

Lesson Plan

Ahead of taking part in *I'm an Engineer*, book a Chat and see the **Teacher Guidance notes for preparation information.**

Here is a script you could use to introduce the activity to your students:

Students, today we are taking part in an *I'm an Engineer* Chat. Engineers have been invited to come and chat with us online, through typed conversations. You can ask them any question you like and they'll reply. We're doing this to develop our:

- Subject knowledge
- Question formation
- Careers understanding
- Online behaviour skills

We'll have half an hour to chat with these engineers. First, we need to create an account and log in.

[If using login cards]: I am going to hand out a login card with a pre-made username and password. I have a copy of who has which card.

[If using the student registration URL]: I have shared a link with you to create an account. You will need to use your school email address.

If you already have an account, you can join our class using this link *[display 'Existing students join' URL]*

The moderator will open the Chat and explain how it works. After we have finished the Chat, I will receive a transcript of the whole chat, deleted lines and all.

After the Chat, you will have 5 minutes to ask any follow-up questions that you have. The moderator will give us a link to the Ask page. You can also vote for your favourite engineer. The winner at the end of the year will receive £500.

Lesson Objectives:

- Show research skills in reading engineer profiles to construct questions which involve higher-order thinking
- Recall new subject content relevant to their current school topics
- Name at least two engineering-related careers
- Engage in conversations with engineers in an appropriate manner
- Use the internet safely by demonstrating appropriate behaviour
- Use critical thinking to make an informed voting decision



Curriculum links:

- Apply principles and concepts to unfamiliar situations
- Make informed judgements about STEM

Resources:

- Chat booking
 - **Important:** book in advance from your **Dashboard**
- Computers, laptops, or tablets
- Login cards or registration URL for individuals or pairs
 - You will find these from your Dashboard or your Chat booking confirmation
- Profiles of the engineers attending your Chat
- Reflection activity (linked on Dashboard)

Starter (or Homework set last lesson): 10 minutes

1. Give students access to the activity through pre-made login cards or student registration URL
2. Tell students which engineers will be attending your Chat
3. Students should explore the profiles of the engineers attending your Chat - each student should write down 3 questions they would like to ask during the Chat

Support:

- Students work in pairs
- Come up with some questions as a group
- Scaffold questions or provide sentence starters

Extend:

- Students look at the questions they have formed and see if they can make them open-ended questions

Chat: 30 minutes

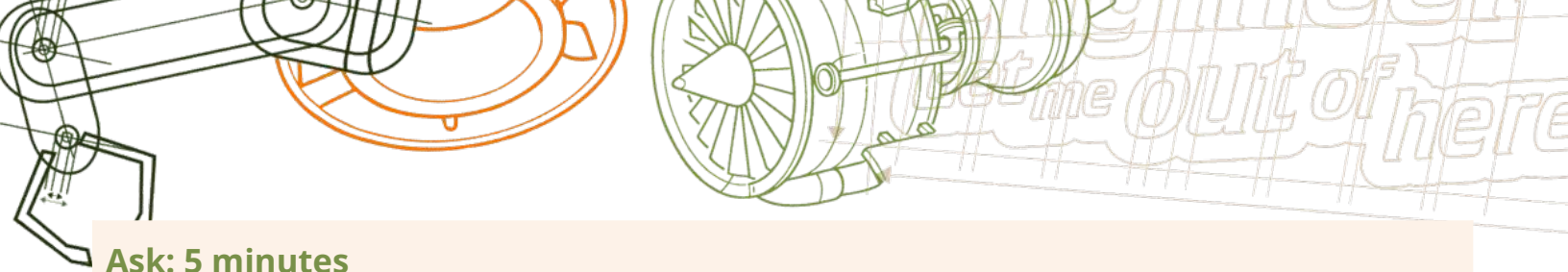
1. Students access the Chat
2. Students ask their questions to the engineers, as individuals, pairs or small groups
 - a. *See the teacher guidance for how the Chat system works*
3. Students should stop for a moment to take a look at the response to their question. Students should consider:
 - a. Do they have a follow-up question?
 - b. Do they want more detail?
 - c. Do they need a clearer explanation?
 - d. Are they ready to move onto their next question?

Support:

- Ask the students if they fully understood the response they got. If not, encourage the students to ask for more detail

Extend:

- Students who have asked 3 or more questions should take a look at the responses. Can they ask a follow-up question?
- Students should take a look at their peers' questions. Do they have a follow-up question?



Ask: 5 minutes

- In the final few minutes of the Chat, alongside the mod's prompt, encourage students to think of a question that they'd like more information about
- Students use the Ask feature to ask their questions; this is also a good chance to re-ask a question that didn't get answered in the Chat

Support:

- Students could ask a question about a personal interest of theirs or the engineers

Extend:

- Students should think about a question that was answered by engineers in the Chat - can they ask a follow-up question to this to deepen their understanding?

Vote: 3 minutes

- Students should take a minute or two to consider which engineer is the most deserving of their vote - share with a partner why this is the case
- Students vote from the Vote page for their favourite engineer to win £500

Reflect: 5 minutes

- Complete the class **reflection activity** to facilitate discussion around your students' experience
- Through this assessment tool, students delve deeper into the **learning outcomes** they have met