

# Built by BTEC

In partnership with  
George Clarke and MOBIE



## The UK's construction industry is changing. BTEC has the solution.

It is estimated that the UK will need 300,000 homes a year by the mid-2020s, but the way those houses are built is rapidly changing. Skills such as renewable energy, sustainable resources and innovative, future-proof designs for the housing industry, will be key for the next generation of the construction workforce.

To help you teach those skills, we've partnered with George Clarke and MOBIE to create four optional units for the BTEC Nationals in Construction, providing learners with the expertise they need to enter highly rewarding, modern careers available in the construction industry.



[www.mobie.org.uk](http://www.mobie.org.uk)

**MOBIE**  
Ministry of Building  
Innovation and Education

Founded by George Clarke, Architect and former BTEC Level 3 Learner, MOBIE is an education and training charity which inspires new generations into the building profession to fundamentally transform the way we think [www.mobie.org.uk](http://www.mobie.org.uk) about, design and construct homes.

### Resources to help you deliver!

- Mapping to Offsite ready materials
- Authorised Assignment Briefs (coming soon)

## The New Units

### Housing Design Project:

Learners develop skills in responding to a client brief with a housing design proposal and solution.

### Offsite and Onsite Alternative Construction Methods:

In order to meet wider changes in the construction industry, learners develop skills in selecting alternative construction methods.

### Renewable Energy for Housing:

Learners develop plans for improving the sustainability of homes through renewable energy use, developing a plan to install a renewable system into a domestic property.

### The Housing Industry:

Learners will better understand the industry – assessing the drivers that influence the housing market in terms of development, delivery and procurement.

Find out more



## Housing Design Project

Housing design is often driven by market forces, which have a huge impact on innovation and the use of creative design solutions. Ideally, housing design should consider aesthetics, location, user, lifestyle and quality of life. Advances in technology and design systems, and demand for innovative housing mean that there are now more opportunities than ever to come up with inventive housing design solutions.

That's why we've added this new unit, to give learners the skills they need to produce housing design proposals and understanding of future needs:

In this unit, learners will:

- Produce and present a housing design
- Respond to client briefs and stakeholder constraints
- Demonstrate their understanding of industry standard systems
- Assess design criteria to inform concepts and designs
- Produce a design proposal

### Teach with

Taking this new optional unit alongside the following units will enable your learners to get a good understanding of modern home building and design.

**Unit 18:** Building Information Modelling

**Unit 40:** Offsite and Onsite Alternative Construction Methods,

**Unit 41:** Renewable Energy for Housing

**Unit 42:** The Housing Industry

## Offsite and Onsite Alternative Construction Methods

New and alternative technologies, processes and materials are enabling new forms of construction that are more efficient, safer and more sustainable. There is pressure to modernise aspects of the industry, from working practices to inefficient business models and supply chains, which these new methods help to address.

In this new unit, learners will explore the alternative methods of offsite and onsite construction that are changing in the construction industry.

- Examine the different forms of alternative construction available in the industry
- Explore the drivers for alternative forms of construction
- Investigate the potential benefits of an alternative method of construction for a given project

### Teach with

Taking this unit provides learners with knowledge that complements other units in the qualifications. For example, taking this unit alongside the following four units will give your learners a good understanding of modern home building and design.

**Unit 18:** Building Information Modelling

**Unit 39:** Housing Design Project

**Unit 41:** Renewable Energy for Housing

**Unit 42:** The Housing Industry

## Renewable Energy for Housing

Housing is one of the largest users of energy. Developing and installing renewable energy systems is becoming increasingly feasible. The need for renewable energy systems is driven by regulation, demand for reduced energy costs and sustainability.

In this new unit, learners will develop plans for improving the sustainability of homes through renewable energy use.

Learners will:

- Explore energy use and the available renewable energy solutions for housing
- Investigate opportunities for renewable energy systems
- Analyse environmental factors and energy requirements
- Generate a plan for the installation of a renewable system in an existing domestic building

### Teach with

This unit provides learners with underlying knowledge that can support other units in the qualification. Teaching this unit combined with any of the following units, will give your learners a good understanding of modern home building and design.

**Unit 18:** Building Information Modelling

**Unit 39:** Housing Design Project

**Unit 40:** Offsite and Alternative Production Methods in Construction

**Unit 42:** The Housing Industry

## The Housing Industry

There are many different factors that have an impact on the housing industry, from politics and economic factors to technology and sustainability. These all influence the housing procurement and development process, but with an understanding of these processes, can be turned into opportunities.

In this new unit, learners will;

- Explore the development and delivery process
- Look at supply chains, types of housing and models of delivery
- Consider the housing procurement process and wider influences that drive housing development
- Look at how this has an impact on a specific housing development

### Teach with

Delivering this new unit alongside the following units from the qualification will give your learners a good understanding of modern house building in context.

**Unit 18:** Building Information Modelling

**Unit 39:** Housing Design Project

**Unit 40:** Offsite and Alternative Production Methods in Construction

**Unit 41:** Renewable Energy for Housing

“ Home is the most important piece of architecture in our lives. It crafts the way we live, and how we grow as families and communities. A well-designed home can enhance the way we live and promote our well-being. ”

*George Clarke – MOBIE Founder and former BTEC Level 3 Learner*

**Find out more:  
[quals.pearson.com/BuiltbyBTEC](https://quals.pearson.com/BuiltbyBTEC)**



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