

What you study in Design and Technology at SVC



	YR 7	YR 8	YR 9	YR 10	YR 11
Product Design <i>Mr Mason</i> <i>Mr Roberts</i> <i>Mr Pearce</i>	Photo frame project By the end of the project you will be able to: <ul style="list-style-type: none"> Explain what finishes are applied to timber and why / Explain what CAD/CAM is Name the different materials and tools used to make your photo frame You will be assessed on: <ul style="list-style-type: none"> Your practical outcome 	Clock project By the end of the project you will be able to: <ul style="list-style-type: none"> Explain the properties of Aluminium and the different techniques that can be used Name the tools used for metal work Use a CAD application well enough to design your clock You will be assessed on: <ul style="list-style-type: none"> Your practical outcome Sketch Up (CAD) Ability 	Money Box project By the end of the project you will be able to: <ul style="list-style-type: none"> Explain the properties of Acrylic and how the strip heater can be used with polymers Explain how the laser cutter works well enough to produce a product (CAM) Explain why we model and test You will be assessed on: <ul style="list-style-type: none"> Your practical outcome Your understanding of Tools and processes (Knowledge Check) 	Product Design GCSE By the end of YR 10 you will be able to: <ul style="list-style-type: none"> Explain the properties of plastics, smart materials and textiles Explain the in-depth properties of timbers Explain the benefits and drawbacks of CAD/CAM Explain all factors linking to sustainability Explain the different scales of manufacture Sketch and communicate ideas better Analyse a company or designer in depth Undertake effective research for your coursework You will be assessed on: <ul style="list-style-type: none"> Your understanding of the content (A series of knowledge checks) Mock exam Independent Company / Designer research (Series of home works) 	Product Design GCSE By the end of the YR 11 you will be able to: <ul style="list-style-type: none"> Explain the properties of metals and papers and board Explain what a system is and use the equation needed Explain the different mechanical devices and use the equations needed Explain what ergonomics is and how to use anthropometric data Write a comprehensive specification for your project Consider a range of design strategies to communicate your design development Manufacture a fully functioning, high quality product Undertake critical testing and evaluation of your product You will be assessed on: <ul style="list-style-type: none"> Final Exam (50% of the course) Coursework (50% of the course)
Young Explorers / Systems <i>Miss Knight</i>	Identifying & Investigating project By the end of the project you will be able to: <ul style="list-style-type: none"> Explain the importance of a design brief and specification Explain why it is important to study the work of professionals Explain what problem solving is You will be assessed on: <ul style="list-style-type: none"> Your practical outcomes Understanding of problem solving 	Designing Our Tomorrow project By the end of the project you will be able to: <ul style="list-style-type: none"> Explain what a context is Explain why user wants/needs are so important when designing Explain why feedback is so important when prototyping You will be assessed on: <ul style="list-style-type: none"> Your Prototype / Improvements and Evaluation 	Electronic Systems project By the end of the project you will be able to: <ul style="list-style-type: none"> Explain what the four different types of components are and their jobs (Inputs Outputs) Explain the differences between microcontrollers and microprocessors Design a range of circuits You will be assessed on: <ul style="list-style-type: none"> Knowledge of systems / Components and circuits 	<ul style="list-style-type: none"> A focussed practical task (Storage Robot) Ability to write detailed specifications, Communicate design ideas, and evaluate a product (Lamp Project) The manufacture of a high quality product (Lamp) 	
Textiles <i>Miss Simon</i>	Pencil Case project By the end of the project you will be able to: <ul style="list-style-type: none"> Name the basic textile equipment and processes Explain the differences between natural and synthetic polymers You will be assessed on: <ul style="list-style-type: none"> Your practical outcome 	Misfit project By the end of the project you will be able to: <ul style="list-style-type: none"> Explain the important of sustainability Explain what a life cycle analysis is Name different fabrics and components You will be assessed on: <ul style="list-style-type: none"> Your practical outcome 	Food Sculpture project By the end of the project you will be able to: <ul style="list-style-type: none"> Explain the properties of a range of smart materials Explain the properties of a range of modern materials Explain how to produce a manufacturing specification You will be assessed on: <ul style="list-style-type: none"> Your practical outcome 		

- Links to Exam (Component 1)
- Links to NEA (Component 2)