

name: _____

class: _____

date: _____

How Optics Changed Science Forever



In the 17th century, scientists began to understand _____ in ways that would forever change the world. Before this time, people had many misconceptions about how _____ worked and how light behaved. One of the key figures in this transformation was _____, who conducted experiments that would lead to a deeper understanding of optics. Newton discovered that white light is made up of _____, which can be separated by a prism. Another important scientist, _____, used the newly invented telescope to observe the _____ of Jupiter, proving that not everything orbited the Earth. This discovery was crucial in supporting the _____ model of the solar system, where the Earth and other planets orbit the _____. Optics also played a significant role in the development of the _____, allowing _____ like van Leeuwenhoek to observe bacteria and other microorganisms for the first _____. These advancements in understanding light and vision laid the groundwork for the Scientific _____, a period of great change in how people viewed the natural world. The study of optics showed that the _____ was far more complex and wonderful than previously thought, pushing humanity towards the modern _____ method of inquiry. This method emphasizes observation, _____, and the questioning of traditional beliefs, _____ that continue to guide scientific research today. The impact of _____ on the Scientific Revolution demonstrates how a single field of study can revolutionize our understanding of the _____.

colors	Galileo	universe	microscope	time	heliocentric	Revolution	optics
scientists	moons	light	sun	scientific	Isaac Newton	experimentation	
vision	principles	universe					