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Short Answer

Type Answer Here

1. Where did the
Scientific Revolution
start?

2. What is Kepler's
first name?

3. What science is
the study of living
things?

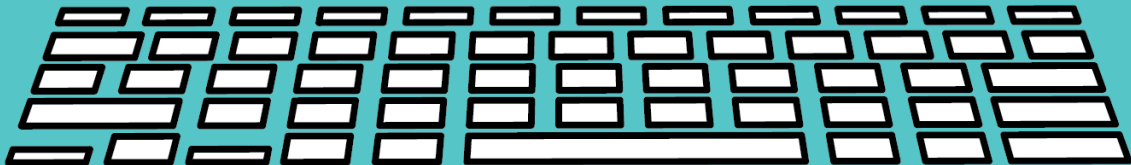
4. What year did
Bacon discover the
scientific method?

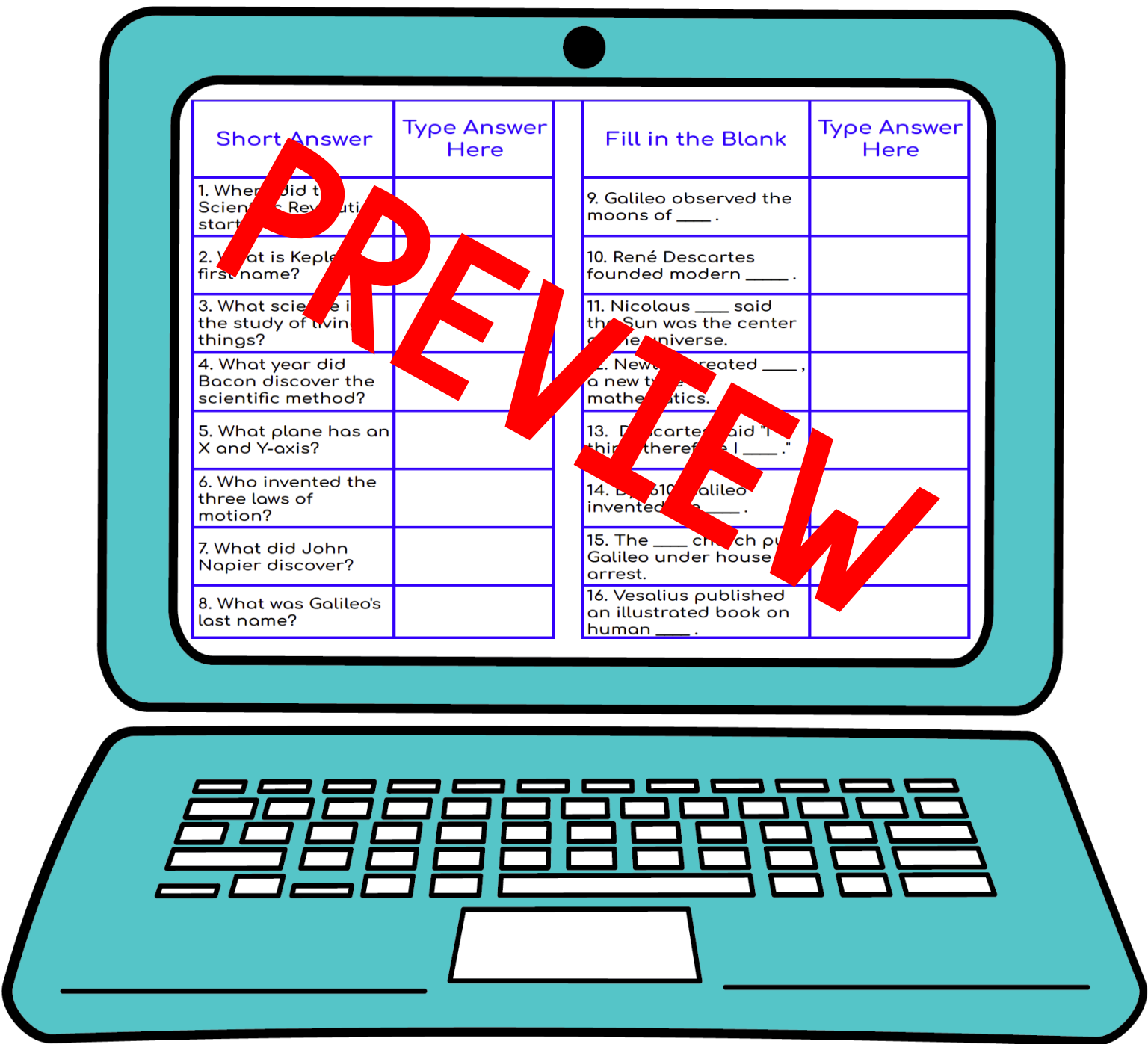
5. What plane has an
X and Y-axis?

6. Who invented the
three laws of
motion?

7. What did John
Napier discover?

8. What was Galileo's
last name?





Short Answer	Type Answer Here	Fill in the Blank	Type Answer Here
1. When did the Scientific Revolution start?		9. Galileo observed the moons of ____.	
2. What is Kepler's first name?		10. René Descartes founded modern ____.	
3. What science is the study of living things?		11. Nicolaus ____ said the Sun was the center of the universe.	
4. What year did Bacon discover the scientific method?		12. Newton created ____, a new type of mathematics.	
5. What plane has an X and Y-axis?		13. Descartes said "I think, therefore I ____."	
6. Who invented the three laws of motion?		14. In 1610, Galileo invented the ____.	
7. What did John Napier discover?		15. The ____ church put Galileo under house arrest.	
8. What was Galileo's last name?		16. Vesalius published an illustrated book on human ____.	

SCIENTIFIC REVOLUTION

The Scientific Revolution happened in Europe in the 1500s and 1600s (16th and 17th centuries). The Scientific Revolution wasn't a battle or war like its name implies. Instead, it was a time of discovery, advancement in technology, science, and math. People wanted to understand the world around them.

Nicolaus Copernicus was one of the earliest significant people in the advancement of science. In 1543, the Polish astronomer couldn't accept that the Earth was the center of everything. Instead, he suggested that the Sun was the center of the universe, and Earth and the planets orbited around the Sun. Johannes Kepler agreed with Nicolaus Copernicus' theory. In 1609, he developed the telescope that explained how the planets move around the Sun. Around this time, Andreas Vesalius published an illustrated book on human anatomy.

By 1610, Galileo Galilei invented a telescope. This device helped him see that the Moon wasn't smooth. He also discovered that the light reflected from the Sun. He observed the moons of Jupiter and the phases of Venus, among other things. Galileo confirmed Copernicus' theory about the Sun being the center of the universe. He wrote his famous work explaining his findings. Unfortunately, the Catholic Church put him under house arrest because they disagreed. Galileo also explored the ideas of acceleration, deceleration, friction, and inertia. Albert Einstein once called Galileo "The Father of Modern Science."

Francis Bacon discovered the scientific method in 1620. Prior to this, scientists made up theories and then fit the theories to the results. However, Bacon established a series of steps to create the scientific method: ask questions, a hypothesis (educated guess), test the theory, and record observations.

In 1637, René Descartes founded modern philosophy. His famous quote was, "I think, therefore I am." In 1665, Robert Hooke used a microscope to study tiny matter and organisms. He developed the

word "cell."

Isaac Newton was a scientist, mathematician, and astronomer who invented the three laws of motion in 1687. These laws are the foundations of physics. He also identified the law of gravity and made some discoveries with optics (light). He created fluxions, a new type of mathematics. Today, it is called calculus. In 1688 he created the reflecting telescope.

Another discovery during the Scientific Revolution was the printing press by Johannes Gutenberg in the 1450s. Other inventions included eyeglasses, a clock, cannons, muskets, a flushing toilet, a wrench, a screwdriver, wallpaper, and the submarine.

Scholars made significant advancements in numerous fields. For instance, physics is the study of the motion and behavior of matter. Johannes Kepler made progress in the field of physics. He established Kepler's laws which detail the motion of the planets.

Mathematics uses numbers and equations to analyze data. John Napier and René Descartes took math to the next level. Napier discovered logarithms, which helped solve calculations of larger numbers more quickly. This led directly to algebra and geometry. Descartes developed the Cartesian plane with an X and Y-axis.

Chemistry is the study of matter. Robert Boyle is "The Father of Chemistry." First, he studied alchemy - changing materials into more valuable materials. He analyzed the relationship between pressure and volume. He discovered Boyle's law which states that lower pressure equals a higher volume of gas and vice versa.

Biology is the study of living things. Antony Van Leeuwenhoek improved the microscope, allowing him to see bacteria and single-celled organisms. This was the beginning of microbiology. Andreas Vesalius worked with corpses and was able to see the issues. William Harvey identified that the heart pumped blood and that the blood circulated throughout the body.

Many of these discoveries challenged the long-held beliefs of the time. Yet, these discoveries paved the way for modern studies.

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