

Practitioner information

Introduction

This resource helps learners unpack and understand communication: a skill they may take for granted and, as a result, underestimate in importance for engineers. They explore specific instances of engineering communications and the different forms these may take, and consider the specific skills that underpin high-quality written and verbal communication. Learners explore some ethical dimensions of communications, with an emphasis on enterprise.

Topic links

- Communication
- Enterprise
- Skills for employability, teamworking, and project management

Suggested learning outcomes

Learners will be able to:

- list audience types, examples, and forms of communication in engineering
- describe the features of any high-quality communication in an engineering enterprise
- explain the importance of upholding professional ethics when communicating in an engineering enterprise.

Why this topic is relevant for engineers

Engineering relies on precision, and this includes the technical information engineers share, such as material specifications, dimensions, and performance characteristics. But engineers also need to communicate their ideas, creativity, and different perspectives that help define and explain what they are producing, for whom, and why, to effectively underpin teamworking, client services, and investor relations in engineering and enterprise.

Delivering the theory: What do entrepreneurs communicate?

- Ask learners to discuss what conversations they might have when planning a project or working with others to fabricate a part. What information do they need to share, with whom, and why?
- To highlight the need to translate technical jargon into easy-to-understand ideas for a non-technical audience, ask learners to share how they might explain some of the skills and equipment they use to a friend or family member.
- Learners can group the forms of communication into informal, formal, or both, and suggest occasions when each one might be appropriate.
- Discuss learners' use of language in their work, especially any use of slang, abbreviations, or emojis in communications that require a formal tone.

Practitioner information

Delivering the theory: Skills for high-quality communication

- Ask learners to imagine a conversation or text exchange from both sides: as the 'sender', what signs tell them that the other person is not listening or reading with sufficient attention? How does this make them feel? On the other hand, as the 'receiver', what is it like when the other person is not being clear in what they say or write?
- Identify some possible effects of poor communication in personal, engineering, and enterprise contexts.
- Note that learners can find out more about body language and presentation skills in the **6. Pitching for entrepreneurs** resource.
- Discuss opportunities for feedback on communication including what learners can observe in real time, ask for informally, or are given in formal contexts.

Delivering the theory: Communication, ethics, and enterprise

- The Academy's complete ethical principles are available at www.raeng.org.uk/media/k3hjbd35/statement-of-ethical-principles.pdf
- Discuss with learners the importance of applying these principles in their projects and assignments for assessment, applications for jobs or industry placements, and at interview. Identify not only which principles apply, but specifically how to apply each one – what behaviours can they guide?

Delivering the case study: Investor meeting

- You may wish to contextualise the case study to add more detail, for example, to place the case study in an area of technology or engineering of interest to learners.
- Help learners understand that the investor has provided the enterprise with funds in return for an ownership stake in the business. From that stake, they expect an agreed return on their investment – that they will be able to withdraw a significantly larger amount from the business at an agreed time in the future. This represents a risk, and the purpose of the meeting is to help them understand whether the level of risk is the same, less, or has increased.