SPEAKING

Student 1 Set 1: Famous all over the World

Preparation – 10 minutes

Task 1

1. Monologue. Time: 3-4 minutes.

Prepare to speak **about Charles Darwin** using the Fact File.

You will have to comment on:

- Facts from the biography
- Interesting facts
- Where the scientist studied
- What the scientist is famous for

Imagine you are doing a project at your school about a famous Englishman. Speaking in the project group you have to

– comment on the 4 aspects mentioned above;

– remember to make an introduction and conclusion.

You can make notes during the preparation time, but you **are not allowed to read** the notes made during the preparation time.

2. Questions/ Answers: Time: 2- 3 minutes

Now answer 2 questions from your partner, who wants to get ADDITIONAL INFORMATION, not mentioned in your presentation.

Task 2

Now you are a member of the project group.

1. **Listen** to the presentation of your partner

2. ***Questions/ Answers: Time: 2-3 minutes.*** Ask 2 QUESTIONS **about Isaak Newton** to get ADDITIONAL INFORMATION not mentioned in the presentation.

2 presentations and questions – 15 minutes

YOUR ANSWERS WILL BE RECORDED

FACT FILE

Charles Darwin

Charles Robert Darwin (1809-1882) transformed the way we understand the natural world with ideas that, in his day, were nothing short of revolutionary. He and his fellow pioneers in the field of biology gave us insight into the fantastic diversity of life on Earth and its origins, including our own as a species.

Charles Darwin is celebrated as one of the greatest British scientists who ever lived, but in his time his radical theories brought him into conflict with members of the Church of England. Darwin at first shocked religious Victorian society by suggesting that animals and humans shared a common ancestry.

Born in 1809 in Shrewsbury, Shropshire, Darwin was fascinated by the natural world from a young age. Growing up he was an avid reader of nature books and devoted his spare time to exploring the fields and woodlands around his home, collecting plants and insects.

In 1825 Darwin enrolled in medical school at the University of Edinburgh, where he witnessed surgery on a child. Surgeries at the time would have been carried out without the use of anaesthetic or antiseptics, and fatalities were common. Watching this procedure left Darwin so traumatised that he gave up his studies without completing the course.

During his time in Edinburgh, Darwin also paid for lessons in taxidermy from John Edmonstone, a former enslaved man from Guyana. The skills Edmonstone taught Darwin became crucial just a few years further into his career.

After his time in Scotland, Darwin went to Cambridge University to study theology.

In no rush to take holy orders, in 1831 Darwin accepted an offer to embark on a five-year voyage aboard *HMS Beagle*. He was recommended by one of his Cambridge professors for the role as naturalist and companion to the ship's captain, Robert FitzRoy.

The journey would change both his life and the trajectory of Western scientific thinking. Darwin explored remote regions and marvelled at a world so different

from the one he knew. He encountered birds with bright blue feet, sharks with T-shaped heads and giant tortoises. On his travels Darwin collected plants, animals and fossils, and took copious field notes. These collections and records provided the evidence he needed to develop his remarkable theory.

Darwin returned to England in 1836. A highly methodical scholar, constantly collecting and observing, he spent many years comparing and analysing specimens before finally declaring that evolution occurs by a process of natural selection.

To this day the theory of evolution by natural selection is accepted by the scientific community as the best evidence-based explanation for the diversity and complexity of life on Earth.

The theory proposes that the ‘fittest’ individual organisms - those with the characteristics best suited to their environment - are more likely to survive and reproduce. They pass on these desirable characteristics to their offspring. Gradually these features may become more common in a population, so species change over time. If the changes are great enough, they could produce a new species altogether.

SPEAKING

Student 2 Set 1: Famous all over the World

Preparation – 10 minutes

Task 1

You are doing a project at your school about a famous Englishman. As a member of the project group

1. ***Listen*** to the presentation of your partner

2. ***Questions/ Answers: Time: 2-3 minutes.*** Ask 2 QUESTIONS **about Charles Darwin** to get ADDITIONAL INFORMATION not mentioned in the presentation.

Task 2

1. Monologue. Time: 3-4 minutes.

Prepare to speak **about Isaak Newton** using the Fact File.

You will have to comment on:

- Facts from the biography
- Interesting facts
- Where the scientist studied
- What the scientist is famous for

Imagine you are doing a project at your school about a famous Englishman. Speaking in the project group you have to

– comment on the 4 aspects mentioned above;

– remember to make an introduction and conclusion.

You can make notes during the preparation time, but you **are not allowed to read** the notes made during the preparation time.

2. Questions/ Answers: Time: 2- 3 minutes

Now answer 2 questions from your partner, who wants to get ADDITIONAL INFORMATION, not mentioned in your presentation.

2 presentations and questions – 15 minutes

YOUR ANSWERS WILL BE RECORDED

FACT FILE

Isaac Newton

Isaac Newton was an English physicist and mathematician famous for his laws of physics. He was a key figure in the Scientific Revolution of the 17th century. He developed the principles of modern physics, including the laws of motion and is credited as one of the great minds of the 17th-century Scientific Revolution.

In 1687, he published his most acclaimed work, Philosophiae Naturalis Principia Mathematica (Mathematical Principles of Natural Philosophy), which has been called the single most influential book on physics. In 1705, he was knighted by Queen Anne of England, making him Sir Isaac Newton.

Newton was born on January 4, 1643, in Woolsthorpe, Lincolnshire, England. Using the "old" Julian calendar, Newton's birth date is sometimes displayed as December 25, 1642. Newton was the only son of a prosperous local farmer, also named Isaac, who died three months before he was born. A premature baby born tiny and weak, Newton was not expected to survive.

Newton was enrolled at the King's School in Grantham, a town in Lincolnshire, where he lodged with a local apothecary and was introduced to the fascinating world of chemistry. His mother pulled him out of school at age 12. Her plan was to make him a farmer and have him tend the farm. Newton failed miserably, as he found farming monotonous. Newton was soon sent back to King's School to finish his basic education.

Perhaps sensing the young man's innate intellectual abilities, his uncle, a graduate of the University of Cambridge's Trinity College, persuaded Newton's mother to have him enter the university. Newton enrolled in a program similar to a work-

study in 1661, and subsequently waited on tables and took care of wealthier students' rooms.

When Newton arrived at Cambridge, the Scientific Revolution of the 17th century was already in full force. During his first three years at Cambridge, Newton was taught the standard curriculum but was fascinated with the more advanced science. All his spare time was spent reading from the modern philosophers. Though Newton graduated without honors or distinctions, his efforts won him the title of scholar and four years of financial support for future education.

Newton made discoveries in optics, motion and mathematics. Newton theorized that white light was a composite of all colors of the spectrum, and that light was composed of particles.

His momentous book on physics, Principia, contains information on nearly all of the essential concepts of physics except energy, ultimately helping him to explain the laws of motion and the theory of gravity.

Newton's first major public scientific achievement was designing and constructing a reflecting telescope in 1668. As a professor at Cambridge, Newton was required to deliver an annual course of lectures and chose optics as his initial topic. He used his telescope to study optics and help prove his theory of light and color. The Royal Society asked for a demonstration of his reflecting telescope in 1671, and the organization's interest encouraged Newton to publish his notes on light, optics and color in 1672.