



## Why is Astronomy Important?

Astronomy is the study of the Moon, stars, and other objects in space. It is important because it helps you understand how the Earth system works within the Solar System and beyond. It is an amazing science because it explores space from its tiny specks of dust to its huge clusters of stars. From the beginning, humans have been fascinated by the objects in the night sky. At first, it seemed like there was just the Moon and stars, but early astronomers began to notice other objects, too. They noticed comets and meteors (called “falling stars” by early observers) moving across the skies. They also discovered that the planets were brighter and moved differently from the stars. One of the most important advances in the history of astronomy was the invention of the telescope in the 1600s. A telescope could magnify the objects in the sky. The more complex telescopes became, the more discoveries astronomers were able to make. The planet Mars looked red. Saturn had rings around it, but why? The telescope created even more questions than it answered, but astronomers kept seeking the answers. Astronomy is important because it helps you understand the universe within which Earth exists.

## What Will You Investigate?

To help you understand more about the science of astronomy, you will be conducting research. Your research will include hands-on investigations. You will also make and study models. Here are some of the things you will investigate:

- what characteristics the planet Earth has
- where Earth is in our Solar System
- what other planets and objects are in the Solar System
- what the similarities and differences are between the planets
- the role of the Sun in the Solar System
- how the different parts of the Solar System relate to one another
- the objects outside our Solar System
- the life cycle of stars
- how people have studied the universe over time
- the latest theories about how our universe formed.



You will need to practice your problem-solving skills and become an accurate observer and recorder. You will also need to be creative in researching information about the universe.

In the last **Investigation** you will have a chance to apply all that you learned about Earth and space. You will create an exciting piece of communication on an astronomy topic you have learned about in this module.