. To use IT where appropriate to add to the quality of the product. To present the product in an interesting way.		Bring a creative element to the food product being designed. **Evaluate:** Explain how the original design has been improved. Evaluate and suggest improvement for design. Evaluate products for both purpose and design. **Technical Knowledge:** Persevere and adapt when original ideas do not work. Present a product in an interesting way.
Year 5 & Year 5/6 Cycle A		*Project: Building a Shelter* *Topic: Structures* **Design:** Come up with a range of ideas after collecting information Produce a step-by-step plan Suggest alternative plans; outlining the positive features and drawbacks. **Make:** Use a range of tools and equipment competently Make a prototype before making a final version. **Evaluate** Explain how a product will appeal to a specific audience.		*Project: Creating a motorised vehicle* *Topic: Electronics* **Design:** Come up with a range of ideas after collecting information. Produce a step-by-step plan. Suggest alternative plans; outlining the positive features and drawbacks **Make:** Use a range of tools and equipment competently. **Evaluate:**		*Project: Baking Bread* *Topic: Food & Nutrition* **Design:** Show that culture and society is considered in plans and designs. Follow and refine original plans. Use market research to inform plans and ideas. Work within a budget to create a meal. **Make:**

		Evaluate appearance and function against original criteria. **Technical Knowledge** Use more complex IT program to help enhance the quality of the product produced.		Explain how a product will appeal to a specific audience. Evaluate appearance and function against original criteria. **Technical Knowledge:** Use more complex IT program to help enhance the quality of the product produced.		know which tool to use for a specific practical task know how to use any tool correctly and safely know what each tool is used for explain why a specific tool is best for a specific action work with a budget to create a meal **Evaluate:** Know how to test and evaluate my products. Evaluate product against clear criteria. **Technical Knowledge:** Explain how food ingredients should be stored and give reasons. Understand the difference between a savoury and sweet dish.

Year 6 & Year 5/6 Cycle B	N/A	Project: T-Shirts to Tote Bags Topic: Structures **Design:** Show that culture and society is considered in plans and designs. Follow and refine original plans. Use market research to inform plans and ideas. Justify planning in a convincing way. **Make:** Know which tool to use for a specific practical task. Know how to use any tool correctly and safely. Explain why a specific tool is best for a specific action. **Evaluate:** Know how to test and evaluate my products. Evaluate product against clear criteria. **Technical Knowledge:** Know which IT product would further enhance a specific product. Use knowledge to improve a made product by strengthening, stiffening or reinforcing.	N/A	Project: WW2 toys (CAMS) Topic: Mechanisms **Design:** To be able to show that society and culture is considered in plans and designs To be able to use market research to inform plans and ideas To justify plans in a convincing way. **Make:** To know which tools to use for a specific practical task. To know how to use any tool correctly and safely. To explain why a specific tool is best for a specific action. **Evaluate:** To know how to test and evaluate my products. To evaluate products against a clear criteria. **Technical Knowledge:** To use knowledge to improve a made product by strengthening, stiffening or reinforcing.	*N/A*	*Project:* *Topic: Food & Nutrition* **Design:** Produce a plan and explain it. Use ideas from other people when designing. Measure accurately. **Make:** Know which tools are used for a specific task and show knowledge of handling the tool. Measure accurately. Know how to be both hygienic and safe when using food. Bring a creative element to the food product being designed. **Evaluate:** Explain how the original design has been improved. Evaluate and suggest improvement for design. Evaluate products for both purpose and design. **Technical Knowledge:** Present a product in an interesting way.