

Science has no borders

LEARNING OUTCOMES

- I can learn about multiple discoveries around the world and use what I learn to make connections with my own culture.
- I can discuss multiple discoveries in my own culture and understand my own cultural identity.
- I can make comparisons between cultures and use my own beliefs and values to improve my cultural knowledge.

VOCABULARY FOCUS

culminate [v]: to happen as the final result of something

hole up [v]: to stay in one place

linen [n]: cloth made from flax

make headway [phr]: to make progress

rag [n]: old cloth

WARMER

As a class, brainstorm a list of the most important inventions in the world. Have a general discussion about why they were invented, and why they were invented at that particular time. Discuss whether any of the inventions were invented in different countries by different people.

- 1** Ask students to look at the pictures and discuss what they might have in common. Elicit answers from students in open class when they finish.

Answer

They were all discovered/invented by several different people.

- 2a** Ask students to read through the text quickly and decide with their partner what is meant by 'multiple discoveries'.

Answer

The idea that something can be invented/discovered independently by different people at roughly the same time.

- 2b** Ask students to read the text again, decide if the statements are true or false and correct the false sentences. Have students work alone before checking their answers with a partner. Finally, check answers as a class.

Answers

1 F (They make discoveries that are built upon other people's knowledge.) **2** T **3** T **4** T **5** F (They came at it from a different angle but both came up with the idea of calculus.) **6** T

- 2c** Ask students to read the questions and decide which is the correct alternative. Elicit answers from the class.

Answers

1 b **2** b **3** a **4** b **5** a

Gateway to culture

- 3a** Put students in pairs to discuss the quotes about science. Then elicit ideas from the class.

Answers

Students' own answers.

PROJECT

- 3b** Explain to students that they are going to work in groups to prepare a presentation. They will need Internet access to do their research, and this can either be done in class or at home. Put students into groups of three or four for this activity.

For Step 1, students work with their group to brainstorm discoveries or inventions with multiple inventors. In Step 2, ask students to choose one and follow the points for their Internet research to prepare information for their presentation. If working at home, each group member can do some individual research and then share their ideas and findings with their group in the next class.

- 3c** Once they have gathered the necessary information, students prepare their presentation in class in groups. Allow students to choose how they would like to present their findings. Allow sufficient time for preparation before each group presents their ideas to the class. Encourage them to suggest why the invention came about in more than one place at the same time.