

CLAYTON HALL ACADEMY

Faculty and Department Curriculum and Assessment Handbook

Name of Faculty/Department: 21st Century Technologies/ **Construction**

Our Curriculum Intent

Studies in Constructing the Built Environment offers a learning experience through applied learning by acquiring and applying knowledge, skills and understanding through purposeful tasks that have many of the characteristics of real work. This includes Brickwork, Joinery, plumbing, electrics, painting and decorating.

The qualification has been devised around the concept of a 'plan, do, review' approach to learning where learners are introduced to a context for learning, review previous learning to plan activities, carry out activities and review outcomes and learning. This approach mirrors many work related activities in constructing the built environment and also provides for learning in a range of contexts thus enabling learners to apply and extend their learning. As such, the qualification provides learners with a broad appreciation of work in construction and wider opportunities for progression into further education, employment or training.

Gold Standard Teaching and Learning in Construction

- High expectation of pupil behaviour at all times
- Well planned and resourced series of lessons
- An expectation that pupils will accept responsibility for their own learning and work independently
- Use of assessment criteria to be integral in developing students' autonomy and understanding of their own progression and target setting
- Subject specific language to be used by the teacher and students, across both Key Stages, so that the students' become completely familiar with technical vocabulary in lessons
- High demands of pupil involvement and engagement with their learning
- A range of practical, oral and written skills
- Use of a range of learning strategies to support students of all levels
- Stretch and challenge through questioning, modelling and via the variety of tasks set
- Assessment for learning
- Effective use of summative data to inform short, medium- and long-term planning
- DIRT
- Regular use of encouragement and rewards to engage and motivate pupils

Long Term Curriculum and Assessment Plan – Key Stage 4

Year 10

When?	What we are Learning and Assessing e.g. Topics/ Skills etc	How we are Assessing e.g. Extended writing, Project, exam etc	Links Backwards and Forward When was it last covered & when next?
Autumn 1 Practical	<p>Joinery Principals and Techniques. Creating a portfolio of wood joining samples from a simple butt joint to the finest dovetail. Each practical process is documented outlining the tools, equipment, machines, and processes used.</p> <p>Introduction to Brickwork. A series of focused practical tasks where students learn to set out to develop a core Brickwork skill base such as preparing a mortar mix, laying a bed, setting out a corner known as a quoin and producing a stretcher bond working to a brick line.</p>	<p>A portfolio of practical joinery work that is photographed and annotated to establish which tools, equipment and processes have been used.</p> <p>A portfolio of practical Brickwork that is photographed and annotated to establish which tools, equipment and processes have been used</p>	<p>Building on KS3 product design practical (introduction and use of tools, equipment and processes) Preparing for post 16 Construction course at Newcastle college review and possible visit. Exterior specialist tradesperson visit</p> <p>Building on KS3 product design practical (introduction and use of tools, equipment and processes) Preparing for post 16 Construction course at Newcastle college review and possible visit. Exterior specialist tradesperson visit</p>
Autumn 1 Theory	<p>Unit 1.8 Health and safety, 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. 	Written folder for assessment. End of unit test.	<p>Building on KS3 knowledge and understanding. Preparing for Unit 1 exam. To be revised after Internal Controlled assessment.</p>
Autumn 2 Practical	Joinery Toolbox. Here, students will demonstrate their newly acquired skills by creating their very own timber construction toolbox using recycled pallet wood.	A practical project assessment that utilises skills and knowledge acquired so far to independently construct their own Toolbox	Building on KS3 practical making skills. Preparing for independent use of Joinery tools equipment and processes required for Unit 3 assessment

Autumn 2 Theory	<p>Unit1.1 The building sector, 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. 	Written folder for assessment. End of unit test.	<p>Building on KS3 knowledge and understanding. Preparing for Unit 1 exam. To be revised after Internal Controlled assessment.</p>
Spring 1 Practical	Further Brickwork Techniques taught through a series of focused practical tasks. Here, students will develop their skills by completing more complex brickwork structures such as chimneys, arches and learning pointing techniques.	A further portfolio of practical Brickwork that is photographed and annotated to establish which tools, equipment and processes have been used.	<p>Building on Brickwork introduction skills. Preparing for independent use of brickwork tools equipment and processes required for Unit 2 assessment</p>
Spring 1 Theory	<p>Unit 1.2 The Built Environment life cycle, 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. 	Written folder for assessment. End of unit test.	<p>Building on KS3 knowledge and understanding. Preparing for Unit 1 exam. To be revised after Internal Controlled assessment.</p>
Spring 2 Practical	Community Support Project. Students promote their skills by developing practical project that give back to the community such as garden planters or the restoration of outdoor seating.	Practical response to a given community support project. Planning, method and evaluation submission and assessed through Teams	<p>Building on practical problem-solving skills acquired thus far. Preparing for Unit 2 assessment of practical ability, planning, method and evaluation of success</p>
Spring 2 Theory	<p>Unit 1.3 1.3 Types of building and structure, 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: • residential dwellings • commercial buildings 	Written folder for assessment. End of unit test.	<p>Building on KS3 knowledge and understanding. Preparing for Unit 1 exam. To be revised after Internal Controlled assessment.</p>

	<ul style="list-style-type: none"> • industrial buildings • agricultural buildings • community buildings • religious buildings • recreational buildings. 		
Summer 1 Practical	Unit 3 Joinery – Stud Walls. Students are tasked with the independent creation of a stud wall frame to a specification using donated materials.	Practice Unit 3 practical Joinery skills assessment. Planning, method and evaluation submission and assessed through Teams	Building on introduction to Joinery and development of workshop skills. Preparing for Unit 3 assessment and Post 16 course at NC
Summer 1 Theory	Unit 1.4 Technologies and materials, learners will gain knowledge and understanding of tools, technologies and materials used in the construction and built environment sector: <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. 	Written folder for assessment. End of unit test.	Building on KS3 knowledge and understanding. Preparing for Unit 1 exam. To be revised after Internal Controlled assessment.
Summer 2 Practical	Continue Unit 3 Joinery – Stud Walls. Students are tasked with the independent creation of a stud wall frame to a specification using donated materials.	Assessment Unit 3 practical Joinery skills assessment. Planning, method and evaluation submission and assessed through Teams	Building on introduction to Joinery and development of workshop skills. Preparing for Unit 3 assessment and Post 16 course at NC
Summer 2 Theory	Unit 1.5 Building structures and forms, learners will gain knowledge and understanding of the following building structures and forms: <ul style="list-style-type: none"> • cellular constructions • rectangular frame constructions • portal frame constructions • heritage and traditional methods. 	Written folder for assessment. End of unit test.	Building on KS3 knowledge and understanding. Preparing for Unit 1 exam. To be revised after Internal Controlled assessment.

Year 11

When?	What we are Learning and Assessing e.g. Topics/ Skills etc	How we are Assessing e.g. Extended writing, Project, exam etc	Links Backwards and Forward When was it last covered & when next?
Autumn 1 Practical	Unit 3 Plastering - Students cut and prepare plasterboard to fix skim their own stud walls.	Practice Unit 3 practical plastering skills assessment. Planning, method and evaluation submission and assessed through Teams	Building on the development of workshop skills. Preparing for Unit 3 assessment and Post 16 course at NC
	Unit 3 Painting and Decorating - Stud walls are fully decorated with skirting, dado rail, primer, gloss paint and papered.	Unit 3 practical painting and decorating skills assessment. Planning, method and evaluation submission and assessed through Teams	Building on the development of workshop skills. Preparing for Unit 3 assessment and Post 16 course at NC
Autumn 1 Theory	Unit 3 Write up Planning and Evaluation. Students are required to write about their practical experience and evaluate their outcomes.	All Unit 3 Planning, method and evaluations submission and assessed through Teams prepared for sampling external moderation	Consolidation and evaluation of all practical skills acquired. Preparing for Unit 2 assessment sample and Post 16 course at NC
Autumn 2 Practical	Continue Unit 3 Plastering - Students cut and prepare plasterboard to fix skim their own stud walls.	Assessment Unit 3 practical plastering skills assessment. Planning, method and evaluation submission and assessed through Teams	Building on the development of workshop skills. Preparing for Unit 3 assessment and Post 16 course at NC
	Unit 3 Painting and Decorating - Stud walls are fully decorated with skirting, dado rail, primer, gloss paint and papered.	Unit 3 practical painting and decorating skills assessment. Planning, method and evaluation submission and assessed through Teams	Building on the development of workshop skills. Preparing for Unit 3 assessment and Post 16 course at NC
Autumn 2 Theory	Unit 3 Write up Planning and Evaluation. Students are required to write about their practical experience and evaluate their outcomes.	All Unit 3 Planning, method and evaluations submission and assessed through Teams prepared for sampling external moderation	Consolidation and evaluation of all practical skills acquired. Preparing for Unit 2 assessment sample and Post 16 course at NC
Spring 1 Practical	Unit 3 Brickwork development of skills and final assessment. Students will undertake a 2-hour controlled assessment of their skills working within a tolerance to a given set of dimensions.	Practice Unit 3 practical brickwork skills assessment. Planning, method and evaluation submission and assessed through Teams	Building on the development of brickwork skills. Preparing for final Unit 3 assessment and Post 16 course at NC
Spring 1 Theory	Unit 3 Write up Planning and Evaluation. Students are required to write about their practical experience and evaluate their outcomes.	All Unit 3 Planning, method and evaluations submission and assessed through Teams prepared for sampling external moderation	Consolidation and evaluation of all practical skills acquired. Preparing for Unit 2 assessment sample and Post 16 course at NC
Spring 2 Practical	Continue Unit 3 Brickwork development of skills and final assessment. Students will undertake a 2-hour controlled assessment of their skills	Assessment Unit 3 practical brickwork skills assessment. Planning, method and evaluation submission and assessed through Teams	Building on the development of brickwork skills. Preparing for final Unit 3 assessment and Post 16 course at NC

	working within a tolerance to a given set of dimensions.		
Spring 2 Theory	<p>Unit 1.6 Sustainable construction methods 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. 	Written folder for assessment. End of unit test.	<p>Building on KS3 knowledge and understanding. Preparing for Unit 1 exam. To be revised after Internal Controlled assessment.</p>
Summer 1 Practical	Construction trade choice from Plumbing, electrics, tiling, roofing, heritage.	Non assessed	<p>Building on the development of practical skills. Preparing for college or apprenticeship choice Post 16</p>
Summer 1 Theory	<p>Unit 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 • painting and decorating • flooring and tiling. 	Written folder for assessment. End of unit test.	<p>Building on KS3 knowledge and understanding. Preparing for Unit 1 exam. To be revised after Internal Controlled assessment.</p>

Year 11

When?	What we are Learning and Assessing e.g. Topics/ Skills etc	How we are Assessing e.g. Extended writing, Project, exam etc	Links Backwards and Forward When was it last covered & when next?
Autumn 1	Unit 2 Brickwork further skills and Assessment review and refinement.	A further portfolio of practical Brickwork that is photographed and annotated to establish which tools, equipment and processes have been used.	Building on Brickwork introduction skills. Preparing for independent use of brickwork tools equipment and processes required for Unit 2 assessment
Autumn 2	Unit 2 Write up Planning and Evaluation. Students are required to write about their practical experience and evaluate their outcomes.	All Unit 2 Planning, method and evaluations submission and assessed through Teams prepared for sampling	Consolidation and evaluation of all practical skills acquired. Preparing for Unit 2 assessment sample and Post 16 course at NC
Spring 1	Unit 3 Planning Construction Activities. To know a range of Construction planning techniques and processes – Area and Volume	Unit 3 final summer exam	Development of mathematic skills applied through a construction context. Area and Volume
Spring 2	Unit 3 Planning Construction Activities. To know a range of Construction planning techniques and processes – Costings and Percentages	Unit 3 final summer exam	Development of mathematic skills applied through a construction context. Costings and percentages
Summer 1	Unit 3 Planning Construction Activities and Unit 3 Exam 2 Hours	Unit 3 final summer exam	Job roles and responsibilities

Key Stage 4 Examination Overview

Exam Board Details: WJEC Constructing the Built Environment

Unit 1 1.5 Hour paper/Electronic 40% of qualification externally marked exam graded Level 1 Pass, Level 1 Merit, Level 1 Distinction, Level 1 Distinction*, Level 2 Pass, Level 2 Merit, Level 2 Distinction, Level 2 Distinction*

Unit 3 Constructing the Built Environment Internal Controlled assessment: 30 hours 60% of qualification

What resources could I buy or borrow that will help my child?

HSE.gov

Functional maths

What are the key websites or Apps that my child could use?

HSE.gov

WJEC Construction YOUTUBE channel

What can I do to encourage my child to take a further interest in Construction?

Watch TV programmes such as: Grand designs and DIY SOS

Help with projects at home