

**Reading Check**  
**Compare**  
How are the  
microscope and the  
telescope similar?

These instruments—the microscope, the thermometer, the telescope, and the barometer—are very common today. In fact, you have probably used at least one of them yourself. But when they were invented, they were dramatic advances in technology. They gave scientists the tools they needed to make more accurate observations of the world and to conduct experiments. They were the tools of the Scientific Revolution.

**Summary and Preview** The work of Copernicus, Brahe, Kepler, Galileo, and Newton was central to the Scientific Revolution. In the next lesson, you will learn more about the effects of these scientists' accomplishments on society then and now.

**Academic**  
**Vocabulary**  
procedure a series  
of steps taken to  
accomplish a task

**The Scientific Method** Today scientists use a procedure called the scientific method when doing their research. The **scientific method** is a step-by-step method for performing experiments and other scientific research.

The scientific method combines Bacon's idea of a systematic scientific process, Descartes's insistence on proof and clear reasoning, and the work of other scientists. Using the scientific method, scientists have learned more about the universe in the few hundred years since the Scientific Revolution than in all of the thousands of years that came before. Because of this, the basics of the scientific method—observation and experimentation—are considered the main principles of modern science.

**Academic**  
**Vocabulary**  
principles basic  
beliefs, rules, or laws