

READING PASSAGE · LEVEL 2 · ON-GRADE

NEPTUNE: THE FAR-AWAY GIANT

A reading passage for middle-grade students (Ages 8–10)

Neptune is the eighth and farthest known planet from the Sun. It is so far away — about 4.5 billion kilometres — that even at the speed of light, it takes more than four hours for a signal to travel from Neptune back to Earth. You cannot see Neptune with the naked eye; only telescopes reveal it.

Like Uranus, Neptune is an ice giant: a planet made mostly of slushy ices of water, methane, and ammonia, surrounding a small rocky core. Methane in the upper atmosphere makes Neptune appear deep blue, even bluer than Uranus.

Despite being so far from the Sun, Neptune is a stormy and active world. It has the fastest winds in the solar system — clocked at over 2,100 km per hour, faster than the speed of sound on Earth! Voyager 2 also photographed a huge storm called the Great Dark Spot in 1989, though that storm has since faded and others have appeared in its place.

Neptune has 16 known moons. The biggest, Triton, is unique because it orbits Neptune in the opposite direction to the planet's rotation — a clue that suggests Triton may once have been a separate world, captured by Neptune's gravity.

Neptune is also one of the most accurate scientific predictions ever made. The planet was found in 1846 by mathematicians who calculated where it should be — before any astronomer actually saw it!

★ WORDS TO KNOW — 4 TERMS

ice giant
A planet made mostly of icy slush of water, methane, and ammonia.

naked eye
Using just your eyes, without a telescope or other tool.

supersonic
Faster than the speed of sound.

gravity
The pull that holds objects to a planet, moon, or star.

★ COMPREHENSION QUESTIONS — 5 QUESTIONS

1. Why can't we see Neptune without a telescope?

2. What gives Neptune its deep blue colour?

3. What was the Great Dark Spot, and what happened to it?

4. What is unusual about Neptune's moon Triton?

5. How was Neptune first discovered? Why is that special?