

A detailed photograph of an industrial robotic arm in a factory. The arm is yellow and black, with various cables and hoses attached. It is positioned in a dark environment with bright orange and red lighting, possibly from a furnace or welding process. The background shows a complex industrial structure with metal beams and pipes.

Oxford English for

Electrical and Mechanical

Engineering

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Technical contents

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Engineering – what's it all about?

Tuning-in

Task 1

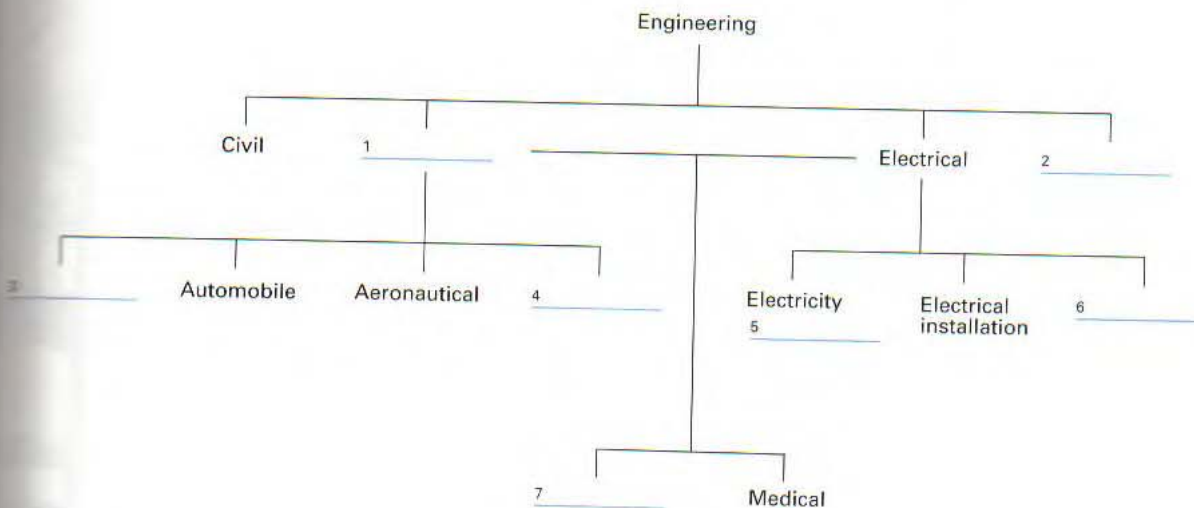
List the main branches of engineering. Combine your list with others in your group. Then read this text to find out how many of the branches listed are mentioned.

Engineering is largely a practical activity. It is about putting ideas into action. Civil engineering is concerned with making bridges, roads, airports, etc. Mechanical engineering deals with the design and manufacture of tools and machines. Electrical engineering is about the generation and distribution of electricity and its many applications. Electronic engineering is concerned with developing components and equipment for communications, computing, and so on.

Mechanical engineering includes marine, automobile, aeronautical, heating and ventilating, and others. Electrical engineering includes electricity generating, electrical installation, lighting, etc. Mining and medical engineering belong partly to mechanical and partly to electrical.

Task 2

Complete the blanks in this diagram using information from the text.

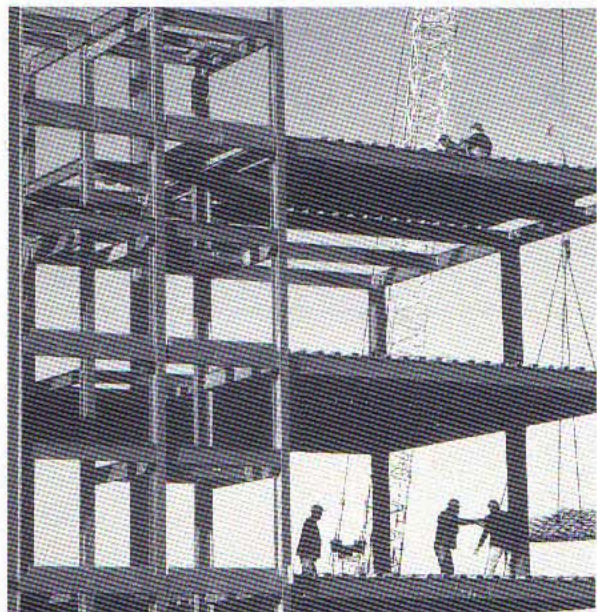
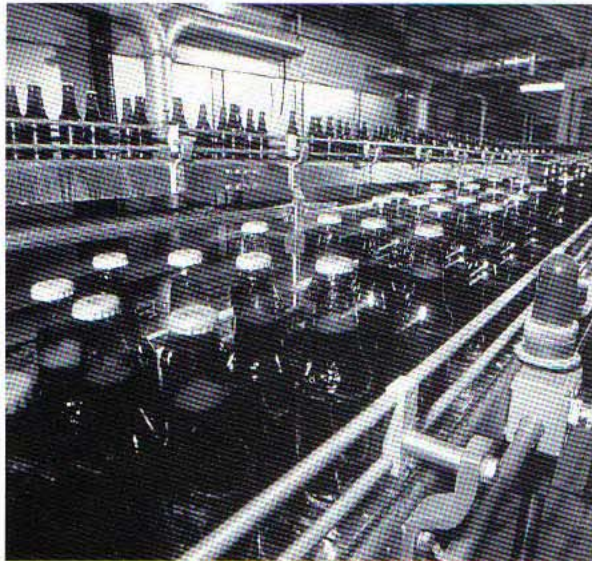


Reading *Introduction*

In your study and work, it is important to think about what you are going to read before you read. This helps you to link old and new knowledge and to make guesses about the meaning of the text. It is also important to have a clear purpose so that you choose the best way to read. In this book, you will find tasks to make you think before you read and tasks to help you to have a clear purpose when you read.

Task 3

Study these illustrations. They show some of the areas in which engineers work. Can you identify them? What kinds of engineers are concerned with these areas – electrical, mechanical, or both?



Task 4

Now read the following texts to check your answers to Task 3. Match each text to one of the illustrations above.