



Curriculum Progression (Intent)

Long Term Intent Technologies: Construction and the Built Environment

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 is most suitable as a foundation for further study. This further study would provide learners with the opportunity to develop a range of specialist and general skills that would support their progression to employment.

	Knowledge and Understanding	Skills
Year 11	<p>1.1 The sector: In this topic, learners will gain knowledge and understanding of the following areas in construction and the built environment sector:</p> <ul style="list-style-type: none"> • buildings and structures • infrastructure and civil engineering products • building services engineering • professional and managerial roles and responsibilities associated with the built environment sector. <p>1.4 Technologies and materials: In this section learners will gain knowledge and understanding of tools, technologies and materials used in the construction and built environment sector:</p> <ul style="list-style-type: none"> • main elements and components of low-rise buildings • main materials involved in constructing walls, installing building services, fitting roofs and finishing interiors • renewable technologies and materials, including heat pumps, wind turbines and solar panels <p>1.5 Building structures and forms: In this section learners will gain knowledge and understanding of the following building structures and forms:</p> <ul style="list-style-type: none"> • cellular constructions • rectangular frame constructions • portal frame constructions • heritage and traditional methods <p>1.6 Sustainable construction methods: in this section learners will gain knowledge and understanding of issues related to sustainable construction methods:</p> <ul style="list-style-type: none"> • the environmental, financial, cultural and social benefits of sustainable construction methods • pollution and the preservation of the natural environment and natural habitats • sustainable materials used to create building frames, walls, roofs • waste disposal, re-use and recycling • planning permission, brownfield sites and greenfield sites. <p>3.1 Interpreting technical sources of information: In this section learners will gain knowledge, understanding and skills in interpreting a range of technical sources of information, using the symbols, conventions and terminology of:</p> <ul style="list-style-type: none"> • specifications • building regulations • drawings • design briefs. 	<p>Painting and decorating: Preparing surfaces for painting</p> <p>Following a project brief and specification to paint and decorate a wall and any decorative woodwork.</p> <p>Bricklaying: Selecting and preparing bricks, including cutting bricks to size</p> <p>Following a project brief and specification to build a high quality brick structure</p> <p>Carpentry and Joinery: Measuring and marking out timber to given specifications</p> <p>Using hand tools and power tools to construct a timber stud wall, frame or partition.</p>

	<p>3.3 Identifying resources: In this section learners will gain knowledge, understanding and skills in identifying resource requirements, for the three selected trade areas, to meet design requirements: tools equipment personal protective equipment (PPE) materials based on characteristics, qualities, sustainability, and limitations.</p> <p>3.4 Calculating the materials required: in this section learners will gain knowledge, understanding and skills in calculating the materials required to complete construction tasks that meet design requirements, in relation to:</p> <ul style="list-style-type: none"> • volume • area • perimeter • time • ratio. <p>3.5 Writing and setting success criteria: In this section learners will gain knowledge, understanding and skills in writing and setting appropriate project success criteria to meet the requirements of set briefs, with respect to:</p> <ul style="list-style-type: none"> • levels of tolerance • timescales • quality. 	
Year 10	<p>1.2 The Built Environment life cycle: In this section learners will gain knowledge and understanding of the built environment life cycle, specifically:</p> <ul style="list-style-type: none"> • raw material extraction • manufacturing • construction • operation and maintenance • demolition • disposal, reuse or recycling. <p>1.3 Types of building and structure: In this section learners will gain knowledge and understanding of the features and characteristics of:</p> <ul style="list-style-type: none"> • different forms of infrastructure construction • low-rise: <ul style="list-style-type: none"> • residential dwellings • commercial buildings • industrial buildings • agricultural buildings • community buildings • religious buildings • recreational buildings <p>1.7 Trades, employment and careers: in this section, learners will gain knowledge and understanding of the following:</p> <ul style="list-style-type: none"> • bricklaying • stonemasonry • plastering • carpentry and joinery • electrical installation • plumbing installation 	<p>Learners will work across three practical areas: Bricklaying, Joinery and Painting and Decorating. Common preparatory work will include:</p> <p><i>selecting materials</i> <i>checking quantity</i> <i>checking for defects</i> <i>organising materials</i> <i>measuring marking out</i> <i>cutting</i> <i>setting out.</i></p> <p>Painting and decorating: Cutting in Masking Working at height Using brushes and rollers to apply emulsion paint.</p> <p>Bricklaying: Selecting and preparing bricks, including cutting bricks to size.</p>

	<ul style="list-style-type: none"> • painting and decorating • flooring and tiling. <p>1.8 Health and safety: in this section learners will gain knowledge and understanding of health and safety in relation to:</p> <ul style="list-style-type: none"> • risks for employees, employers and the public during construction and the built environment projects • following procedures and carrying out risk assessments • relevant legislation, including Health and Safety at Work Act and Control of Substances Hazardous to Health (COSHH) regulations • using personal protective equipment (PPE) • safely working with gas, water and electricity • working at height and in enclosed spaces. 	<p>Mixing and working with mortar.</p> <p>Using tools and equipment to ensure walls are level.</p> <p>Using finishing tools to neaten pointing.</p> <p>Carpentry and Joinery:</p> <p>Using hand tools to cut wood to size and cut wood joints.</p> <p>Using power tools.</p> <p>Using workshop tools to enhance finish and accuracy.</p>
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