

## **Introduction**

This document is designed to help you support schools that want to run the Sustainable Communities CREST Challenge. It will help you whether a school approaches you to do this, or you want to deliver this to your local schools. The document tells you what's required, while suggesting where you can make the greatest possible contribution.

## **What are CREST Challenges?**

CREST Challenges are projects which entitle students who complete them to be considered for a particular level of CREST Award. CREST Awards, managed by the British Science Association, celebrate the personal learning journey students take during a science, technology, engineering or maths (STEM) project. We expect students to demonstrate the ability to think about their own performance and learn from this. In education, this is referred to as reflective learning. To find out more about the British Science Association CREST Award scheme please visit

[www.britishscienceassociation.org/crest](http://www.britishscienceassociation.org/crest)

The role of company staff in setting the scene for this Challenge is to help students make the connection between what they learn in school, and what you do in your work. This document outlines how to make the link real and points out areas you can highlight to give students the greatest chance of success.

## **What are the Aims of the Challenge?**

The aims of the Sustainable Communities CREST Challenge are to:

- Raise awareness of key Challenges for the Construction and Built Environment sector
  - › Sustainable planning and building
  - › Future skills for the industry
- Give students real experience of the construction industry
- Bring positive role models from the industry into schools:
  - › Contributing knowledge
  - › Working with students and teachers
  - › Building relationships
- Raise awareness of roles in the industry, helping make them seem accessible to a wider range of people

## **How does the Challenge work?**

The Sustainable Communities CREST Challenge is designed so that students have the opportunity to demonstrate the skills and aptitudes we look for in the CREST Bronze Award. You can find a list of these in Appendix One.

The CREST Bronze Award requires students to complete a minimum of ten hours of work on a single project. The Award can be offered to students aged 11 – 19 following an appropriate programme of study. It requires the students to do the work, with support from a teacher and where possible from company staff. We hope your organisation will be able to provide staff to support students throughout this project. We've set out minimum requirements below should you be unable to achieve this.



The aim is for students to produce a sustainable development proposal for a site which has to meet certain parameters, and is constrained by the circumstances of the site. More details of this are given in the student team brief.

At the end of the project, the students will produce a proposal for their development, as a team, and then an individual reflective report, which will tell us what they each think they learned, and their role in the team.

**The Challenge has a number of phases:**

1. Site visit and Challenge briefing
2. Project planning
3. Research
4. Designing the development
5. Producing the proposal
6. Completing reflective reports

We don't stipulate how the time for the Challenge is split up, as this will in most cases depend on the school's timetables, and the teachers' view of how long each task will take their students.

**What do I need to do?**

If you or any of your team wish to work on this Challenge and have never worked with schools or colleges before, we suggest that you prepare by registering as a Construction Ambassador, a STEM Ambassador or a similar scheme such as those run by professional institutions. Both the Construction and STEM Ambassador schemes provide basic training in working with young people, and how to do so safely.

<http://www.citb.co.uk/en-GB/Careers-in-Construction/construction-ambassadors/>

<http://www.stemnet.org.uk/content/stem-ambassadors>

Effectively the role of the company and its staff in this is as big or small as you want it to be. If you want to partner with a school to deliver the Challenge, we suggest the following expectations that a school might reasonably have:

**As a minimum**, you would host the site visit by the students, lasting 2-3 hours, and deliver the Challenge briefing at your site.

**Ideally**, you and your colleagues could answer student questions emailed by the teacher, or visit the school to provide your expertise as the project progresses, at the most committed level attending each session when students are working on the Challenge.

Other colleagues, who haven't been directly involved in delivering and supporting the Challenge, could help the teachers complete the assessment of the Awards or deliver additional activities following discussion with the school if your company wishes to offer this. This might include talks about health and safety or career progression in the industry for example.



We encourage you to provide follow up support to build and strengthen the link with the school, and to foster collaboration with the teachers on matters of mutual interest such as careers advice. Your on-going support will also maximise the beneficial effects of the programme for students.

### **Getting Involved:**

To help you understand what schools will be doing, we suggest you read the teachers' briefing before you meet the teachers. Although it contains some educational language, it will give you a general idea of what they have to do to organise the Challenge, and help you organise your support in the most useful way.

We have suggested schools discuss with you a maximum total group size based on how many students you can host in a visit, and whether you can accommodate more than one visit.

Back at school/college students will work in teams of four or five. To make the Challenge as fair as possible, we have suggested each team contains the same number of students.

The site visit mentioned above is a crucial part of the Challenge. There is excellent advice available on how to organise a site visit. A good and thorough example is here:

<http://housingforum.org.uk/sites/default/files/sitevisit-010104.pdf>

This should be read in parallel with the site visit company briefing.

Further sources of advice on how to arrange this Challenge are:

- Your regional CITB Strategic Partnership Adviser. To find out your nearest Strategic Partnership Adviser email [local.strategy@citb.co.uk](mailto:local.strategy@citb.co.uk)
- Your local Education Business Partnership (EBP), if there is one in your area
- Your CREST Local Co-ordinator (see [www.britishsociety.org/crestcontacts](http://www.britishsociety.org/crestcontacts) )

### **Site Visit**

The site visit should be arranged using the Employer Site Visit Briefing document. The crucial aim is that the students should get the knowledge they need from the visit.

Any personal protective equipment required for the visit should be provided by the company, and you should provide the school with a full site risk assessment in advance of the visit. This should not imply that you are assuming total responsibility for the students' health, safety and welfare – this remains the responsibility of the school. Your responsibility is to maintain a safe site, and ensure the visit route does not place the students at serious risk of injury or harm.

At the end of the visit, one of the company's staff should deliver the presentation which gives the Challenge to the students.

We suggest the level of support you are able to provide following the site visit is clearly agreed before the site visit, so expectations and commitments by the school and company to each other are clear.



## APPENDIX ONE – CREST ASSESSMENT CRITERIA

Assessment Criteria
<b>Section 1 - Planning Process</b>
a. Project aims and objectives (How clearly did you identify the Challenge given to you, and the way it broke down into achievable objectives?)
b. Planning and organisation (How well did you plan your project and organise yourselves and those who helped you to complete your project?)
c. Use of material and human resources (How effectively did you decide when to ask for help, and how well did you use that help?)
<b>Section 2 – Project Process</b>
a. Research (How did you find out about the background to and solutions to your project?)
b. Project development (How did you develop the Challenge you were given into a plan?)
c. Project methodology (Did you develop a sound method for your project, with appropriate components, and adapt to things that happened?)
d. Evaluation and conclusions (Did your conclusions flow from your project, and how did you evaluate them?)
e. Quality of project outcomes (How eloquent and effective was your response to the Challenge?)
<b>Section 3 - Project Context</b>
a. Application to 'real world' context and implications (How well did you explain the business, environmental and social value of your project?)
<b>Section 4 – Subject Understanding</b>
a. Scientific and/or technical knowledge (Did you understand the science and technology behind your project, and make it clear in your responses?)
<b>Section 5 – Initiative and Creativity</b>
a. Initiative (Did you take responsibility for solving problems yourselves?)
b. Creativity (How well did you think outside the box when dealing with the Challenge and any problems you had?)
c. Problem Solving (How well did you overcome problems you had during your project?)
<b>Section 6 – Communication</b>
a. Written and oral communication (How well did you tell us about your project, both in writing and speaking to us?)

