Evidence Changes Minds

Trace how new discoveries changed knowledge and society.

WH.5.1 "Explain the key developments of the Scientific Revolution and its impact on the world."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline three developments that changed how people studied the world. Number each development and circle a result or impact linked to it.

A New Way to Understand the World

1. In 1543, Nicolaus Copernicus published a model placing the Sun, not Earth, at the center of the planetary system. His model challenged a long-accepted Earth-centered view, but it did not settle the debate. In the early 1600s, Galileo Galilei used a telescope to observe moons orbiting Jupiter and the phases of Venus. These sights showed that not everything circled Earth and supported a Sun-centered model. Galileo's findings also brought him into conflict with Catholic Church authorities, who defended established teachings.

2. Johannes Kepler used careful observations of planets to show that their paths around the Sun are ellipses, not perfect circles. Later, Isaac Newton described laws of motion and universal gravitation that explained why planets follow such paths. Mathematics now connected events in the sky with the motion of objects on Earth. Instead of relying only on ancient authorities, investigators increasingly compared explanations with measurements. An idea about the heavens could be revised when new observations did not fit it.

3. This shift did not happen overnight or involve every person equally. New instruments, learned societies, and printed journals helped investigators share results so others could check their work. Scientific methods spread beyond astronomy: William Harvey used dissection and observation to describe how the heart pumps blood through the body. Over time, testing claims with evidence influenced medicine and technology and encouraged some thinkers to question inherited ideas about society and government. Yet disputes over authority continued, as Galileo's case showed.

2 ANSWER WITH EVIDENCE

Use the passage

1. How did Galileo's observations challenge the Earth-centered view?

2. How did Newton's work build on Kepler's finding?

3. Why did journals and learned societies matter to the new approach to science?

4. How did the Scientific Revolution reach beyond astronomy and affect the wider world?

3 YOUR TURN

Your own words

Write a five-sentence museum label for visitors. Connect two developments from the passage to a change in how people judged claims, then explain one benefit and one source of conflict.

ANSWER KEY

Evidence Changes Minds

PART 1 · READ AND MARK

Underline three developments that changed how people studied the world. Number each development and circle a result or impact linked to it. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	How did Galileo's observations challenge the Earth-centered view?	**Moons orbiting Jupiter showed that not everything circled Earth. The phases of Venus supported a Sun-centered model.**
2	How did Newton's work build on Kepler's finding?	**Kepler showed that planets follow elliptical paths. Newton's laws of motion and gravitation helped explain why.**
3	Why did journals and learned societies matter to the new approach to science?	**They let investigators share results so others could check their work.**
4	How did the Scientific Revolution reach beyond astronomy and affect the wider world?	**Harvey used observation and dissection to study blood circulation. Evidence-based methods later influenced medicine and technology and encouraged some thinkers to question inherited ideas about society and government.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

For centuries, many people accepted that Earth stood at the center of the planetary system. Galileo's telescope observations gave them evidence that challenged this belief. Kepler's use of careful measurements showed that even familiar ideas about planetary paths could be revised. Checking claims against observations helped people build more accurate explanations of the natural world. It could also cause conflict when new findings challenged authorities who defended established teachings.

Accept other accurate links between developments and impacts stated in the passage. For the museum label, look for two distinct developments, a change in judging claims, a benefit, and a conflict.