

## Exploring House Building Activity Lead Delivery Notes

### Activity Descriptor

The programme aims to bring the world of house building alive through an interactive simulated activity, in addition to exploring ways of solving a 'real' national housing crisis by using STEM (Science, Technology, Engineering and Maths) in a practical work related way.

The simulation activity is [Green Living](#) and all documentation is available via the [Go Construct, Careers and Educational Resource Toolkit](#):

- Participants design and produce a model layout of a sustainable mixed housing development as well as producing a tender document and a presentation of their ideas

Housing crisis scenario:

- Working in their groups, participants take on a number of given roles to look at solutions to overcome the national housing shortage
- This will be followed by hosting a press conference to present their findings to other participants acting as the local and national press

### Industry Ambassador Support

The programme can be further enhanced by the use of an industry ambassador from the house building / construction sector.

If you would like to request an industry ambassador, or if you have any further questions about the programme, please use the [Get in Touch](#) form or Experience Matching Service on [Go Construct](#) (post March 2016) to request a site visit.

### Useful Websites

Please refer to Exploring House Building Useful Websites document on the resource activity page.

### Introduction

Prior to starting the [Green Living](#) activity it is highly recommended you spend 20 minutes introducing the house building sector. Please find some suggestions below:

- **Introduce the Construction Sector:** House building forms part of the construct sector
- Explore the world of construction through the Go Construct website including some [interesting facts and statistics](#)
- **Organise an Industry Ambassador** Invite an industry ambassador to deliver a talk on house building/their career in housebuilding highlighting how they use STEM within their role
- **Research some house building role models** on the [HBF Careers website](#) and
- **Explore** the [history of house building](#) and discover more about [house building](#)

### STEM & House building

Finally ask students to think of some examples about how they think STEM is used in the house building sector. Some examples include:

- A [Land Manager](#) deciding what piece of land to buy based on the area of the site, the cost of buying the land and the selling price of a house built on the land
- Using [Building Information Modelling \(BIM\)](#) to create a 3d plan of a housing development
- A [Joiner](#) measuring a door frame to fit the right size door
- A [Landscape Architect](#) designing the outdoor space for a housing development, choosing the right type of plants based on the type of soil the housing development is built on

## Week 1

Introduce and start Green Living Activity:

- Use [Green Living](#) Powerpoint and Film to introduce Green Living activity
- All the activity documents can be downloaded together using the zipped folder at the bottom of the [Green Living](#) page
- See 'Preparation' and 'Resources Required' on the Activity Cover Sheet as found above

## Week 2

- Continue and complete Green Living activity finishing with the students giving presentations on their final plans
- If possible invite an industry ambassador to judge the students' presentations

## Week 3

Finishing off Green Living activity/presentations if required.

Commence the extension activity for Green Living. Some ideas below:

- Draw a room plan to scale for one of the houses
- Design the interior of one of the rooms for the show house (using catalogues from shops like Argos can support this) and draw up the costings for the design
- Plan, design and locate another building or structure as part of the development that will benefit the residents, e.g. community hall or playground. Think about costs/area required/quality of land/sustainability
- Build an entire model village or town
- Visit a 'live' site or a newly built housing estate with a show house

## Week 4

This week gives you an opportunity to finish off the extension activity if required and start to introduce participants to a new challenge relating to house building.

By week 4, after participants have completed the Green Living activity, they have had an opportunity to:

- simulate the role of a house building company
- experience some of the job roles key to the house building sector
- understand the key themes relating to housebuilding, e.g. finance management, sustainability

## Week 5/6

We would now like to give participants an opportunity to use the knowledge and experience they have developed doing the Green Living activity to think of some solutions to solve one of the critical challenges that the government, the house building sector and local communities face which is:

How do you solve the housing crisis in England/Scotland/Wales/North Ireland?  
(please choose country applicable to you/your group)

Start this section by showing participants the powerpoint presentation available on the Go Construct Exploring House Building activity page.

Hold a press conference for a house building challenge solution.

Ideas for final week:

- Invite an industry representative to talk about their role in construction/housebuilding and ask each group to present their housing plans and solutions to them and their peers
- Spend some time exploring the [Go Construct Careers Explorer](#). Ask participants to do the quiz on the home page and see what roles would suit them

- Visit a 'live' construction site or a completed housing development. Use the [Get in Touch](#) form or Experience Matching Service on [Go Construct](#) (post March 2016) to request a site visit
- Show students the short new Careers in Construction video on the [Go Construct](#) home page

### Concluding the Activity

Ask students:

- What they have learnt about construction and the house building sector?
- Any further thoughts they have about the use of STEM in house building?
- How has the 6 week programme changed their perceptions of the house building sector?
- Would they consider a career in house building?
- To write a short paragraph / produce a short film / prepare 3 powerpoint slides on 3 key things they have learnt from the 6 week programme
- Visit Go Construct Facebook Page or Twitter and feedback what you think

### Further Extension Activities

- [House Building Careers Lesson Plans](#)
- [CREST Bronze Sustainable Communities Challenge](#)
- Visit a 'live' construction site or a completed housing development - use [Get in Touch](#) form or Experience Matching Service on [Go Construct](#) (post March 2016) to request a site visit
- Take part in an Open Doors construction site visit advertised on Experience Matching Service on [Go Construct](#) (post March 2016)