







Insulation Puzzle Construction



Introduction

Welcome to Classroom Clash! This suite of nine games has been designed to inspire pupils to think about possible future careers.

Each game is linked to an industry important to Scotland's economic growth and where there are lots of opportunities for interesting and successful careers. By playing Classroom Clash, your pupils will be introduced to meta-skills and will start to recognise how these skills can be used in lots of different jobs.

Industries explored within Classroom Clash include:

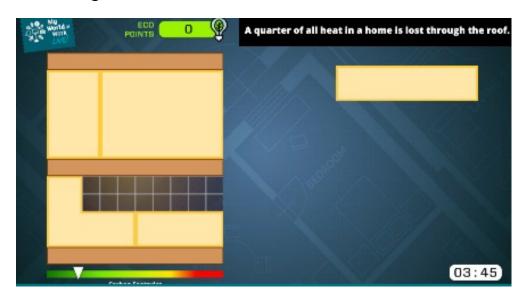
- **Early Learning and Childcare**
- Health and Social Care
- Construction
- Digital Technology
- Finance
- Manufacturing
- Life and Chemical Sciences



Learning objectives

Using the Insulation Puzzle game and **My World of Work**, you will explore careers in the construction industry and discover what skills are required to work in these important job roles. You will learn why energy efficient housing is important, and why organisations and governments need to encourage homeowners to invest in these methods.

In this game, you are challenged to solve the puzzles to fit energy saving insulation to lofts and walls, and use recycled materials to lower the carbon footprint of the buildings.



Success in this lesson will look like:

- I can identify the different meta-skills needed to work within the construction industry
- I can give examples of careers within the construction industry
- I understand why improving the energy efficiency of a house/building is important
- I understand what construction career opportunities there are in Scotland

Curriculum links

Technologies: TCH 2-05a; TCH 2-09a; TCH 2-12a

Numeracy & Mathematics: MNU 2-11a

Literacy: LIT 2-04a; LIT 2-07a; LIT 3-07a

Meta-skills

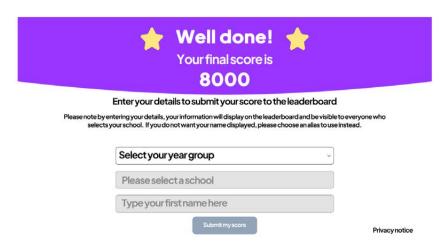
Self-management: Focusing

Social Intelligence: Collaborating

Innovation: Sense making; Creativity

How did your school do?

- Once the game is finished, input your score to the leaderboard
- Check how well your school has scored compared to others across the nation
- Play the game again and try to beat your high score

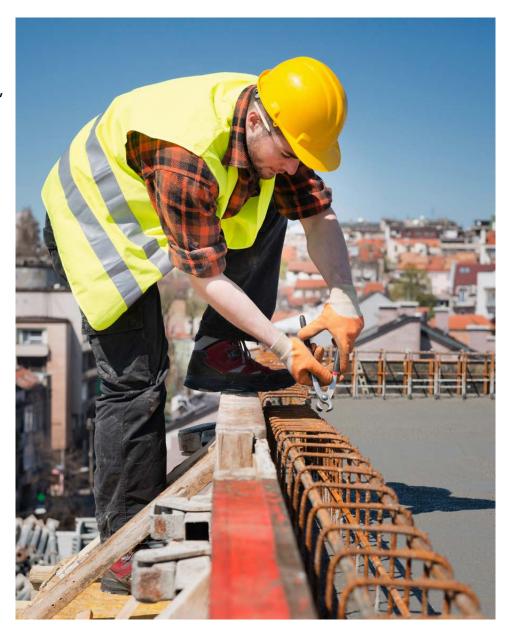


Follow on learning - 10 min activity

- Using the Explore careers profiles on My World of Work, find three careers related to the construction industry, and give a brief description of each and where they might work
- From the careers you found on My World of Work, list some of the skills that are needed to work in the construction industry
- What subjects do you think would be most useful for working in the construction industry?

Additional classroom activities

- **Bridge building competition:** split pupils into groups and provide them with different materials such as lollipop sticks, straws, newspaper and tape. Pupils must design and build the strongest bridge that can hold the most weight, e.g books/coins. Encourage pupils to discuss design and testing methods in their groups and allow for adjustments
- Sustainable building design: challenge pupils to design and build a model eco-friendly house using recycled materials. Discuss sustainability principles like solar panels, rainwater harvesting, and energy efficiency



Related careers

- Architect
- Domestic energy assessor
- Roofer
- **■** Thermal insulation engineer
- **■** Building surveyor
- **■** Joiner
- Site supervisor
- **■** Builders' merchant
- Plasterer
- Dry liner
- **■** Heating and ventilation engineer

Useful construction links

- GoConstruct Construction careers
- **■** Balfour Beatty Careers
- **■** Construction Industry Training Board
- **■** Construction Scotland
- **Scottish Construction Now**

Sectoral Skills Assessments

- **■** Construction
- **■** Engineering



Find your route...

When it comes to your career, there are so many possibilities

- Use My World of Work to find out about different options
- Research different colleges or universities for any courses that interest you:
 - Colleges in Scotland list of members
 - Universities Scotland list of members
- Look at **Apprenticeships.scot** to learn about the pathways that are available. You can start an apprenticeship whilst still at school and you work towards gaining a qualification while on the job. There are 3 options available:
 - Foundation Apprenticeship
 - Modern Apprenticeship
 - Graduate Apprenticeship





Next Steps

Interested in learning more about this sector?

- Make an appointment to speak to your school careers adviser
- Check out the related Construction and the built environment industry pages on My World of Work
- Do some research on related careers by checking out the Explore careers pages on My World of Work
- Listen to industry experts explain their roles within the sector by watching the Virtual Meet the Expert videos
- Find out about routes into work and careers by checking out Apprenticeships.scot

