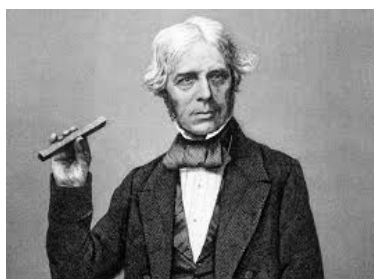


ADVANCED LESSON:

# Michael Faraday Scientist

INCLUDING THE PERFECT TENSES



LESSON LINK: <https://oxford-institute-education.com/michael-faraday/>

**Who was Michael Faraday?** He was an English scientist who contributed to the study of electromagnetism and electrochemistry.

## LESSON INSTRUCTIONS:

Read through the paragraphs and the new vocabulary, then watch the video and answer the questions beneath the video. Then return to the beginning of the lesson and complete the writing exercises using the nominated grammar concepts. You will also find a series of grammar questions towards the end of the lesson.

**INTRODUCTION: QUESTION? Can you remember who Michael Faraday was from your school studies?**

Michael Faraday was born on September 22, 1791 in South London. His family was not wealthy and Faraday received only a basic formal education. When he was 14, he was **apprenticed** to a local bookbinder and for the next seven years trained by reading books on **a wide range** of scientific subjects.

<https://www.fiverr.com/s/KWmqp4>

## SECTION ONE:

In 1812 Faraday attended four lectures given by the chemist Humphry Davy at the Royal Institution. Subsequently, Faraday wrote to Davy asking for a job as his assistant. Davy **turned him down**, but in 1813 appointed him assistant chemist at the Royal Institution. A year later, Faraday was invited **to accompany** Davy and his wife on an 18-month European tour, visiting France, Switzerland, Italy and Belgium and meeting many influential scientists. Upon his return in 1815, Faraday continued to work at the Royal Institution, helping with the experiments of Davy

and other scientists. In 1821 he published his work on electromagnetic rotation (the principle behind the electric motor).

He was able to do little further research in the 1820s, busy as he was with other projects. In 1826 **he founded** the Royal Institution's Friday Night Lectures and in the same year the Christmas Lectures, which continue to this day.

**QUESTION:** ASK THE TEACHER ONE QUESTION ABOUT THE CONTENT IN THIS PARAGRAPH:

**WRITING:** WRITE A SHORT SUMMARY OF THE INFORMATION IN THIS PARAGRAPH:

### LISTENING SECTION:

Listen and watch the video and answer the questions below. [Click the link](#)

<https://youtu.be/MD3f3IMvDHU>

### QUESTIONS:

1. What important object did Michael Faraday invent that we use so much today and is used in an electric car?
2. What kind of family did Faraday **grow up in**? List two adjectives used to describe them?
3. Describe Michael's father's job? What did he do and what is it's name?
4. What is a **snag**?

### SECTION TWO:

He himself gave many lectures, **establishing himself** as the leading scientific **lecturer** of his time. In 1831 Faraday discovered **electromagnetic induction**, the principle behind the electrical transformer and **generator**. This discovery was **instrumental** in allowing electricity to go from being a curiosity to a powerful new technology. During the rest of the decade he worked on developing his ideas about electricity. He was **partly responsible** for **coining** many familiar words, such as "**electrode,**" "**cathode,**" and "**ion.**" Faraday's scientific knowledge was put into practice through various official appointments, including **scientific advisor** at Trinity House (1836-1865) and professor of chemistry at the Royal Military Academy, Woolwich (1830-1851).

**QUESTION:** ASK THE TEACHER ONE QUESTION ABOUT THE CONTENT IN THIS PARAGRAPH:

**WRITING:** WRITE A SHORT SUMMARY OF THE INFORMATION IN THIS PARAGRAPH:

In your answer use an example of the two grammar concepts below on the next page.

## Future Perfect & Future Perfect Progressive Diagram.

### Future Perfect & Future Perfect Progressive

Tense	Future Perfect	Future Perfect Progressive
Diagram		
Form	Will + Have + Past Participle	Will + Have + Been + -ing Verb
Function	The first future action will finish before the second future action.	The first future action will continue until the second future action.
Time Markers	<ul style="list-style-type: none"> <li>• by the time</li> <li>• when</li> <li>• before</li> </ul> (Note: The typical future markers <i>next</i> , <i>tomorrow</i> , and <i>from now</i> are often additionally used.)	<ul style="list-style-type: none"> <li>• by the time</li> <li>• when</li> <li>• before</li> </ul> (Note: The typical progressive marker <i>for</i> is often additionally used.)
Examples	I <b>will have finished</b> dinner by the time she calls me tonight.	I <b>will have been studying</b> for two hours by the time she calls me tonight.

### SECTION THREE:

However, in the early 1840s Faraday's health **began to fail** and he **engaged** in less research. He died on 25 August 1867 at Hampton Court, where he had received an official **lodging** in recognition of his contribution to science. He gave his name to the **\farad\**, which originally described **a unit of electric charge** but later **a unit of electric capacity**.

**QUESTION:** ASK ME ONE QUESTION ABOUT THE CONTENT IN THIS PARAGRAPH:

**WRITING:** WRITE A SHORT SUMMARY OF THE INFORMATION IN THIS PARAGRAPH:

Advertisement

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### PORTUGUESE LESSONS

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Now answer the questions below on the next page.

## QUIZ: ALL 12 SIMPLE & PERFECT TENSES

Circle the correct verb tense for each sentence.

1. By the time she gets this message, we \_\_\_\_\_ the meeting.
  - a) will start
  - b) will have been starting
  - c) will have started
  - d) are starting
2. My roommate must be tired. She \_\_\_\_\_ for nine hours.
  - a) am sleeping
  - b) has been sleeping
  - c) will have been sleeping
  - d) will be sleeping
3. \_\_\_\_\_ to Japan?
  - a) Have you travelled
  - b) Did you travel
  - c) Are you travelled
  - d) Had you travelled
6. By the time their friend arrived, they \_\_\_\_\_ for three hours.
  - a) will have been waiting
  - b) have been waiting
  - c) had been waiting
  - d) are waiting
7. When he finishes preparing for his presentation, he \_\_\_\_\_ home.
  - a) will go
  - b) goes
  - c) will have gone
  - d) will have been going
8. He had been studying for two hours when the doorbell \_\_\_\_\_.
  - a) rang
  - b) had been ringing
  - c) was ringing
  - d) had rung

**How many questions did you get correct?**