

**SOLUTIONS ELEMENTARY 5**

**CULTURE 7:**

**BRITISH**

**SCIENTISTS**

**PEGAH BAHOJB GHASEMI**





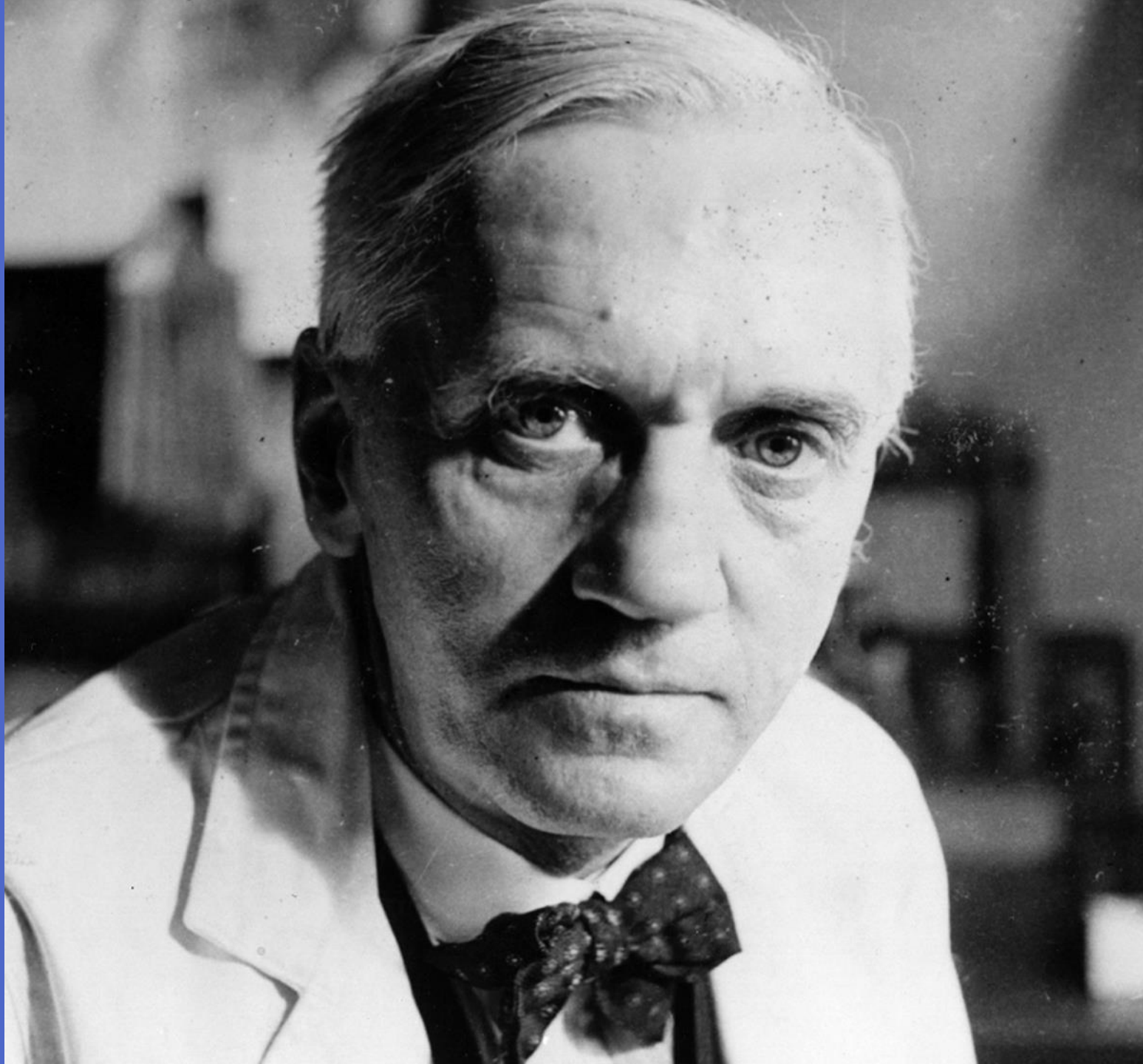
ALAN TURING



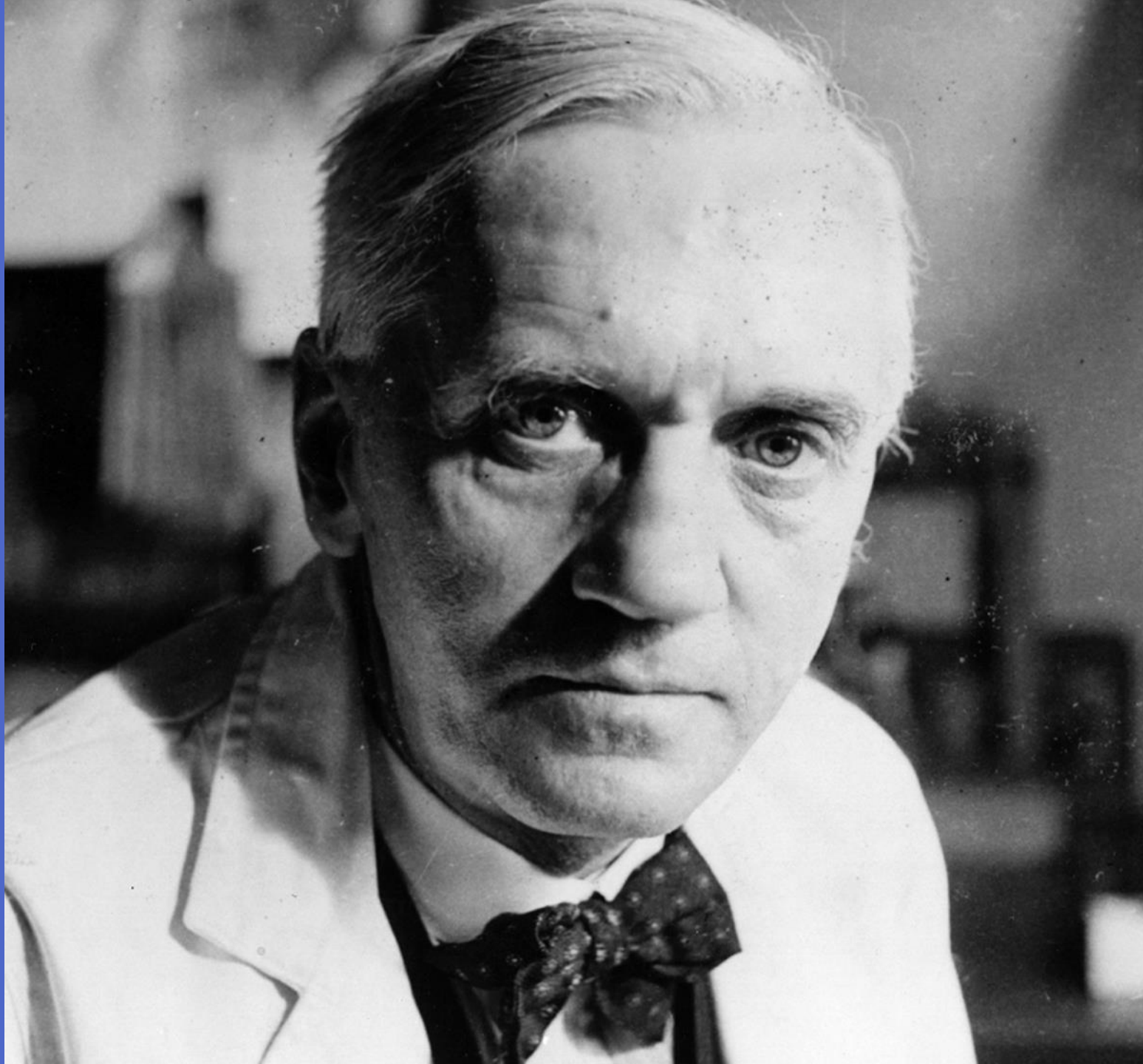
## ALAN TURING

The father of  
theoretical computer  
science and artificial  
intelligence.





ALEXANDER  
FLEMING



ALEXANDER  
FLEMING

The biologist and  
pharmacologist  
who discovered  
penicillin.





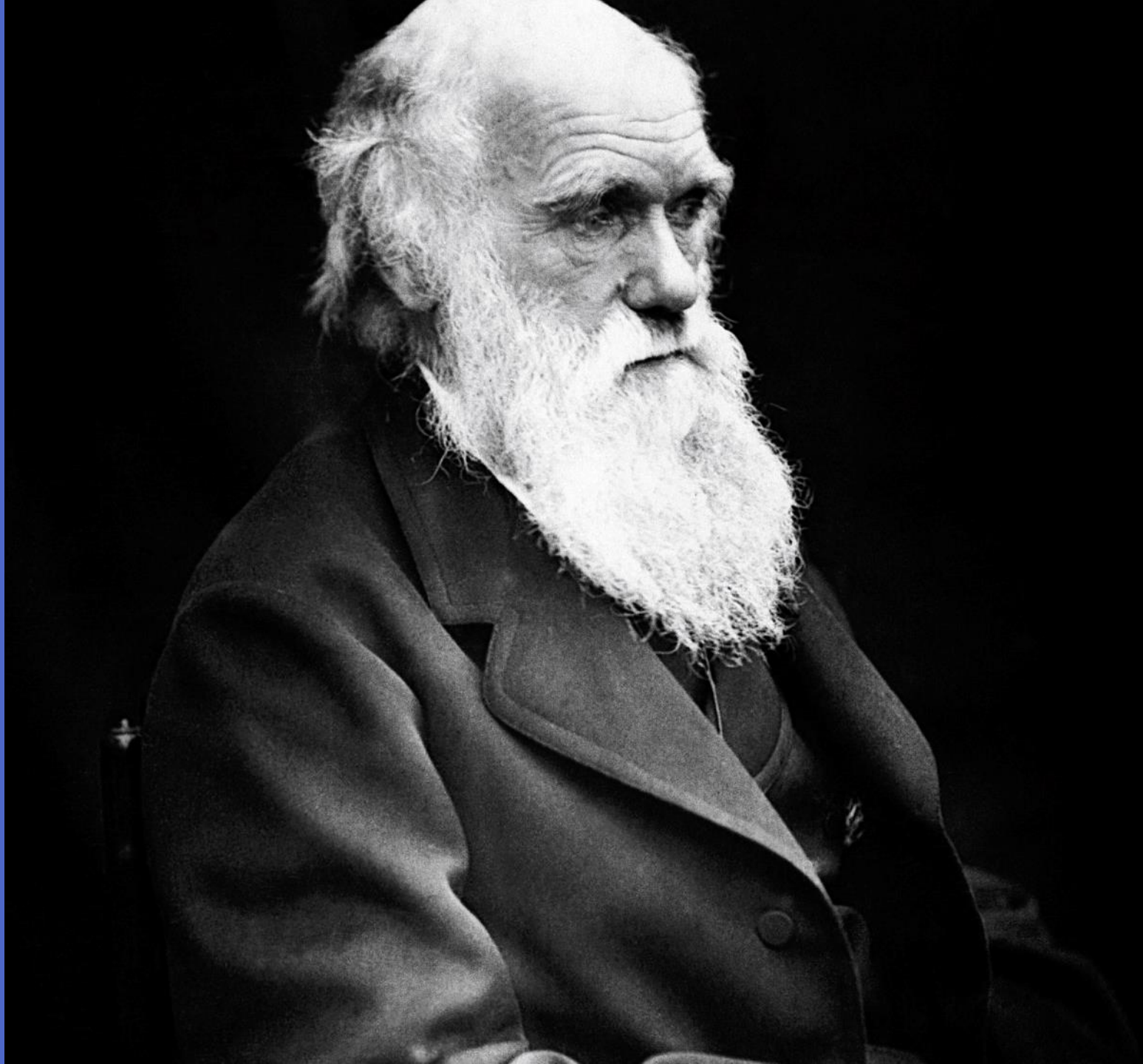


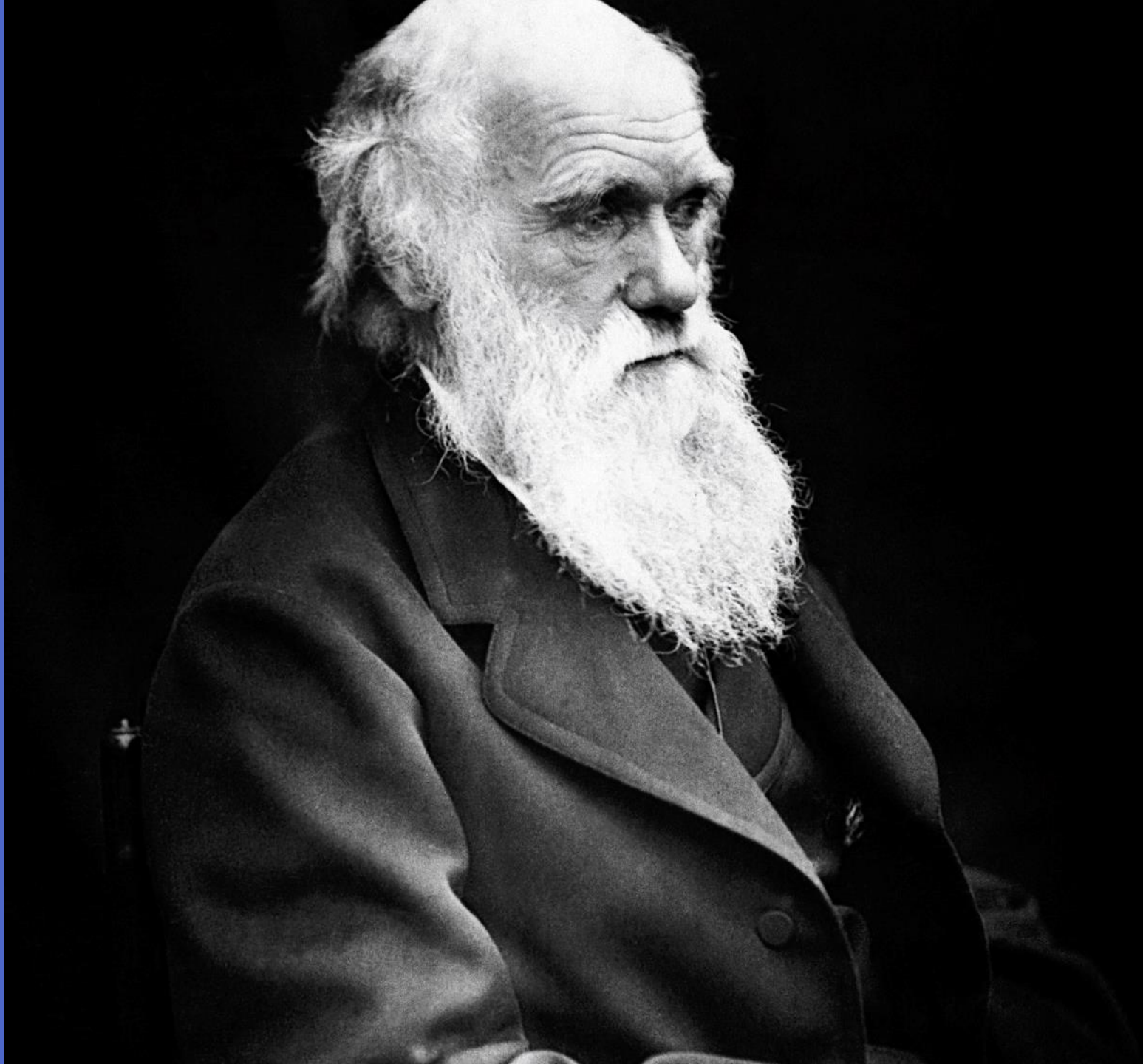
**ALEXANDER  
GRAHAM BELL**



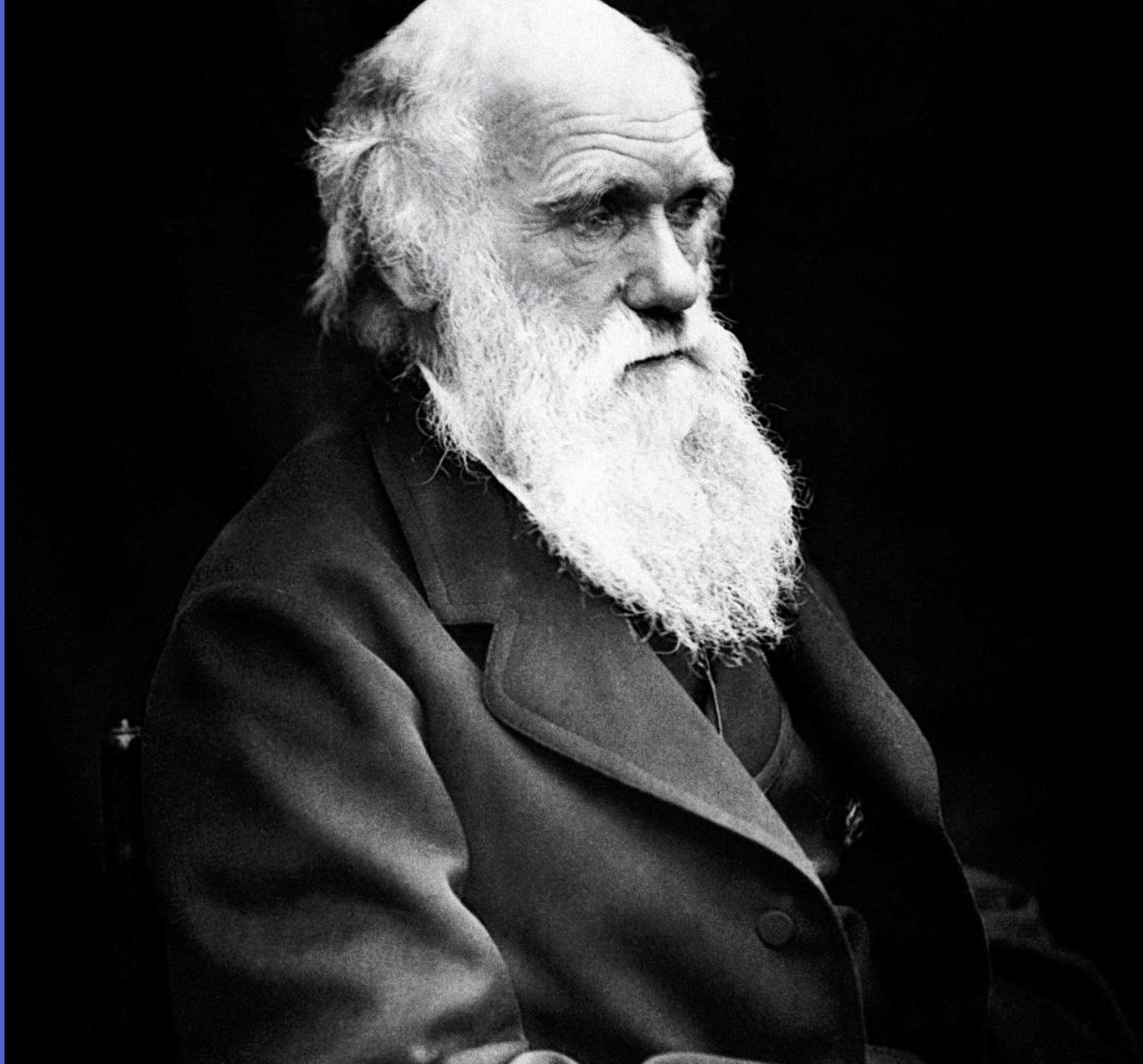
ALEXANDER  
GRAHAM BELL

The inventor of  
the telephone.





CHARLES DARWIN



## CHARLES DARWIN

The naturalists and biologists who proposed the theory of evolution through natural selection.





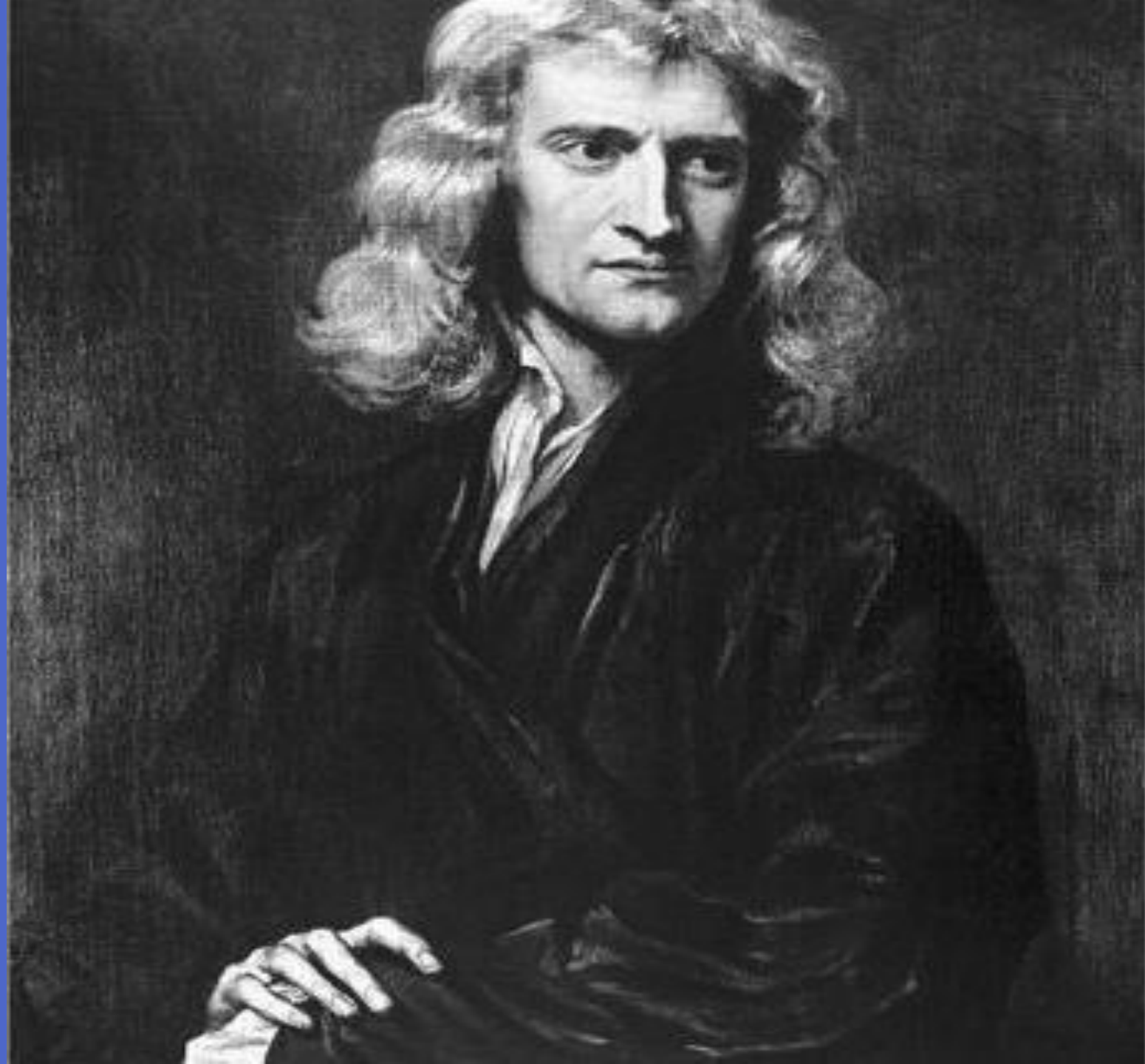
**STEPHEN  
HAWKING**

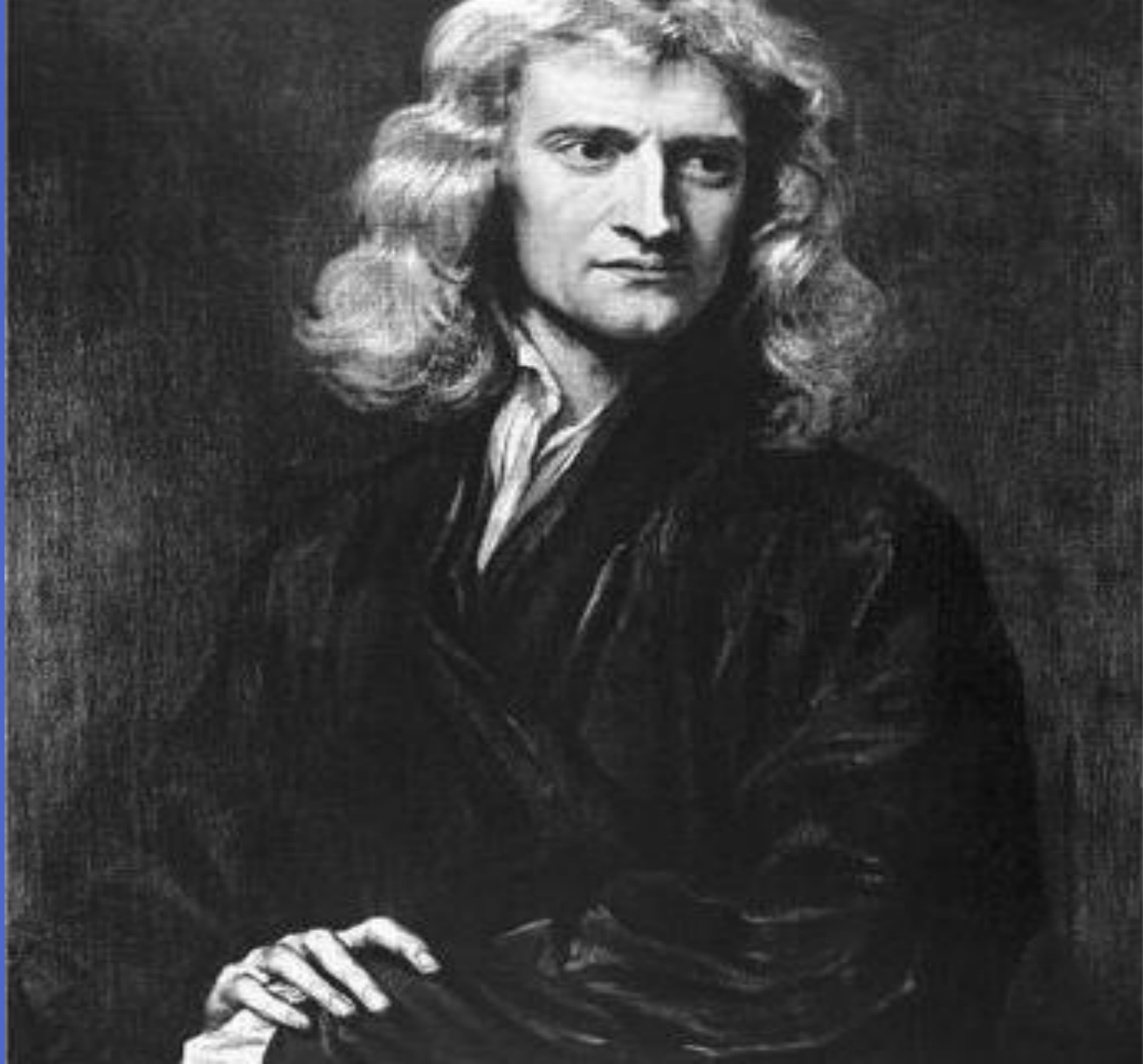


STEPHEN  
HAWKING

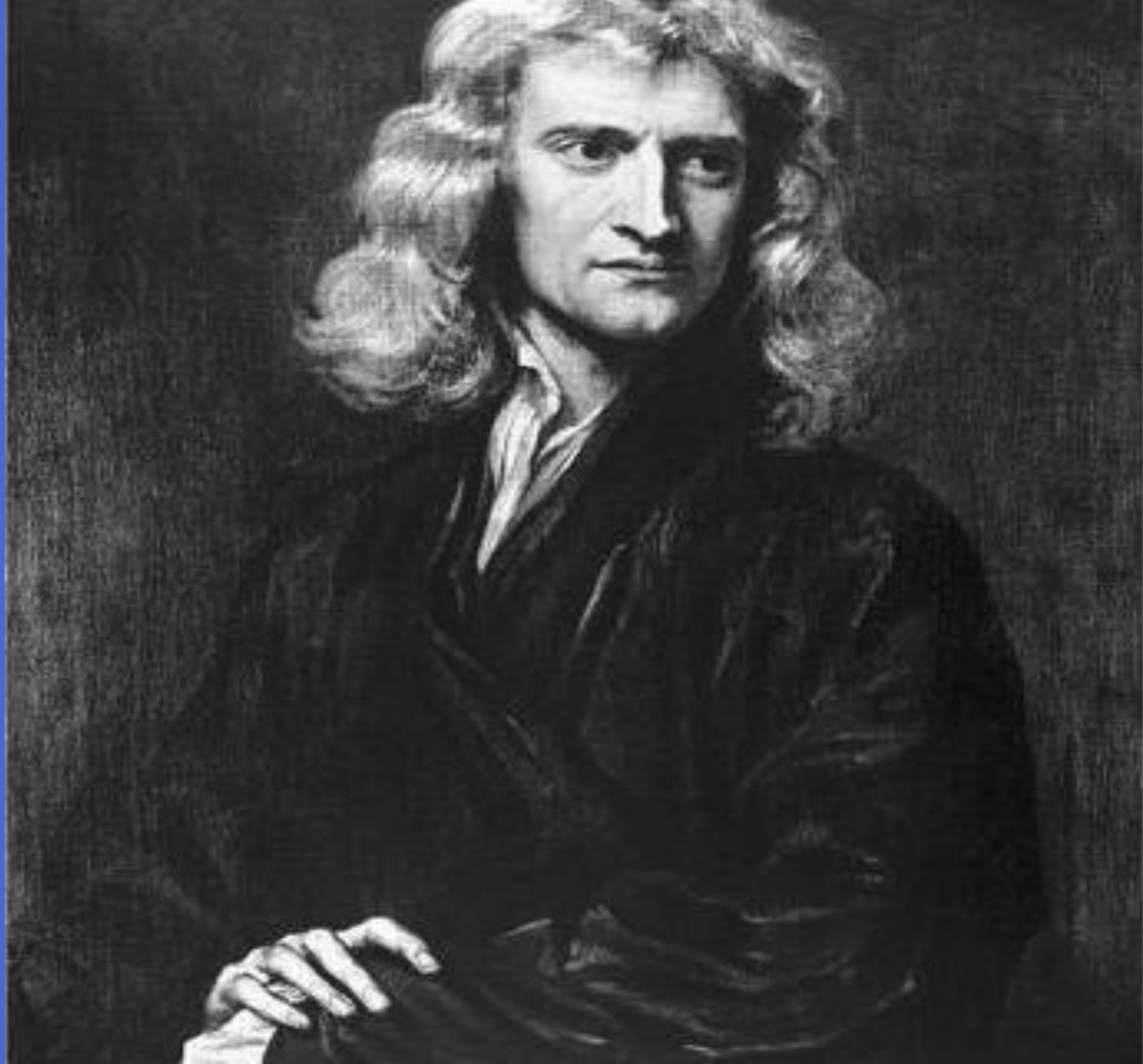
Physicist







**SIR ISAAC  
NEWTON**



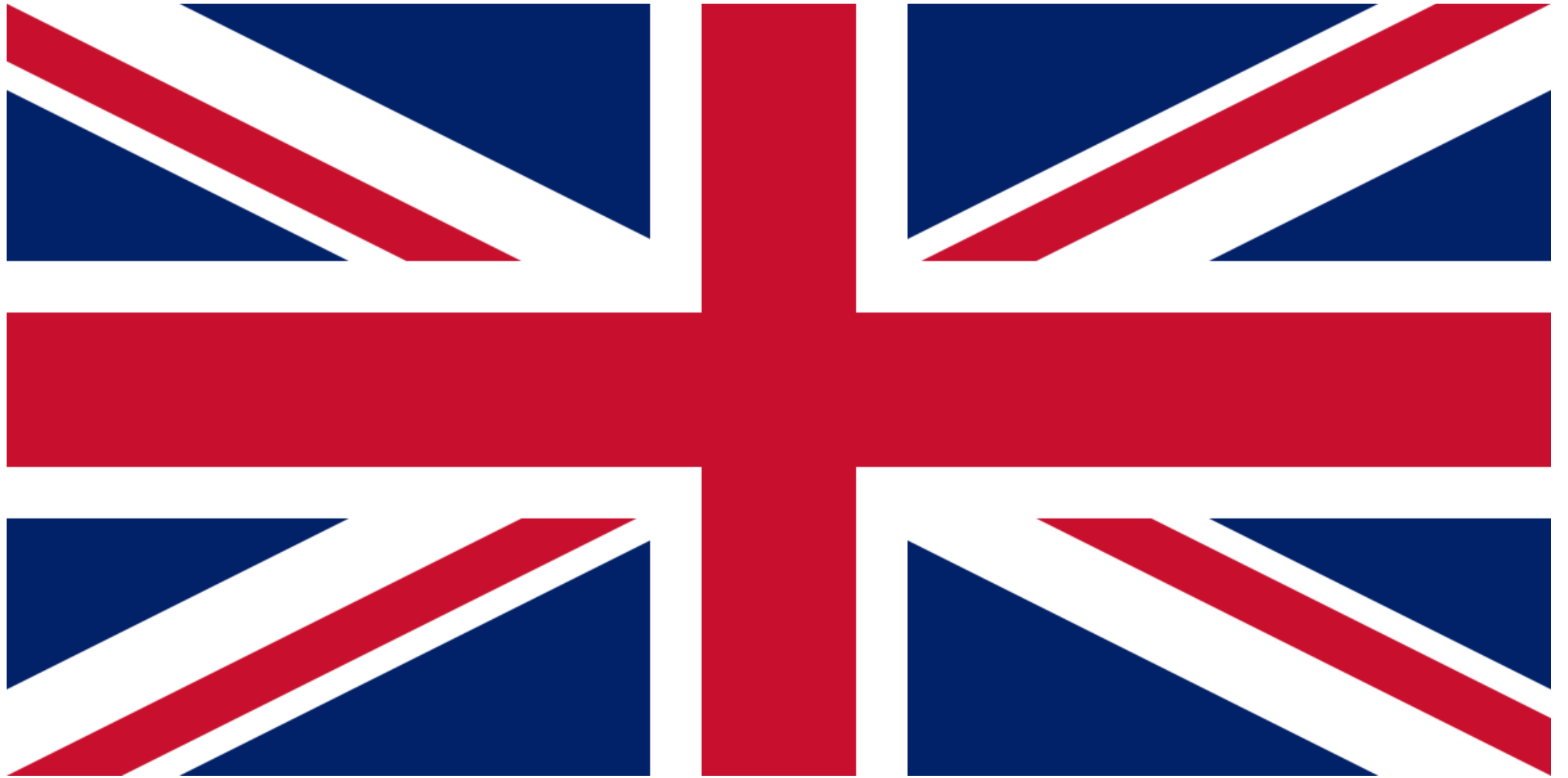
SIR ISAAC  
NEWTON

Physicist and  
mathematician



**WHERE ARE  
THEY FROM?**

# WHERE ARE THEY FROM?



- 1 **SPEAKING** Work in pairs. Discuss these questions. How many famous scientists from your country can you name? Why are they famous?

He / she discovered / invented ...







# PLAGUE



2 Read the text about Isaac Newton. Complete the timeline of Isaac Newton's life.

1642	Newton was born on 25 December. He lived with his <sup>1</sup> _____ from an early age.
1654	He started to go to <sup>2</sup> _____.
<sup>3</sup> _____	He started to study at Cambridge University.
1665 –	The University of Cambridge closed. Newton
<sup>4</sup> _____	returned <sup>5</sup> _____.
1669	He became Professor of <sup>6</sup> _____ at Cambridge.
<sup>7</sup> _____	He published his book, <i>Principia Mathematica</i> .
<sup>8</sup> _____	Newton died



**4.26** ISAAC NEWTON was born on Christmas Day in 1642. Newton's father died before he was born. His mother got married again, and Newton lived with his grandmother. At the age of twelve, he started school and seven years later, in 1661, he went to Cambridge University. There he began to study light and colour. He invented a new type of telescope and was the first person to discover that white light is a mixture of all the colours. After four years at Cambridge, the plague arrived in Britain. The plague was a terrible illness that killed thousands of people. The university closed and Newton returned home. While he was at home he continued to think and to work. One day, he was sitting under an apple tree in his garden, and an apple fell on his head. Newton said that is how he discovered gravity. It's certainly a good story, but we aren't sure if it is true! He returned to Cambridge in 1667 and two years later he became a Professor of Mathematics. Starting in 1684, Newton wrote his greatest work: *Principia Mathematica*, which he published in 1687. Isaac Newton died in October 1727, at the age of 84. His work is still important, nearly 300 years after his death.

### 3 Find the past tenses of these verbs in the text.

1 be \_\_\_\_\_

2 get \_\_\_\_\_

3 go \_\_\_\_\_

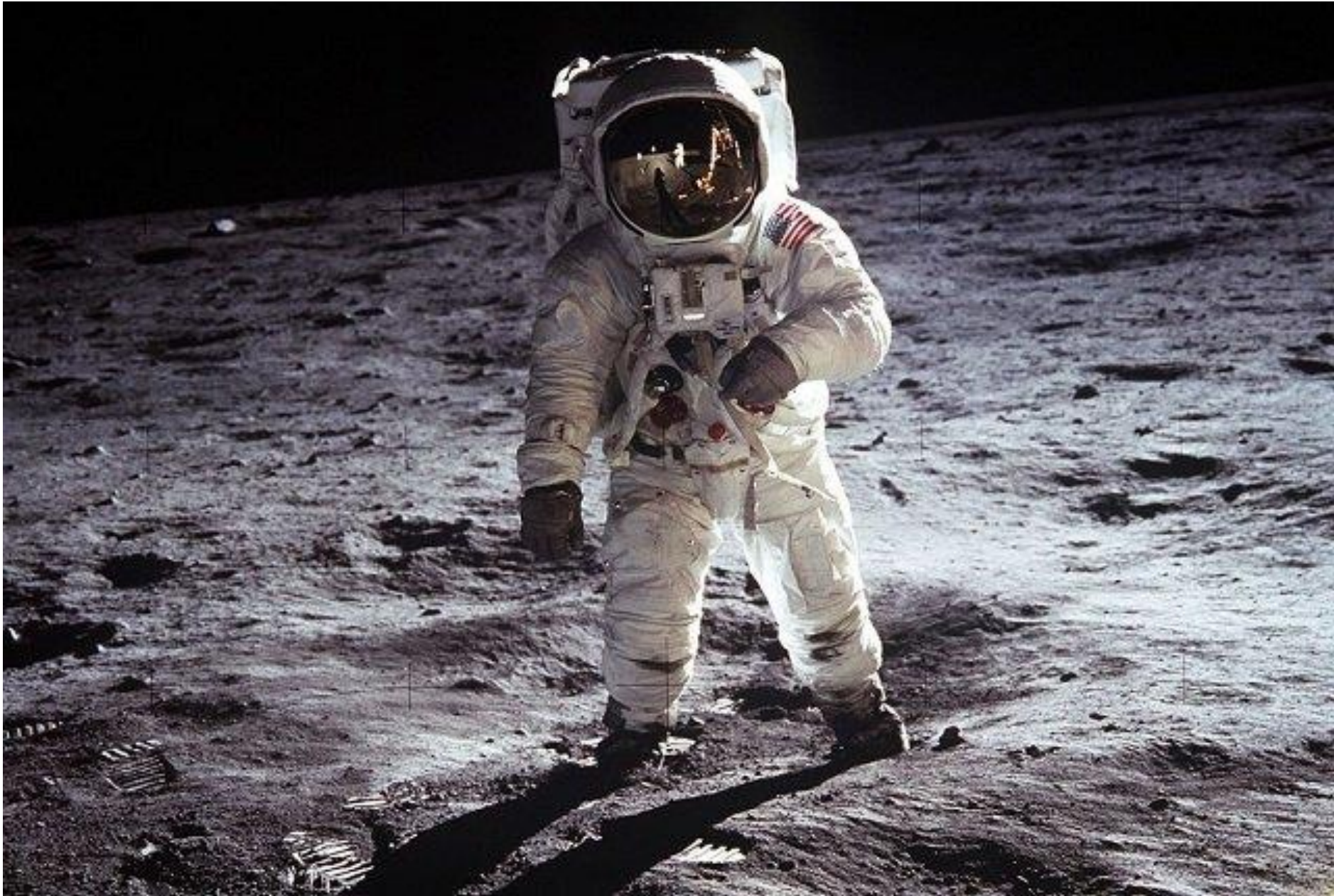
4 begin \_\_\_\_\_

5 fall \_\_\_\_\_

6 say \_\_\_\_\_

7 become \_\_\_\_\_

8 write \_\_\_\_\_








COMET



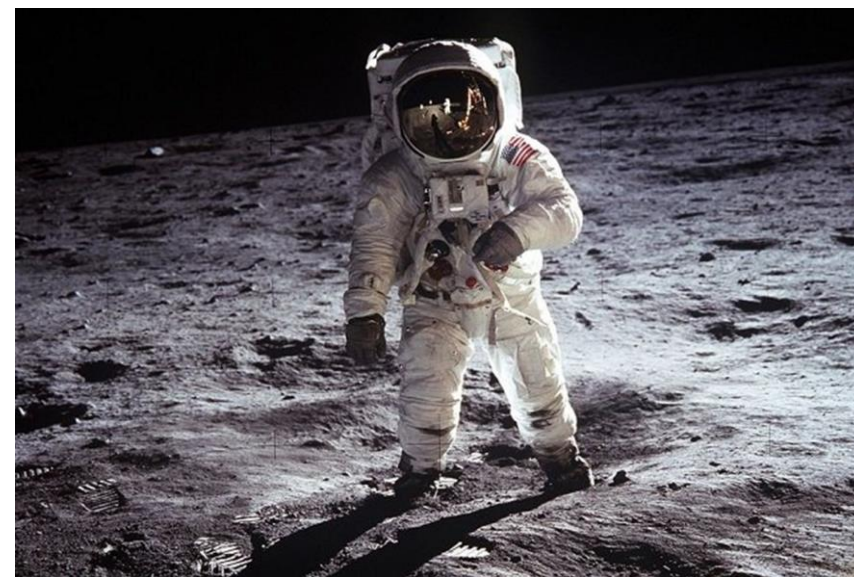
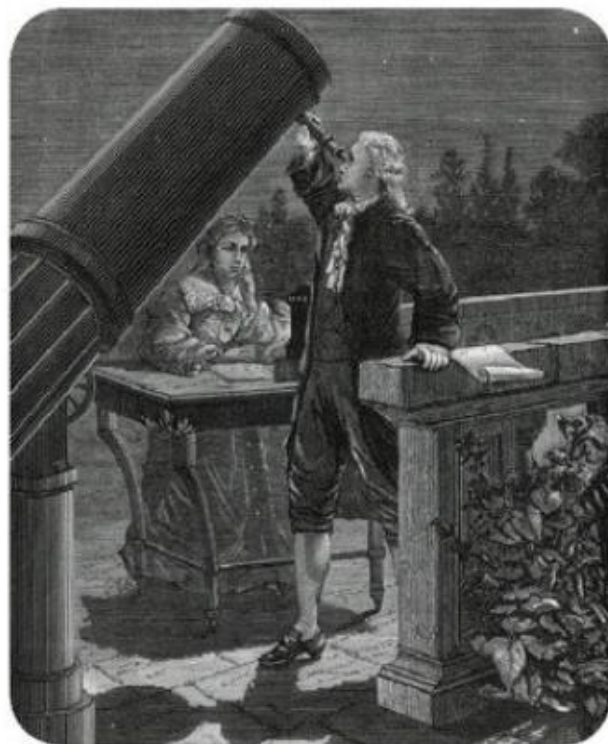



NEBULAE



4  4.27 Listen to an interview about the astronomer Caroline Herschel. Choose the best summary.

- 1 She was German but mostly lived in Britain. She built telescopes and discovered planets with her brother, who was her assistant.
- 2 Born in Germany, she worked as assistant to her more famous brother. However, she was responsible for some important discoveries.
- 3 She worked as assistant to her brother. They spent most of their lives in Germany and together discovered comets, nebulae and the planet Uranus.



5  **4.27** Listen again. Answer the questions.

- 1 How much younger than William was Caroline?
- 2 What did Caroline do for William before she became his assistant?
- 3 How many comets and nebulae did she discover?
- 4 What did she successfully calculate?
- 5 How old was she when she died?

- 6 **SPEAKING** Work in pairs. Decide on your top three discoveries and inventions. Choose from the list below or use your own ideas.

aeroplanes cars computers DNA electricity evolution  
gravity the internet microscopes nuclear power  
penicillin printing the telephone telescopes  
television the wheel writing X-rays

I think the invention /  
discovery of ... is the most  
important because ...

... is more important  
because ...

- 7 **SPEAKING** Work in pairs. Tell the class about your choices from exercise 6.

Our first / second / third choice is ...  
We chose it because ...

# DO YOU REMEMBER JOSEPH LISTER?



**ASSIGNMENT:**

**E8**

**SUMMARY OF READING**

**DEADLINE: SUNDAY**