

## Construction curriculum map: Year 10 - 'Development year'

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Knowledge	<p><b>Plumbing:</b> Measuring, Marking and cutting PVC and copper pipe safely. The students will be working with both of these materials to construct a series of different plumbing rigs as detailed in the scaled drawings for Unit 9.</p> <p><b>Introduction to Construction Technology:</b> Students will gain an understanding of the basic elements of construction. They will learn about the structural performance required for low rise construction and explore how substructures and superstructures are constructed.</p>	<p><b>Plumbing:</b> Measuring, Marking and cutting PVC and copper pipe safely. The students will be working with both of these materials to construct a series of different plumbing rigs as detailed in the scaled drawings for Unit 9.</p> <p><b>Introduction to Construction Technology:</b> Students will gain an understanding of the basic elements of construction. They will learn about the structural performance required for low rise construction and explore how substructures and superstructures are constructed.</p>	<p><b>Electrical:</b> Measuring, Marking, cutting and stripping electrical cables safely. The students will be gaining knowledge of how electrical components work and carrying out practical tasks as detailed in the scaled drawings for Unit 10</p> <p><b>Introduction to Construction Drawing Techniques:</b> The students will gain an understanding of drawing techniques used in the construction industry as well as recognising the British Standards involved and learning to read scaled drawings.</p>	<p><b>Electrical:</b> Measuring, Marking, cutting and stripping electrical cables safely. The students will be gaining knowledge of how electrical components work and carrying out practical tasks as detailed in the scaled drawings for Unit 10.</p> <p><b>Introduction to Construction Drawing Techniques:</b> The students will gain an understanding of drawing techniques used in the construction industry as well as recognising the British Standards involved and learning to read scaled drawings.</p>	<p><b>Carpentry:</b> Measuring, Marking and cutting wood safely. The students will be working with Timber to construct a series of different wood joints which will form a frame as detailed in Unit 6.</p> <p><b>Introduction to Construction &amp; Design:</b> The students will gain an understanding of the different types of construction activities and how they contribute to the UK built environment and economy. They will also look at the different types of structures and designs of buildings influenced by clients' needs.</p>	<p><b>Carpentry:</b> Measuring, Marking and cutting wood safely. The students will be working with Timber to construct a series of tasks that includes, door locks, handles and hinges.</p> <p><b>Introduction to Construction &amp; Design:</b> The students will gain an understanding of the different types of construction activities and how they contribute to the UK built environment and economy. They will also look at the different types of structures and designs of buildings influenced by clients' needs.</p>
Skills	<p><b>AO1:</b> Develop practical skills using safe techniques to produce assessment pieces.</p> <p><b>AO2:</b> Demonstrate knowledge and understanding of the requirements needed for low rise construction projects to be built safely and within health and safety guidelines.</p>	<p><b>AO1:</b> Develop practical skills using safe techniques to produce assessment pieces.</p> <p><b>AO2:</b> Demonstrate knowledge and understanding of the requirements needed for low rise construction projects to be built safely and within health and safety guidelines.</p>	<p><b>AO1:</b> Develop practical skills using safe techniques to produce assessment pieces.</p> <p><b>AO2:</b> Demonstrate knowledge and understanding of the requirements needed to produce construction drawings.</p>	<p><b>AO1:</b> Develop practical skills using safe techniques to produce assessment pieces.</p> <p><b>AO2:</b> Demonstrate knowledge and understanding of the requirements needed to produce construction drawings.</p>	<p><b>AO1:</b> Develop practical skills using safe techniques to produce assessment pieces.</p> <p><b>AO2:</b> Demonstrate knowledge and understanding of the work of the construction industry including designs of low rise buildings to meet client needs.</p>	<p><b>AO1:</b> Develop practical skills using safe techniques to produce assessment pieces.</p> <p><b>AO2:</b> Demonstrate knowledge and understanding of the work of the construction industry including designs of low rise buildings to meet client needs.</p>
Key Questions	<p>What are the performance requirements for low rise construction projects? How do buildings achieve their required strength and stability?</p>	<p>What are the performance requirements for low rise construction projects? How do buildings achieve their required strength and stability?</p>	<p>What is an isometric drawing? What is an orthographic drawing? What is a CAD drawing? Can I measure and mark</p>	<p>What is an isometric drawing? What is an orthographic drawing? What is a CAD drawing? Can I measure and mark</p>	<p>How does the construction industry contribute to society? What type of work does the construction industry undertake?</p>	<p>How does the construction industry contribute to society? What type of work does the construction industry undertake?</p>

	Can I measure and mark accurately? Can I cut pipes and use other hand tools accurately? Can I use Tools & Equipment safely?	Can I measure and mark accurately? Can I cut pipes and use other hand tools accurately? Can I use Tools & Equipment safely?	accurately? Can I cut and strip cables and use other hand tools accurately? Can I use Tools & Equipment safely?	accurately? Can I cut and strip cables and use other hand tools accurately? Can I use Tools & Equipment safely?	Why is it important to design buildings that are environmentally friendly? Can I measure and mark accurately? Can I saw and use other hand tools accurately? Can I use Tools & Equipment safely?	Why is it important to design buildings that are environmentally friendly? Can I measure and mark accurately? Can I saw and use other hand tools accurately? Can I use Tools & Equipment safely?
Assessment focus on core knowledge & skills.	Low stakes questioning, live task marking; knowledge based assessment. Recap starter every lesson; End of unit knowledge test. Formative assessments.	Low stakes questioning, live task marking; knowledge based assessment. Recap starter every lesson; End of unit knowledge test. Formative assessments.	Low stakes questioning, live task marking; knowledge based assessment. Recap starter every lesson; Completed construction drawings, End of unit knowledge test. Formative assessments.	Low stakes questioning, live task marking; knowledge based assessment. Recap starter every lesson; Completed construction drawings, End of unit knowledge test. Formative assessments.	Low stakes questioning, live task marking; knowledge based assessment. Recap starter every lesson; End of unit knowledge test. Formative assessments.	Low stakes questioning, live task marking; knowledge based assessment. Recap starter every lesson; End of unit knowledge test. Formative assessments.
Literacy/numeracy/SMSC/Character	Structured writing • Terminology & definitions of key words • SEN support – differentiated writing frames i.e. sentence starters • Starters i.e. Smart board recall game, key concept recall • Terminology booklet (glossary) • Maths: Measuring (metres, centimetres, millimetres), Scale, Dimensions, Multiples, Costings, Areas & Volumes SMSC – Directly and indirectly embedded across lessons – social issues discussed within lessons, students able to empathise with the norms and values of others and challenge stereotypes and misnomers in society • Mutual respect is engendered through the process of peer evaluation of each other's work and standards • Equal opportunities is taught through collaborative and team learning • Sustainability and the clear understanding of how it is applied to designing new buildings and the use of recycled materials. • Summer reading to develop subject knowledge.					
Enrichment opportunities and futures	Futures in the subject embedded across lesson plans and presentations. Directly and indirectly. Career options displayed on the display board including further education options. • Core skills are developed to support the transition to the world of work including: Independent research skills; Group work and ability to work independently; Communication and Cooperation; Public speaking. Encourage students to participate in presentations of their work. <b>Specific enrichment</b> - Relevant documentaries and TV shows i.e.: (Grand Designs and Your Home Made Perfect) and wider reading throughout the course. • After school drop in sessions for assignment writing techniques. • Employability - applying for jobs/apprenticeships - CV writing, interview techniques. • Careers -Researching The careers available in the construction industry. • Colleges, research, interviews/enrolments.					

## Construction curriculum map: Year 11 - 'Consolidation year'

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Knowledge	<p><b>Electrical:</b> Measuring, Marking, cutting and stripping electrical cables safely. The students will be gaining knowledge of how electrical components work and carrying out practical tasks as detailed in the scaled drawings for Unit 20.</p> <p><b>Scientific &amp; mathematical applications for Construction:</b> Students will examine scientific properties of construction materials as well as calculating mathematical equations relating to quantity and cost.</p>	<p><b>Electrical:</b> Measuring, Marking, cutting and stripping electrical cables safely. The students will be gaining knowledge of how electrical components work and carrying out practical tasks as detailed in the scaled drawings for Unit 20.</p> <p><b>Scientific &amp; mathematical applications for Construction:</b> Students will examine scientific properties of construction materials as well as calculating mathematical equations relating to quantity and cost.</p>	<p><b>Bricklaying:</b> This unit will introduce the students to the safe selection and use of tools and equipment in order to develop the skills needed to construct basic brick and block structures as detailed in Unit 7.</p> <p><b>Sustainability in Construction:</b> Students will examine how construction activity has an impact on our physical, social and economic environments to gain an understanding of the approaches that need to be taken in order to minimise the impacts. Unit 11</p>	<p><b>Bricklaying:</b> This unit will introduce the students to the safe selection and use of tools and equipment in order to develop the skills needed to construct basic brick and block structures as detailed in Unit 7.</p> <p><b>Sustainability in Construction:</b> Students will examine how construction activity has an impact on our physical, social and economic environments to gain an understanding of the approaches that need to be taken in order to minimise the impacts. Unit 11</p>	<p><b>Catch up sessions:</b> The students will have the opportunity to catch up and finish any outstanding coursework to complete their BTEC qualification.</p>	
Skills	<p><b>AO1:</b> Develop practical skills using safe techniques to produce assessment pieces.</p> <p><b>AO2:</b> Demonstrate knowledge and understanding of the effect of forces and temperature change on construction materials and using mathematical techniques to solve construction problems.</p>	<p><b>AO1:</b> Develop practical skills using safe techniques to produce assessment pieces.</p> <p><b>AO2:</b> Demonstrate knowledge and understanding of the effect of forces and temperature change on construction materials and using mathematical techniques to solve construction problems.</p>	<p><b>AO1:</b> Develop practical skills using safe techniques to produce assessment pieces.</p> <p><b>AO2:</b> Demonstrate knowledge and understanding of the techniques and methods used to reduce the impact of construction during the life cycle of a development.</p>	<p><b>AO1:</b> Develop practical skills using safe techniques to produce assessment pieces.</p> <p><b>AO2:</b> Demonstrate knowledge and understanding of the techniques and methods used to reduce the impact of construction during the life cycle of a development.</p>		
Key Questions	<p>What forces can affect construction materials? How would changes in temperature affect construction materials? How is pythagoras' theorem used in construction? Can I measure and mark accurately?</p>	<p>What forces can affect construction materials? How would changes in temperature affect construction materials? How is pythagoras' theorem used in construction? Can I measure and mark accurately?</p>	<p>What are the key concepts of sustainability in construction? How can we minimise the harm caused through the use of land for construction purposes? Can I measure,mark and level accurately? Can I set out my work area and use other hand tools accurately?</p>	<p>What are the key concepts of sustainability in construction? How can we minimise the harm caused through the use of land for construction purposes? Can I measure,mark and level accurately? Can I set out my work area and use other hand tools accurately?</p>		

	Can I cut and strip cables and use other hand tools accurately? Can I use Tools & Equipment safely?	Can I cut and strip cables and use other hand tools accurately? Can I use Tools & Equipment safely?	Can I use Tools & Equipment safely?	Can I use Tools & Equipment safely?		
Assessment <i>focus on core knowledge &amp; skills.</i>	Low stakes questioning, live task marking; knowledge based assessment. Recap starter every lesson; End of unit knowledge test. Formative assessments.	Low stakes questioning, live task marking; knowledge based assessment. Recap starter every lesson; End of unit knowledge test. Formative assessments.	Low stakes questioning, live task marking; knowledge based assessment. Recap starter every lesson; End of unit knowledge test. Formative assessments. <b>External exam</b>	Low stakes questioning, live task marking; knowledge based assessment. Recap starter every lesson; End of unit knowledge test. Formative assessments. <b>External exam</b>		
Literacy/numeracy/SMSC/Character	Structured writing • Terminology & definitions of key words • SEN support – differentiated writing frames i.e. sentence starters • Starters i.e. Smart board recall game, key concept recall • Terminology booklet (glossary) • Maths: Measuring (metres, centimetres, millimetres), Scale, Dimensions, Multiples, Costings, Areas & Volumes SMSC – Directly and indirectly embedded across lessons – social issues discussed within lessons, students able to empathise with the norms and values of others and challenge stereotypes and misconceptions in society • Mutual respect is engendered through the process of peer evaluation of each other's work and standards • Equal opportunities is taught through collaborative and team learning • Sustainability and the clear understanding of how it is applied to designing new buildings and the use of recycled materials					
Enrichment opportunities and futures	Futures in the subject embedded across lesson plans and presentations. Directly and indirectly. Career options displayed on the display board including further education options. • Core skills are developed to support the transition to the world of work including: Independent research skills; Group work and ability to work independently; Communication and Cooperation; Public speaking. Encourage students to participate in presentations of their work.  <b>Specific enrichment</b> - Relevant documentaries and TV shows i.e.: (Grand Designs and Your Home Made Perfect) and wider reading throughout the course. • After school drop in sessions for assignment writing techniques. • Employability - applying for jobs/apprenticeships - CV writing, interview techniques. • Careers -Researching The careers available in the construction industry. • Colleges, research, interviews/enrolments.					

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