

PSHE Plan

#TEWeek19



Tomorrow's Engineers Week 2019 provides a unique opportunity for engineers, employers, universities and schools to showcase how engineers are on a mission to make the world a better place.

At the heart of the Week will be a "Big Assembly" where around 50,000 young people are expected to take part in the same school assembly at the same time. The Big Assembly will feature inspirational engineers on a mission to improve people's health and the nation's wellbeing by protecting the environment.

This lesson plan helps you to integrate the Big Assembly into the school day in PSHE session. Other lesson plans are available for STEM lessons or a larger Assembly.

Date:

Year:

Years 8-9

Lesson:

PSHE

Topic

Careers in Engineering – Tomorrow's Engineers Week Big Assembly

Learning objective and outcome

By the end of today's lesson you will understand what a career in engineering involves and the ways in which engineers use their skills to make the world a better place.

Before the lesson begins

Place the eight 'Find Your Route Into Engineering' Postcards around the classroom. Put some in obvious places and others can be hidden more carefully. For larger groups, it may be useful to have two sets of the postcards so that there are 16 cards for students to use.

Starter activity (5 min)

Access prior knowledge. As students enter the room, display the question on the board: What does an engineer do? Think – pair – share. Students can either volunteer or specific individuals can be invited (depending on the nature of the group) to come up to the board and write their ideas around the question.

Teacher moderates the responses and helps to clear up misunderstandings (some students may have a very narrow or limited idea of what engineers do) without going into too much detail.

Teacher reinforces the message that there are many different types of engineers but what links them is their mission to make the world a better place and the Tomorrow's Engineers Week Big Assembly they are about to watch will show them some examples.

Main Activity (approx. 30 mins)

Students view the Tomorrow's Engineers Week Big Assembly.

Encourage students to listen carefully and note down any questions they have in the back of their exercise books. When the Big Assembly is finished, allow time to discuss any questions students have.

You could get the discussion going by posing questions such as:

- Did you learn anything new from the Big Assembly?
- What was the most impressive example of engineering you saw?
- Do you have any great engineering ideas of your own to solve real-life problems facing us in the twenty-first century?
- Are there any problems here in school which engineering could help us to solve?

A Q&A sheet for students to complete will be available from bigassembly.org closer to the time of the broadcast.

Student Activity (20 mins)

Information hunt. Issue pairs of students with a bingo card.

Pairs must travel around the classroom finding the answers on the eight 'Find Your Route Into Engineering' Postcards and fill in their bingo cards. Students compete to get a full house.

Extension / suggestion for students with visual impairment: Students who complete their bingo cards quickly can have a go at the 'Imagine you're an engineer' tasks on one of the postcards and feedback their ideas during the plenary activity.

Plenary (5 min)

Return to the opening question: What does an engineer do? In a different coloured whiteboard pen, add to the statements students put up at the start of the lesson – there should be a lot more they can say now!

Any students who had a go at the extension task in the student activity time could present their ideas at this point.

Assessment

Students can be assessed on the quality of their contributions to the discussions and their ability to find the appropriate information during the bingo activity.

Key Words

Engineering

Differentiation

Differentiation by outcome. Some students may find the Information Hunt activity more challenging, particularly if they have weaker literacy skills.

Some assistance with difficult vocabulary may be needed. For SEN students, it may be necessary to reduce the amount of bingo squares they need to find and complete.

Resources

- A projector and screen to show the 'Big Assembly' presentation
- Register for the Tomorrow's Engineers Week Big Assembly online: www.bigassembly.org/register-tew
- Sufficient copies of the Bingo cards
- Sufficient copies of the 'Find Your Route Into Engineering' Postcards www.tomorrowsengineers.org.uk/careers-resources-activities/find-your-route-into-engineering-postcards

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