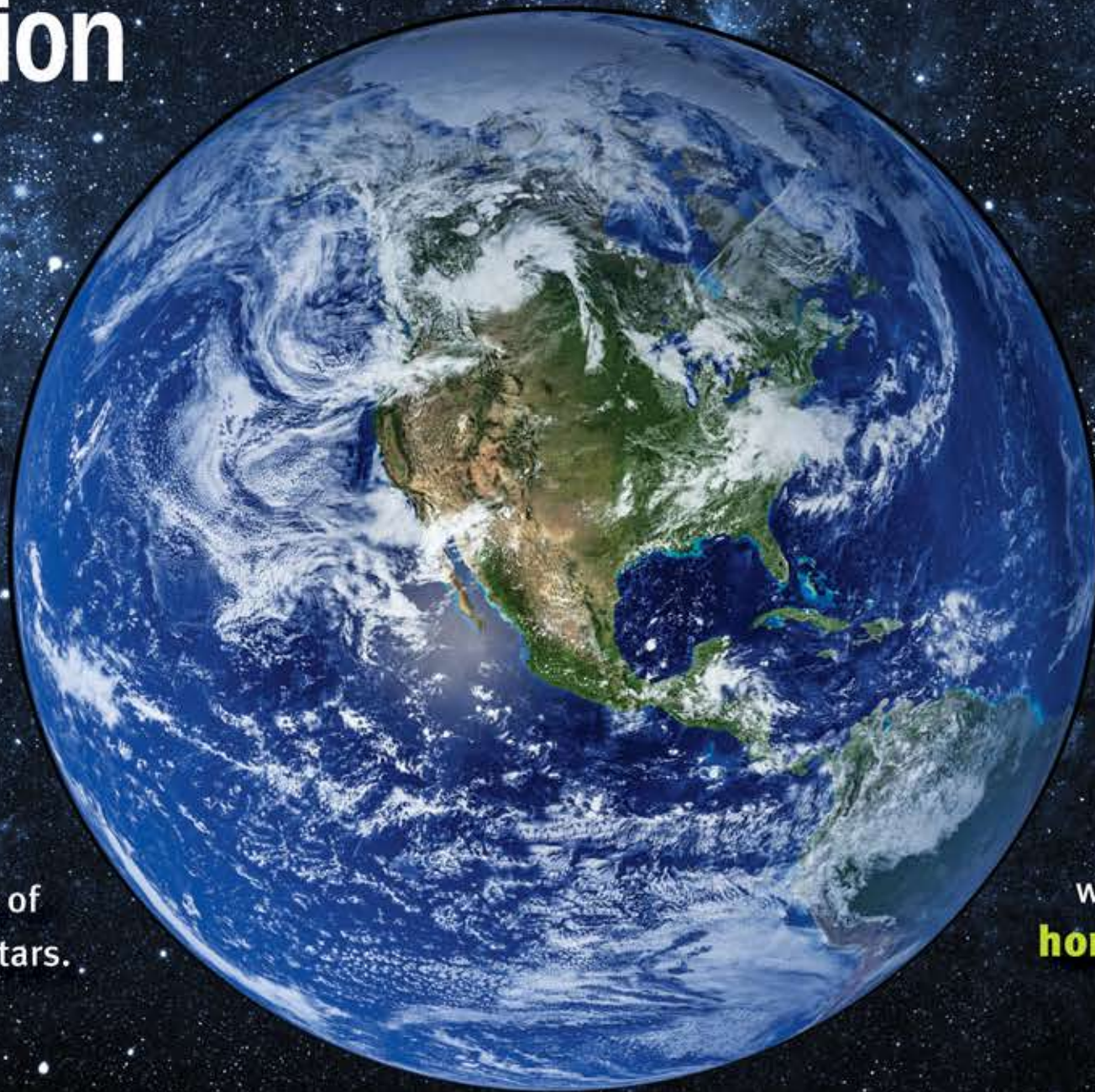


Introduction

Our Home Base in Space

The vast endless black of the universe holds **trillions and trillions of stars!**

Stars move together in systems called galaxies. One of the **two trillion galaxies** in the universe is ours, **the Milky Way**. Its spinning spiral is made up of gas, dust, and billions of stars.



Countless numbers of those stars are not alone: They belong to solar systems, with planets that move around them. Our own solar system has eight planets. **The third planet from the sun is very special to us.** It is covered with blue oceans, green continents, and white puffy clouds. **It is our home: planet Earth.**



The name "Earth"
means "the ground."

CHAPTER

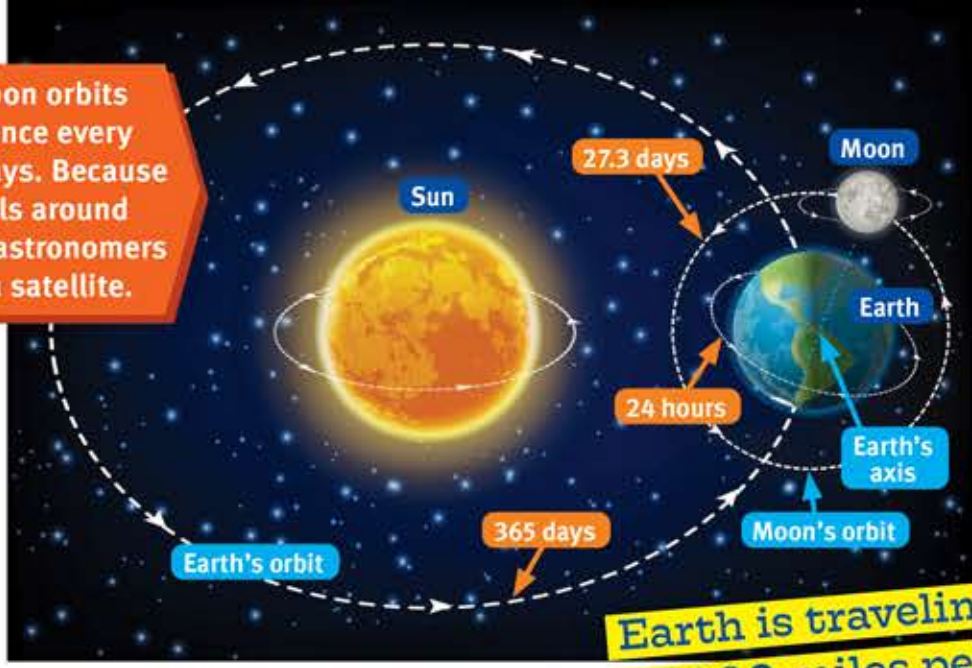
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Wondrous World

Earth is a planet unlike any other that we know. It has mountains and valleys, volcanoes and glaciers. Its surface is pelted by snowstorms and sizzled by lightning bolts. In all the universe, it is the only planet known to have an atmosphere with oxygen and oceans of liquid water on its surface. It is also the only place so far known to support life: plants and animals . . . and us!

No other known planets
have landscapes like Earth's.

The moon orbits Earth once every 27.3 days. Because it travels around Earth, astronomers call it a satellite.



Earth is traveling at 67,000 miles per hour (108,000 kilometers per hour) around the sun!

Earth's Dance

You can't feel it, but Earth is moving under your feet. The planet spins, rotating around an imaginary line called an **axis**. It runs from the North Pole to the South Pole. Earth takes 24 hours to complete one full rotation on its axis: This rotation is what gives us day and night.

Earth also moves around the sun in an oval-shaped path, or orbit. It takes Earth 365 days to make one trip around the sun: This is what gives us our year.

The Seasons

Whether it's the chill of winter or the heat of summer, the seasons on Earth occur because our planet is tilted. Every year around June 21 in the Northern Hemisphere, summer begins. Earth is tipped so its northern half faces the sun. This creates warm temperatures and long days. During Earth's yearlong orbit, the seasons change as different areas of the planet are exposed to the sun's light and heat.

This graph shows Northern Hemisphere seasons. When it is winter in the Northern Hemisphere, it is summer in the Southern Hemisphere.

