Curriculum Mapping – BTEC Level 2 Construction

This document outlines where the Sustainable Communities CREST Challenge can contribute to the delivery of the content of the BTEC Level 2 Certificate, Extended Certificate and Diploma. The QCF Rules of Combination state that unit 1 is compulsory in all of these qualifications. Unit 3 is not part of the two BTEC Certificate qualifications, but is mandatory in the Diploma. Unit 4 is optional in all three qualifications. The completion of any Bronze level CREST award contributes significantly to students' development of all personal, learning and thinking skills. As these are not assessed as part of the qualification, links have not been stated here.

Unit 1 – Structure of the Construction Industry

Learning Objective	Link to activity
Understand the diversity of the construction industry	During the site visit the students will encounter the types of work done on construction sites and in preparation for building new homes. This will help them develop a basic picture of *activity areas* and *ranges of work* undertaken.
Know the contribution the construction industry makes to our social and economic wellbeing	This is a tangential fit for this activity. However, students may gain some understanding of the contribution construction can make to the *social economy.* Depending on the nature of the site visit, the students may gain an understanding of the construction economy (e.g. mixed housing developments with commercial and social housing).
Know about human resources in the construction industry	During the site visit, students will gain an understanding of the jobs people do, and the tasks each role involves. This will encompass several levels of the workforce, so students will meet people at different levels within the industry. It is unlikely they will develop understanding of staffing structures.
Know about careers in the construction industry	The students will gain an understanding of the roles people do and the qualifications they require to do them during the site visit. They will also get the opportunity to allocate tasks within their team. It is possible that a creative teacher could use this initiative as a reflective discussion opportunity to develop students' understanding of different types of learning experience and link this to construction industry training.

Unit 3 – Sustainability in the Construction Industry

Learning Objective	Link to activity
Understand the concept of sustainability as it applies to construction and built environment sector	Students will learn about the concept of sustainability as part of their research, and be required to articulate it as part of their project reports at the end of the project. Teachers can also reinforce this knowledge and extend it to include the relevance of sustainability through further classroom activities.
Know the issues affecting the development of a sustainable built environment	This Challenge will build understanding of some issues affecting the development of a sustainable built environment, particularly those relating to materials used in construction and techniques used to build more sustainably.
Know how sustainability can benefit the built environment both locally and nationally	The students will gain an impression of this from talking to the staff during the site visit, and their work investigating the use of sustainable techniques and materials in construction will add to this knowledge.
Know how sustainable design and construction techniques are used to address environmental issues	The students will gain an understanding of how sustainable techniques and materials can be incorporated into buildings, and where in the process this can take place. They will learn this through the site visit, research and planning their own buildings.

Unit 4 – Use of Science and Mathematics in Construction

Learning Objective	Link to Activity
Know the stages of a construction project and the importance of good planning and sequencing of construction work	Through the (assessed) planning process for their projects (including production of a planning chart following the rules of the Gantt Chart system) the students will learn about the construction planning process. This is assessed as part of the CREST award process. Teachers will be able to build on this in schools.
Know the traditional and modern construction processes and operations used in low-rise domestic construction	Students will gather details of some construction processes and operations as part of the research they conduct as part of their projects. This learning can form the foundation for further systematic study. If students have completed systematic study of this before the Challenge, they will be able to apply this during the Challenge.
Understand the properties and uses of natural, processed and manufactured construction materials	In selecting the sustainable materials and techniques they recommend, students will need to understand the nature and uses of these materials. For instance, they will need to compare natural and manufactured insulations (e.g. lambs' wool and Rockwool) and learn about their uses, properties (particularly environmental impact) and also for many materials the health and safety impacts of their use.