

LEARNING EXPERIENCES – BUILDING A HOUSE

This template is designed to be generic to both exam boards

Title of module	Building a house				
Unit (s)	2 – Materials and structures, with links to Unit 6. Also elements of Unit 3, if design principles are included.	Level	2	Ref	2-05
Aim and objective	<p>Aim: This module draws on knowledge and skills developed in other modules (see references below), and will enable learners to put into practise this prior knowledge in a manner that draws many aspects together, possible in a realistic working environment.</p> <p>Objective: To create a house that is designed to be constructed using prefabricated building elements</p>				
Intended outcomes	<p>A house based on a timber framed construction (or bungalow), built as components. The scale of this can vary from full size to 1.5. Therefore providing the opportunity for development of skills and knowledge developed in Unit 5 and others (depending on the final scope of this module).</p> <p>A structure of this size will provide a ‘hands on’ opportunity to develop learners’ knowledge of a wide range of construction materials and their properties. This could also be developed into a WEX project. Consortia will need to consider the total amount of time, area and funds available when considering the size of the ‘house’.</p>				
Approximate duration	This will vary according to the scale and range of materials and whether or not internal walls, doors, windows and roof etc. are included.				
Applied learning opportunities	<p>Ask a surveyor/architect/architectural technologist to support your work. This could be in the form of the supply of technical drawings and design issues.</p> <p>Ask a site manager who has experience of building using prefabricated building techniques and components to explain to the students the different skills, knowledge and challenges faced when building in the ‘modern’ way.</p> <p>Visit a factory producing prefabricated buildings.</p> <p>Ask a local ‘builder’ (This could be a parent) to help with the construction.</p> <p>Enquire of local builders merchants if they would sponsor the materials.</p> <p>Put up safety notices and hoarding around the area to simulate a real construction site.</p> <p>Get learners to ‘clock on’</p>				

<p>Teaching tips</p>	<p>Would be a good idea to teach this as team exercise, and to bring in the design principles/planning/construction sequence.</p> <p>The areas in this learning experience that relate to sustainability and modern method of construction (pre-fabrication) link to the module on MMC and many of the website links shown there apply to this module.</p> <p>The advantage of using prefabricated components is that they can be dismantled and used again with subsequent groups of students. (Note: screws may have to be used in places where nails would normally be the preferred joining technique.)</p> <p>Ensure learners are fully briefed regarding H&S.</p>	
<p>PLT's opportunities</p> <p>By referring to the specific PLT criteria under each heading, deliverers will find many opportunities to develop the learning potential.</p>	Creative thinkers	
	Effective participants	Propose practical ways forward, breaking these down into manageable steps.
	Independent enquirers	
	Reflective learners	Review progress, acting on the outcomes
	Self managers	<p>Work towards goals, showing initiative, commitment and perseverance.</p> <p>Organise time and resources, prioritising actions.</p>
	Team workers	Could be all
<p>Resources and environment required</p>	<p>As a scaled down version, it can be done in a workshop. For a full sized version an open/secure area would be required.</p> <p>Google prefabricated buildings.</p>	
<p>Further learning opportunities</p>	<p>In unit 4 students are required to learn about technical drawing information. Some of this could be incorporated into this module.</p>	
<p>Assessment method, including peer and self assessment</p> <p>For further information regarding the exact spec criteria that can be met, please refer to separate spreadsheet schedule</p>	<p>This module may well form part of the second year of the course. Therefore it may be used as a lead into the final assessment, which in Unit 2 is largely report writing etc. Therefore practitioners will need to ensure that all required knowledge is delivered through this module and not just focus on the practical aspects.</p> <p>At present the author is trying to gain information from both exam boards as to whether or not they will accept students' work that spans more than one unit for final assessment purposes, providing all the required assessment criteria is clearly identified. Once clarification has been achieved this section will be revised accordingly.</p>	
<p>Differentiation opportunities</p>	<p>At this stage of the Diploma practitioners will know the strengths and weaknesses of their group. This will determine who does what and with whom. It will also determine the level of complexity that can be achieved within the amount of time and other resources available.</p>	

Functional Skills connections	Maths	Understanding the dimensions as shown on the drawings and applying them on the site through the use of tape measures.. Ensuring that corners are square by the use of triangulation. Ensuring that the building is level by the use of dumpy level and measuring staff.
	English	Communication skills via specification and drawings of the construction and verbal via stream work discussions
	ICT	Reading CAD
Homework opportunities	This could take the form of staying late to do 'overtime' to get the job finished as per a potential real life experience.	