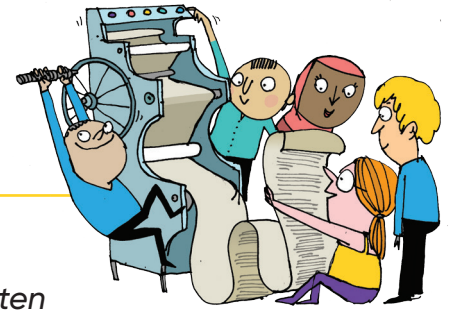


Engineering Everywhere: PowerPoint Quizzes



Look around you – there's engineering everywhere, although we often don't stop to think about it. Take your toast in the morning – engineers have been involved at every stage of the process that brought it to your breakfast plate. From the tools that the farmers use to plant, grow and harvest the wheat to the mills that grind it ... from the ovens that turn flour, sugar and yeast into bread to the machines that wrap and pack it ... from the lorries that distribute the loaves all over the country to the controlled environments of the shops that sell it, engineers have been there all the way through. And that's just toast!

Human beings are natural engineers. We've been engineering since the Stone Age, creating tools from flint. And we're doing it now, sending satellites into space. So each of these PowerPoint Quizzes contains ten questions about Engineering Through the Ages ...

- Engineering Everywhere 1: 8 – 12 years
- Engineering Everywhere 2: 13 – 14 years
- Engineering Everywhere 3: 15 – 17 years

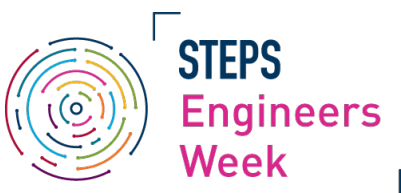
There are a number of ways of using the resources – and here are three suggestions.

1. Working Your Way Through

Open the presentation for your class and work your way through the first two slides. As you get to Slide 3, explain that pupils might know the answers to some questions straight away, while they might have to think about others – and there may be some where they find themselves taking educated guesses.

Advance to Slide 4 – asking pupils what types of engineering the images represent.

When you reach Slide 5, you'll see an image of a wheel – ask the pupils what they know about it. Progress to the next slide, to reveal a question, with three possible answers. Give the pupils some time, working in pairs, to agree an answer. Share some of their responses – then advance to the next slide to reveal the correct answer, with some supporting information.



STEPS

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The next two slides will provide you with a bit more information on the other two options. Continue the process for a further six questions on Engineering Through the Ages (all three options are correct for Question 7!), and three question on the Irish engineer, Alice Perry.

2. Engineering Timelines

Go through the activity as in (1) above – but asking pupils to make notes as they go along of (a) the innovations they are introduced to, and (b) when they happened. Once you've finished the quizzes, challenge the pupils to use the information they've gathered to create illustrated Timelines.

3. Meet the Experts!

Divide the class into seven groups – and instruct each to conduct some research ...

- Group 1: the history of the wheel ...
- Group 2: the history of the compass ...
- Group 3: the first printing presses ...
- Group 4: the early history of the railways in Ireland ...
- Group 5: the history of submarines ...
- Group 6: sustainable energy in Ireland ...
- Group 7: engineers and Covid-19 vaccines.

Once the research has been conducted, run the activity as in (1) above – but with two differences.

1. When taking responses to a question, make sure you leave the "Expert Group" for that topic until last.
2. After revealing the answer to the question, and all the supporting information, ask the Expert Group for three more facts on their field of expertise.

