Low Carbon Learning: Next Gen

Construction Skills Programme for 16—24 year olds

Key Facts

Organisations Attending:

Strathclyde University, West Lothian College, Wallace High School, Barrhead High School, Turnbull High School, All Saints High School, Moray high School, Forres Academy, Dunblane High School, Falkirk High School, Denny High School, Lesmahagow High School, Woodfarm High School.

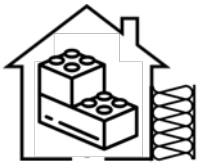
Total Attendees:

117 students aged 13-15
108 students aged 16-24
over 5 on-site workshops
and 1 off-site workshops

Retrofit Workshops

Each of the workshop days covered a range of sessions that were tailored to the group attending to ensure the length and number of sessions and complexity of information was suitable. This content evolved throughout the programme in response to feedback and engagement.

Retrofit theory sessions gave students an introduction to what we mean by retrofit and it will be a key part of achieving our energy reduction targets. It also gave a brief overview of retrofit standard and the kind of adaptions that we will need to make to our existing buildings.



Our Archetypes session gave students experience of building models of the wall types typically used in Scottish domestic buildings using Lego and other materials. The hands on sessions connected the wall type with the typical visuals of houses commonly seen in Scotland and discussed options for approaches to retrofit for each archetype.

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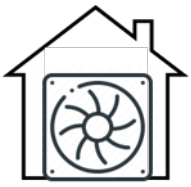
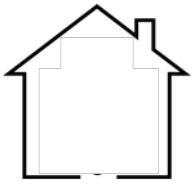
Retrofit workshops

Students were given thermal cameras attached to Ipads to explore in large high definition images how a thermal cameras can be used to identify gaps in insulation or uninsulated services within an existing building. We have constructed rig that allow students to, with the use of a thermal camera, visually see the impact of a retrofit on two seemingly identical builds.

The taping workshop highlighted importance of good workmanship while allowing students the experience of using workshop tools such as staples guns and Stanley knifes to fit an airtight membrane and tape the junctions of window and service protrusions. . As airtightness is a key factoring in saving energy in exiting buildings this workshop provides a introduction to what will be a key skill for a future workforce.



An airtightness specialist provided a theatrical demonstration of a smoke airtightness test one of our test rigs while providing more detail on airtightness testing and certification for Passivhaus construction.



Our retrofit rigs provide students with 1-1 examples of how we might approach retrofit in both cavity wall and solid wall construction.

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