

**CAREER  
PATHS**

# Engineering

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Book  
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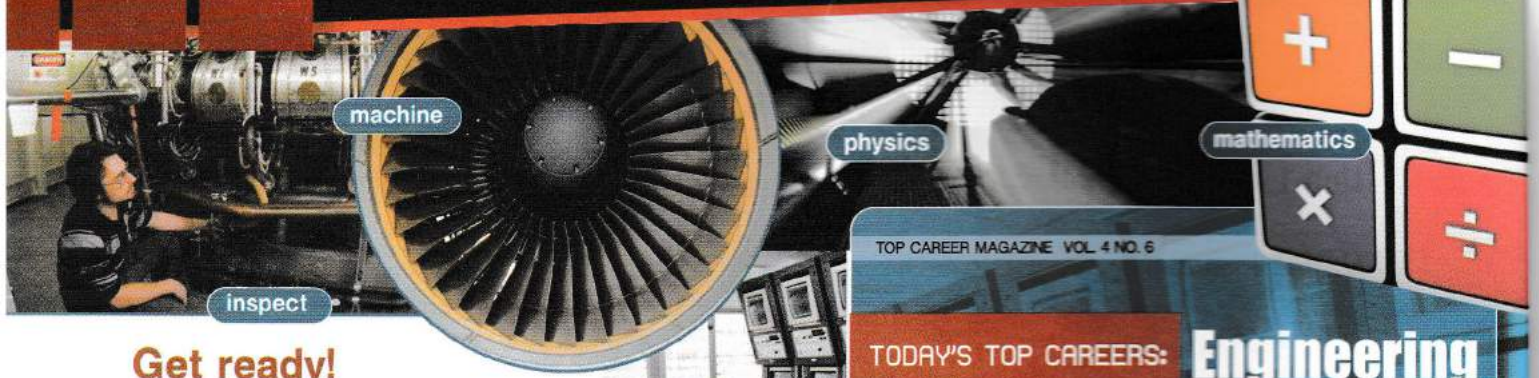
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# 1 What is engineering?



## Get ready!

1 Before you read the passage, talk about these questions.

- 1 How does technology make your life easier?
- 2 Why are mathematics and physics important?

## Reading

2 Read this magazine article. Then, choose the correct answers.

- 1 What is the magazine article mainly about?
  - A the importance of mathematics
  - B the machines that engineers design
  - C the work and ideas in engineering
  - D how new technologies change the world
- 2 According to the article, which of the following do engineers NOT do?
  - A design roadways
  - B analyze machines
  - C develop new ideas
  - D create new materials
- 3 What can be inferred about students of engineering?
  - A They take classes in physics.
  - B They do not take classes in English.
  - C They attend an extra year of college.
  - D They design machines in class.

## TODAY'S TOP CAREERS: Engineering

Engineering is one of today's fastest growing careers. That's because **engineers** work in so many areas. Some engineers **design** roadways. Others **inspect** very complicated **machines**. But no matter where they work, they all have two things in common: math and science. **Disciplines** like **mathematics** and **physics** are a must for any engineer. And so becoming an engineer requires extensive study.

Engineers **develop** fascinating new ideas. These new ideas change the world in big ways. Engineers also create the **technologies** that make our lives easier. The field of engineering truly is crucial in today's modern world. It is expanding every day, and is a great field to go into.

## Vocabulary

3 Check (✓) the sentence that uses the underlined word correctly.

- 1 — A A machine is a branch of instruction or learning.  
— B To design something is to plan how it will look and function.
- 2 — A To inspect something is to examine it carefully.  
— B Mathematics is a science that studies matter.
- 3 — A Engineering is the study of quantity, structure, and change.  
— B To develop something is to create it or cause it to grow.
- 4 — A Technology is a type of machine that makes life easier.  
— B Physics is the art of using the knowledge gained by science.
- 5 — A A machine is a device that has multiple parts and does work.  
— B A discipline is a person who applies scientific knowledge.



- 4 Use the words from the word bank to fill in the blanks.

### Word BANK

mathematics    engineering    engineer  
physics    disciplines

- 1 Daniel wants to be a(n) \_\_\_\_\_.
- 2 \_\_\_\_\_ investigates how mass and movement interact.
- 3 \_\_\_\_\_ classes are for students who want to build structures.
- 4 \_\_\_\_\_ includes studying addition and division.
- 5 This university offers degrees in many different \_\_\_\_\_.

- 5 Listen and read the article. How do engineers change our lives?

## Listening

- 6 Listen to a conversation between an engineer and a new employee. Mark the following statements as true (T) or false (F).

- 1 ☐ The woman just left the engineering lab.
- 2 ☐ The woman is there to inspect a design.
- 3 ☐ The man designed the vehicle's engine.

- 7 Listen again and complete the conversation.

**Engineer 1:** Excuse me. Do you know where the 1 \_\_\_\_\_ lab is?

**Engineer 2:** Absolutely. Right this way. Are you new here?

**Engineer 1:** Yes. I'm Sarah Gladstone. I'm here to 2 \_\_\_\_\_ the company's new engine 3 \_\_\_\_\_.

**Engineer 2:** Nice to meet you. I'm Bob Sanders. I'm designing the vehicle that the 4 \_\_\_\_\_ is going into.

**Engineer 1:** I see. How's it going?

**Engineer 2:** Pretty well. But we're still working on some of the 5 \_\_\_\_\_.

**Engineer 1:** Well, some projects 6 \_\_\_\_\_ than others.

**Engineer 2:** Exactly. Here's the engineering lab. Good luck with your first day!

## Speaking

- 8 With a partner, act out the roles below, based on task 7. Then switch roles.

### USE LANGUAGE SUCH AS:

*Do you know where the ... is?*  
*I'm here to analyze the ...*  
*But we're still working on ...*

**Student A:** You are a new employee. Talk to Student B about:

- location of a room
- your project
- Student B's project

Make up a name for the employee.

**Student B:** You work with Student A. Answer his or her questions.

Make up a name for the employee.

## Writing

- 9 You are an engineer. Use the conversation from Task 8 to complete a diary entry about your first day at a new job (100-120 words). Write about:

- someone you met and what they do
- what you are doing in your new job
- a room you were shown to
- Use today's date.