

Winstanley Two Year Overview for GCSE AQA Product Design

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
YEAR 10	<u>Intarsia project.</u> Designing objects with closed boundaries. Drawing to scale. Transferring designs. Developing coping saw technique. Developing painting and shaping skills. Creating mitre joints. Researching man made boards.	<u>Flashing light project.</u> Designing to scale. Orthographic projection. Flashing light circuit. What do resistors and transistors do? Soldering. Vacuum forming. Knowledge of thermoplastics.	<u>Bird box project.</u> Designing for others. Researching needs of indigenous birds. Analysing similar products. Joinery techniques. Developing skills in joinery.	Developing skills in CAD/CAM to make components. Use of paints and finishes in products. Environmental considerations. Life cycle of products and disposal. Environmental impact of creating and using materials.	<u>Toy car project</u> Understanding of gear and pulley drives. 3D design-orthographic views. Chassis design and component assembly. Using CAD/CAM to create precise geometric components.	Revision and preparation for mock exam.
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
YEAR 11	<u>Major Project</u> Brainstorm design Primary research. Analysing and displaying results. Product analysis. Ergonomics of design. Researching environmental factors that affect design.	Designing a test for product research. Use of photos and annotation as evidence. Gathering secondary research and results. 3D Designs ideas and annotation.	Develop 3D concepts with annotation. Use of CAD to scale and present ideas. Planning production of design using flow diagrams and Gant charts showing timings.	Making final product. Using photos to record and explain progress. Testing of product. Evaluation of product.	REVISION & EXAMS	EXAMS