

# GRADE 5 SCIENCE

## Earth & Space

### TRAVELING WITHOUT MOVING!

In this unit, your child will explore the Earth, Sun, Moon, and stars using observations of shadows and changing patterns in the sky. They will also explore the planets of our Solar System and begin to consider what might lie beyond.

We will learn that even though it looks like the Sun is moving across the sky every day, it is actually the Earth that is spinning (rotating) around its axis. We'll make models to help us understand how this movement is responsible for the Sun rising and setting every day. We'll also explore how the speed of the Earth's rotation affects the length of one full day.

You can support learning at home. The next time you're traveling by car or bus, you can point out that it doesn't feel like you're moving at all - even if you're traveling at really high speeds! This is the same reason that even though the Earth is spinning incredibly fast, it never feels like we're moving. Because the Earth is always spinning at a constant speed, we never feel it moving!



### SUNRISE, SUNSET

We'll explore how the Sun's path changes with the time of the year and gather observations about changes in sunrise and sunset as the seasons change. You can help your child collect observations each day and create a photo journal of sunrise and sunset. Google provides sunrise and sunset times simply by typing "sunrise" and "sunset" in Google. Many weather apps for smartphones (such as iPhone) also feature this information included with the day's forecast to help you plan when to take your photos.



Our solar system is just one small part of the known universe.

## TO THE MOON AND BEYOND!

We'll model how the Moon reflects the light of the Sun and experiment to figure out what causes the change in the Moon's appearance.

If you spot the Moon in the sky, point it out to your child. If you have binoculars, let your child use them to look at the Moon. The best time for moon-gazing is when the Moon is half-bright/half-dark. The line that divides the dark (night side) of the Moon from the bright (day side) of the Moon is called the terminator. Along the terminator, shadows make it easier to see craters and mountains. If you feel like comparing what you see to a map of the Moon, there's a great map of the most visible craters [here](#) and a map of the dark gray areas known as seas [here](#). If your child asks, the Moon's seas are dry flat plains created billions of years ago by flowing lava. But early astronomers thought these dark gray areas might be filled with water and called them seas or maria (Latin for seas), and the name stuck.



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## READERS' CORNER

Here are some book suggestions to learn more about our solar system and outer space that are available on [Scholastic Literacy Pro](#):

*Las estaciones, las mareas y las fases lunares (Seasons, Tides, and Lunar Phases)* by Tara Haelle

*The Ancient Maya* by Jackie Maloy (pages 32-33, Mayan calendar)

*Mayas* by Maria de Hoyo (Spanish, pages 24-27, Mayan calendar)