Technology at Lord Lawson of Beamish Academy

What are the aims of the technology department?

We believe that Technology equips students with skills that are needed throughout life. Through the teaching of theory and practical skills in food, textiles and design, Technology prepares students for life beyond education. Our mission is to ensure that all students leave this school with the necessary practical skills needed to live independently.
Our aim is to inspire students to become engineers, architects, chefs, fashion designers or health care workers and our curriculum pathways are designed to enable students to progress and thrive in a practical subject with confidence, equipping them with the knowledge and skills to succeed beyond school and in the workplace.

What will my child study in years 10 and 11?

The Vocational Award in Construction and the Built Environment (Technical Award) has been designed to support learners in schools who want to learn about this vocational sector and the potential it can offer them for their careers or further study. It consists of two units, unit 1, introduction to the built environment, an external exam worth 40%. The coursework unit, worth 60%, is a practical based unit covering a range of construction skills such as plumbing, electrical and plastering. This will include written and evaluative work.

Year 10
Year 11

Year 10 Constructing the built environment

	Unit 1 September – February yr 11	Unit 3
Topic/Theme/ **Genre**	**Introduction to the built environment (exam)** Unit 1 introduces learners to the built environment and provides them with the opportunity to develop skills, knowledge and understanding in identifying, explaining and evaluating different ideas and concepts of the built environment. Learners will explore a range of profession and trade roles, and some of the different structures and buildings of the built environment. This unit will run throughout year ten and into year 11. Practical skills building and exam content are split over the course with more theory taught towards end of year ten into year 11. Students will study the following areas of content over the two years. This unit is externally assessed through a written examination and will be sat in June of year 11. **The sector** This is related to the construction sector and the roles with it, including managerial roles and services.	**Constructing the built environment (COURSEWORK)** Students will begin to practice some basic skills which they will use to prepare them for their assessed coursework project. Year ten is primarily a skill building year and they will practice these alongside the introduction of the exam content which is delivered through theory lessons. **Skills include,** Construction using wood materials or reclaimed materials Joinery Measuring out

	The built environment life cycle Learners will gain knowledge and understanding of the built environment life cycle, including, operation, maintenance and demolition. **Types of building and structure** Learners will gain knowledge and understanding of the features and characteristics of different forms of infrastructure construction including residential and commercial buildings. **Technologies and materials** Learners will gain knowledge and understanding of tools, technologies and materials used in the construction and built environment sector. **Building structures and forms**	Assembling Introduction to electrical Introduction to plumbing

	In this section learners will gain knowledge and understanding of the following building structures and forms including celluar constructions and traditional methods. **Sustainable construction methods** Learners will gain knowledge and understanding of issues related to sustainable construction methods **Trades, employment and careers** In this section, learners will gain knowledge and understanding of trades including electrical engineering, plumbing and painting. **Health and safety** Students will learn about areas related to health and safety within construction, including,	

	Hazards, (COSHH) regulations, using personal protective equipment (PPE) and safely working with gas, water and electricity	
Key vocabulary	Construction Sustainability Hazard Structure Trade Infrastructures	Tri square Joinery Reclaimed Cutting list Assembling Marking out Measuring

	Manufacturing Demolition Regulation Residential Commercial	

Year 11 Constructing the built environment

	Unit 1	Unit 3 June of year 10 to May year 11
Topic/Theme/ Genre	**Introduction to the built environment (continuation of exam content)**	**Constructing the built environment (COURSEWORK)**

	This is a continuation of the content above. Students will increase their theory work and cover all of the content by February to work alongside their practical coursework unit. Students will then revise content alongside the completion of unit 3.	The realisation of construction projects requires the services of many construction specialists. A significant number of these specialists will be engaged in what are often referred to as 'trades' This units requires learners to complete a construction project which focusses on the preparation and completion of three realistic trade-based tasks which include, plaster, electrical, brick, plumbing or tiling. This unit is teacher assessed and worth 60 %. It is externally moderated. **Students will** Interpret technical sources of information Plan and organise work Identify resource requirements Calculate the materials required Write and set success criteria

		Prepare for construction tasks Carrying out techniques Removing and disposing of materials Working practices that promote health and safety Evaluating construction tasks.
Key vocabulary	INFRASTRUCTURE COMPONENTS BUILT ENVIRONMENT	Evaluate Calculate Resource

	BUILDING TRADES CONSTRUCTION INDUSTRY FUNCTION CIOB RICS RIBA BSI	Plaster Electrical Plumbing Accuracy Fittings Soldering Compression Area