

# Lesson insert

## Overview

An activity using [myworldofwork.co.uk](http://myworldofwork.co.uk) to link the study Physics and the topic of forces to possible careers.

## Objectives

As part of a wider lesson, this lesson insert intends to:

- Encourage pupils to explore a range of careers related to the study of Physics
- Highlight the transferable skills needed for different careers
- Make a link between the transferable skills pupils are currently developing in Physics with skills needed in the world of work

## My World of Work activity (20mins)

- Go to [myworldofwork.co.uk](http://myworldofwork.co.uk)
- Go to [my career options](#)
- Use the search field in the 'I have a career in mind' tab to find out about different types of engineering jobs

## Connect the learning (in the wider lesson)

- Discuss the different disciplines of engineering and the range of careers they cover
- Ask pupils to complete the crossword using the clues about each type of engineering job
- Ask pupils to think about what subjects would be useful to have, in addition to Physics, for each of the engineering jobs they found in the crossword

## Review and reflect (5mins)

- Ask pupils to reflect on the jobs covered and if they may be interested in following one of these careers

## Science

## Physics

## Forces

## Resources

- Computers or tablets with internet access
- Crossword

## My World of Work links

### Job profiles

[Aerospace engineer](#)  
[Aircraft mechanic or engineer](#)  
[Automotive engineer](#)  
[Chemical engineer](#)  
[Clinical engineer](#)  
[Design engineer](#)  
[Electrical engineer](#)  
[Electronics engineer](#)  
[Energy engineer](#)  
[Quarry engineer](#)  
[Manufacturing systems engineer](#)  
[Marine engineer](#)  
[Materials engineer](#)  
[Structural engineer](#)

### Videos

[Project engineer - Jeff](#)

### Modern Apprenticeships

[Engineering](#)  
[Rail engineering](#)

## Curriculum links

Suitable for S1 to S3 pupils studying:

Physics – BGE

### Experiences and outcomes

SCN 3-07a: By contributing to investigations of energy loss due to friction, I can suggest ways of improving the efficiency of moving systems.

## Career Education Standard (3-18)

Supports entitlements set out in the [Career Education Standard](#) for young people to:

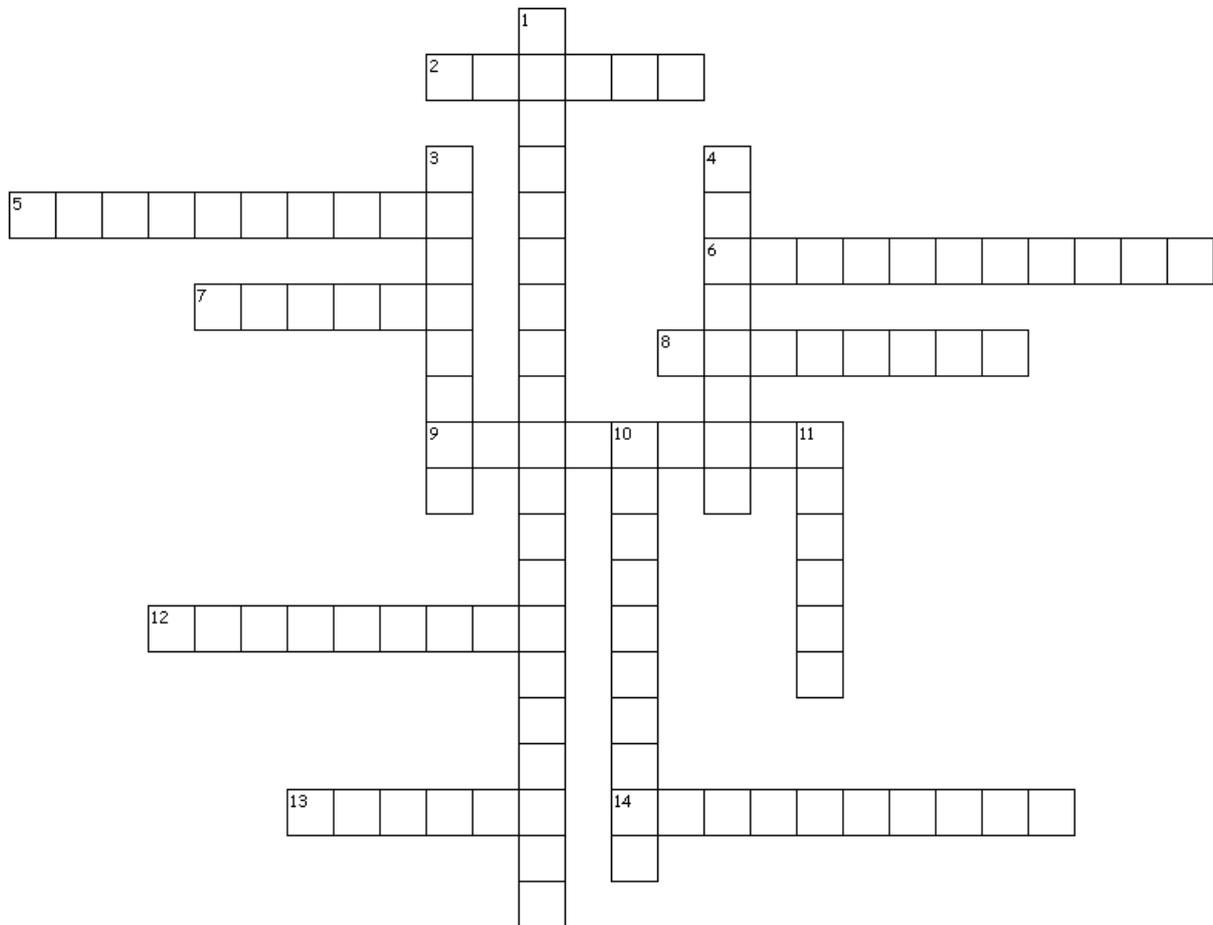
- Experience a curriculum through which they learn about the world of work and job possibilities and which makes clear the **strengths** and **skills** needed to take advantage of these opportunities
- Know where to find information and access support making effective use of online sources such as [My World of Work](#)
- Develop [Career Management Skills](#) as an integral part of their curriculum

# Crossword

Science

Physics

Forces



## Across

2. A \_\_\_ engineer assesses a site and safely sets up and runs a mine or quarry.
5. An \_\_\_ engineer designs, builds and maintains systems and equipment vital to industry and manufacturing.
6. An \_\_\_ engineer designs electronic components used in a huge variety of equipment.
7. A \_\_\_ engineer comes up with the products of the future; making and improving things we use every day.
8. An \_\_\_ engineer checks aeroplanes and helicopters in between flights to make sure they will fly safely.
9. An \_\_\_ engineer designs and builds aircraft, spacecraft, satellites, and rockets to make them safe and efficient.
12. A \_\_\_ tests and researches the materials of the future to use them in new technology and better products.
13. A \_\_\_ engineer designs, builds and repairs ships, boats and offshore oil and gas platforms.
14. An \_\_\_ engineer designs, tests and develops the cars and motor vehicles of the future.

## Down

1. A \_\_\_ engineer designs and installs the equipment that will make a factory more efficient.
3. A \_\_\_ engineer creates medical technology to help people enjoy better health and greater independence.
4. A \_\_\_ engineer improves the manufacturing processes needed to turn raw materials into products.
10. A \_\_\_ engineer creates and improves the structure for all kinds of building projects.
11. An \_\_\_ engineer designs and constructs sites to generate power from the wind, sun and water. They also extract oil and gas for energy.