The period between 1300 and 1600 was a time of great change in Europe that became know as the Renaissance, a rebirth of learning and the arts. It inspired a spirit of curiosity in many fields, causing scholars to begin to question ideas that had been accepted for hundreds of years. Meanwhile, the religious movement known as the Reformation prompted followers to challenge accepted ways of thinking about God and salvation. While the Reformation was taking place, another revolution in European thought had begun, one that would permanently change how people viewed the physical world.

Before 1500, scholars generally decided what was true or false by referring to either an ancient Greek or Roman author or to the Bible. Few European scholars challenged the scientific ideas of the ancient thinkers or the Church by carefully observing nature for themselves.

During the Middle Ages, most scholars believed that the earth was an immovable object located at the center of the universe. According to that belief, the moon, the sun, and the planets all moved in perfectly circular paths around the earth. Common sense seemed to support this view. After all, the sun appeared to be moving around the earth as it rose in the morning and set in the evening. This earth-centered view of the universe was called the **geocentric theory**. The idea came from Aristotle, the Greek philosopher of the fourth century B.C. The Greek astronomer Ptolemy expanded the theory in the second century A.D. In addition, Christianity taught that God had deliberately placed the earth at the center of the universe. Earth was thus a special place on which the great drama of life unfolded.

Beginning in the mid-1500s, a few scholars published works that challenged the ideas of the ancient thinkers and the church. As these scholars replaced old assumptions with new theories, they launched a change in European thought that historians call the Scientific Revolution. The Scientific Revolution was a new way of thinking about the natural world, based upon careful observation and a willingness to question accepted beliefs.

A combination of discoveries and circumstances led to the Scientific Revolution and helped spread its impact. European explorers traveled to Africa, Asia, and the Americas, lands inhabited by peoples and animals previously unknown in Europe. These discoveries opened Europeans to the possibility that there were new truths to be found. The invention of the printing press helped spread challenging ideas - both old and new - more widely among Europe’s thinkers. The age of European exploration also fueled a great deal of scientific research, especially in astronomy and mathematics. Navigators needed better instruments and geographic measurements to, among other things, determine their location in the open sea. As scientists began to look more closely at the world around them, they made observations that did not match the ancient beliefs. They found they had reached the limit of the classical world’s knowledge. Yet, they still needed to know more.