


Greenfields Academy (Secondary) - Long Term Planning – CONSTRUCTION & ENGINEERING (L1 Occupational Studies)

Academic Year Overview 2020/21 – Year 10

Term	Autumn		Spring		Summer	
	1	2	3	4	5	6
TRANSITION FROM Year 9 	U9 – Developing Bricklaying Skills (4 credits)	U13 – Carpentry & Hand Skills (3 credits)	U17 – Building a Cavity Wall (3 credits)	U12 – Floor & Wall Tiling Techniques (3 credits)	U11 – Introduction to Plastering Techniques (3 credits)	U10 – Painting Skills for Ceilings & Walls (3 credits)
Weekly Sequence	KEY: N – New Learning & Knowledge, KQ – Key Question, WSF – Whole School Focus (eg. Computing Week, Language Day)					
1	N- Know the hand tools used in basic bricklaying processes The learner can: 1.1 List and describe appropriate hand tools to be used in basic bricklaying processes	N - Know about hand tools used in carpentry The learner can: 1.1 Identify basic hand tools used in carpentry 1.2 State the use of basic hand tools used in carpentry 1.3 Indicate the condition of tools before use	N - Be able to use hand tools for constructing a cavity wall The learner can: 1.1 Select hand tools/equipment for a set task 1.2 Use relevant hand tools/equipment safely for a set task 1.3 Handle tools correctly 1.4 Clean, maintain and store tools safely	N - Know about tools, equipment and materials used in floor and wall tiling The learner can: 1.1 State the purpose of basic tiling tools 1.2 Identify types of: ☑ adhesive ☑ tiles	N - Know a range of tools and equipment used in plastering The learner can: 1.1 Identify and state the purpose of 8 hand tools/items of equipment used in plastering	N - Be able to demonstrate good practice in preparing and maintaining the work area The learner can: 1.1 Assist in the assessment of site and identification of necessary actions 1.2 Assist in the identification of items to be removed and stored 1.3 Apply dust sheets appropriately 1.4 Maintain a clean and tidy working area at all times

<p>2</p>	<p>N - Know the materials used in basic bricklaying processes The learner can: 2.1 List and describe appropriate materials to be used in basic bricklaying processes</p>	<p>N - Be able to use face and edge marks The learner can: 2.1 Demonstrate how to use face and edge marks 2.2 Indicate why face and edge marks are used in carpentry</p>	<p>N - Be able to use techniques to construct a cavity wall The learner can: 2.1 State the need for organising materials and work area prior to commencing task 2.2 Apply basic trowel skills 2.3 Produce cuts to bricks and 100 mm blocks using lump hammer and bolster chisel 2.4 Produce a mortar joint finish</p>	<p>N - Know about background surfaces The learner can: 2.1 State a characteristic of different surfaces to which tiles are commonly fixed</p>	<p>N - Know a range of materials used in plastering The learner can: 2.1 State the purpose of 4 materials used in plastering 2.2 Outline the process involved in mixing 2 types of plaster 2.3 Mix 2 types of plaster</p>	<p>N - Be able to use and maintain tools and equipment appropriately The learner can: 2.1 Identify, and use correctly, relevant tools for specified tasks 2.2 Demonstrate safe use of portable access equipment 2.3 Clean, check and store tools and equipment and report any deficiencies to supervisor</p>
<p>3</p>	<p>N - Know the personal protective equipment (PPE) used in basic bricklaying processes The learner can: 3.1 List and describe appropriate PPE to be used in basic bricklaying processes</p>	<p>N - Be able to saw to a line The learner can: 3.1 Mark timber square 3.2 Saw timber square to a line 3.3 Mark to a given angle 3.4 Saw timber square to a given angle</p>	<p>N - Know how to identify materials used for cavity walling The learner can: 3.1 Identify suitable brick and block types used for cavity walling 3.2 Identify damp-proof courses (DPCs) 3.3 Identify cavity wall ties 3.4 Select DPCs and cavity wall ties suitable for given tasks</p>	<p>N - Be able to plan and prepare a tiling task The learner can: 3.1 Check any straight edges are plumb 3.2 Use a simple gauge rod to ensure even distribution of the tiles and minimise cutting 3.3 Clean and prepare surface 3.4 Position tools, equipment and material as directed</p>	<p>N - Know the range of backgrounds that commonly receive plaster The learner can: 3.1 Name 4 backgrounds that commonly receive plaster 3.2 Identify a given background and state one of its characteristics in relation to plastering</p>	<p>N - Be able to assist the preparation of a surface for painting The learner can: 3.1 Assist in the assessment of a surface condition for painting 3.2 Identify appropriate action 3.3 Assist in preparing the surface to the required standard, using hand or power tools as appropriate</p>
<p>4</p>	<p>N - Be able to apply safe working practices to produce half-brick walling The learner can: 4.1 Select and use hand tools safely to lay bricks in stretcher bond, minimum 7 bricks in length, minimum 5 courses high, with one stopped end</p>	<p>N - Be able to plane timber The learner can: 4.1 Identify a plane for a given task 4.2 Set a plane for use 4.3 Plane timber flat</p>	<p>N - Be able to construct a cavity wall The learner can: 4.1 Follow task instructions to produce a cavity wall 4.2 Construct a cavity wall 4.3 Install DPC and cavity wall ties 4.4 Produce joining finish to standards and tolerances</p>	<p>N - Be able to set out and fix tiles The learner can: 4.1 Use a basic setting out procedure 4.2 Evenly spread tile adhesive over a given area 4.3 Position and fix tiles, ensuring that they are straight, level and in adequate contact with the adhesive</p>	<p>N - Be able to prepare a surface for plastering The learner can: 4.1 State 2 checks required before starting to plaster 4.2 Demonstrate the process for checking the suction of a wall 4.3 Demonstrate one basic method for setting out a wall 4.4 Demonstrate the process for fixing angle-beads</p>	<p>N - Be able to clean work area and equipment The learner can: 5.1 Reinststate work area, for example, remove spillages, dust sheets, materials, waste 5.2 Clean tools and equipment as required</p>

				4.4 Use tile spacers to ensure an even gap between tiles 4.5 Clean excess adhesive from tile surface		
5	N - Be able to work responsibly with others The learner can: 5.1 Maintain a clean and tidy work environment 5.2 Work responsibly in the workshop	N - Be able to use a chisel The learner can: 5.1 Mark out the timber working from the face and edge 5.2 Saw down to the required depth 5.3 Remove the timber with the chisel		N - Be able to cut tiles The learner can: 5.1 Cut tiles into internal corners, to ensure neat finish 5.2 Use tools to cut around fixed obstacles 5.3 Observe safe working practices	N - Understand floating techniques The learner can: 5.1 Outline the procedure for floating a wall using either plumb and dot or broad screed methods	
6	N - Be able to seek and respond to guidance when working as part of a team The learner can: 6.1 Follow instructions when working with others 6.2 Communicate appropriately with others			N - Be able to use grouting techniques The learner can: 6.1 Mix the grout according to instruction 6.2 Apply grout to tiles, ensuring the joints are filled, and remove any surplus 6.3 Compact the joints and clean off any surplus 6.4 Clean down the tiled area	N - Be able to apply plaster to a surface The learner can: 6.1 Pick-up plaster from a spot board and a hawk 6.2 Apply a plaster coat onto a sample section of wall 6.3 Scratch the base coat 6.4 Lay a second coat of plaster onto the wall 6.5 Smooth surface with a float	