

THE FASCINATING
SCIENCE
BOOK
FOR KIDS
500
AMAZING FACTS!
KEVIN KURTZ, MA





Meet Earth's sister planet, Venus!
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What color is snow?
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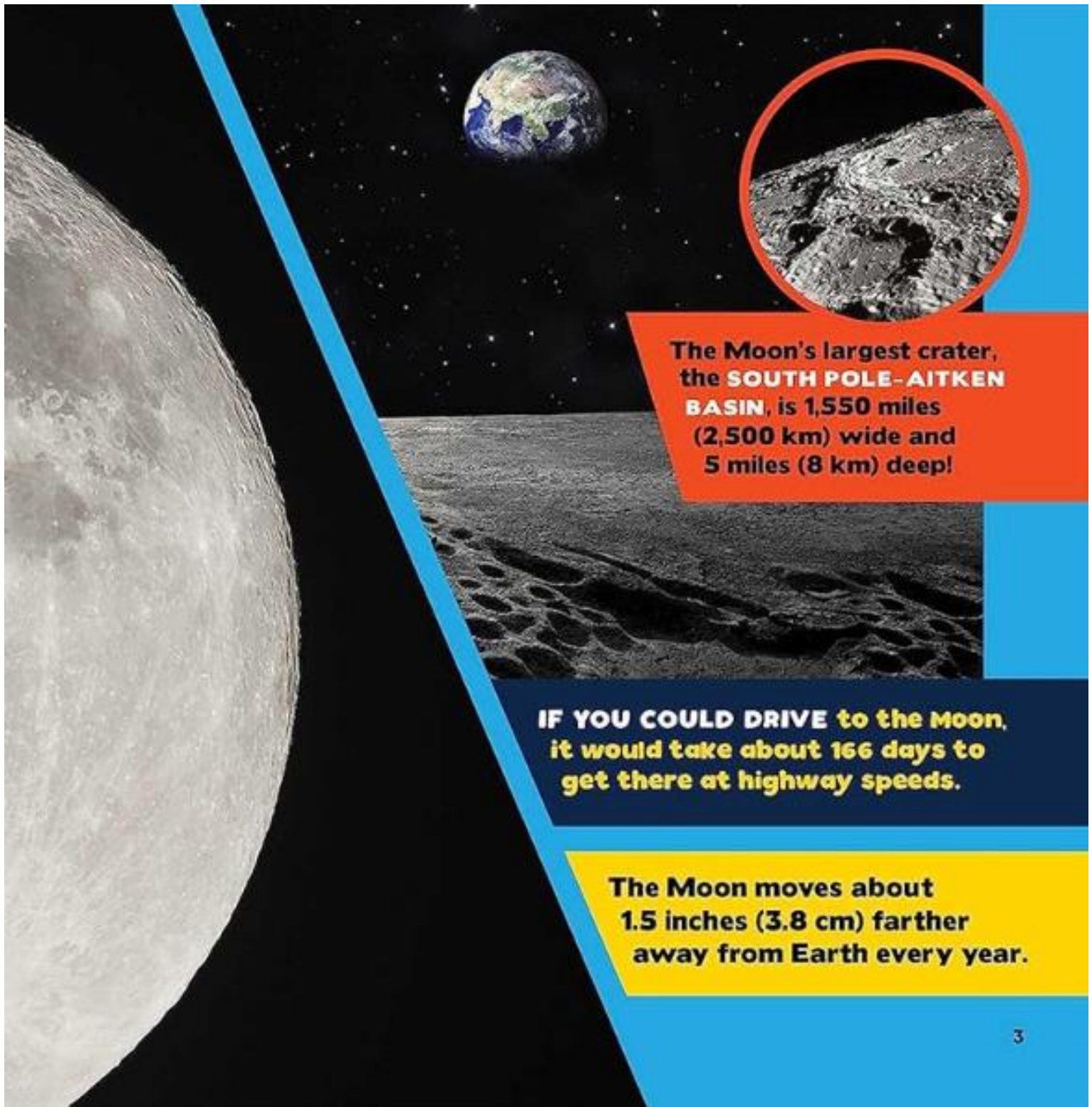
OUR MARVELOUS MOON

Earth's moon is a **NATURAL SATELLITE** that orbits around our planet about once every 27 days.

The Moon is one-quarter the size of Earth.

A small planet smashed into Earth billions of years ago, blasting magma, rock, and dust into orbit—which eventually became the Moon.

THE LARGE, DARK SPOTS ON THE MOON ARE CALLED "SEAS," BUT THEY ARE ACTUALLY LAVA ROCK FROM ANCIENT VOLCANIC ERUPTIONS.



The Moon's largest crater, the SOUTH POLE-AITKEN BASIN, is 1,550 miles (2,500 km) wide and 5 miles (8 km) deep!

IF YOU COULD DRIVE to the Moon, it would take about 166 days to get there at highway speeds.

The Moon moves about 1.5 inches (3.8 cm) farther away from Earth every year.

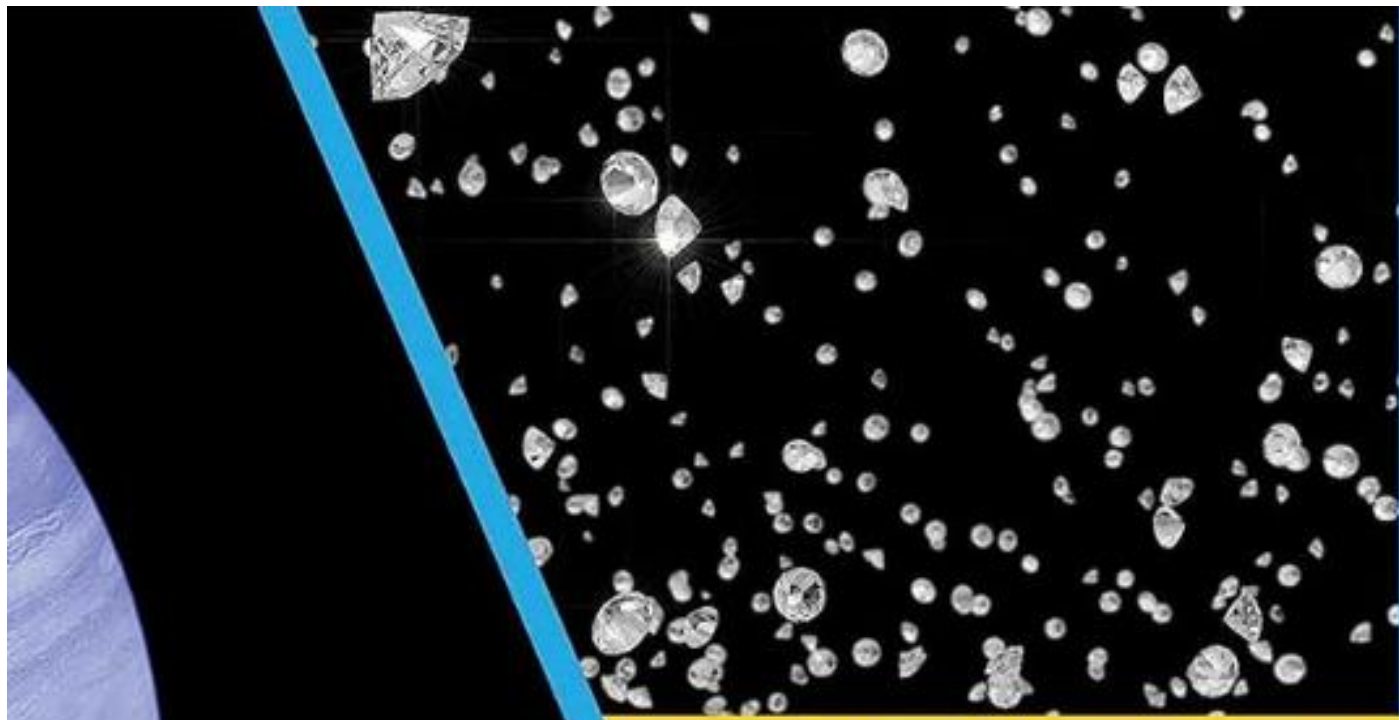
THE OTHER BLUE PLANET

NEPTUNE is the farthest planet from the Sun in our solar system.

Because Neptune is **2.8 billion miles (4.5 billion km)** away from the Sun, a sunny day on Neptune is **900 times darker** than it is here on Earth.

Neptune winds can blow at speeds of **1,200 miles (2,000 km)** per hour—the fastest in the solar system!

LIKE EARTH, NEPTUNE HAS FOUR SEASONS, BUT SINCE NEPTUNE TAKES 165 EARTH YEARS TO ORBIT THE SUN, EACH SEASON LASTS ABOUT 41 YEARS.



Scientists have evidence that sometimes tiny **DIAMONDS** fall from the sky on Neptune.

Neptune's largest moon, **TRITON**, has geysers that send nitrogen gas and ice 5 miles (8 km) into the sky!



OPPOSITES ATTRACT

A **MAGNET** is an object that produces an invisible magnetic field. Opposite poles of magnets attract each other and like poles repel each other.

Magnets are usually made from **IRON, NICKEL, and COBALT**. Gold, silver, copper, lead, and aluminum cannot be magnetized.

The cells of living things are repelled by strong magnets. A **FROG** put on a super-strong magnet will float.



MAGLEV TRAINS

USE STRONG MAGNETS THAT REPEL EACH OTHER TO MAKE THE ENTIRE TRAIN HOVER AND MOVE AT SPEEDS UP TO 375 MILES (600 KM) PER HOUR.



The only naturally occurring magnets are called **LODESTONES**. Iron can become a lodestone when it is struck by lightning.

SCIENTISTS HAVE CREATED MAGNETIC LIQUIDS BY PUTTING INCREDIBLY TINY IRON PARTICLES INSIDE THEM.



LET THERE BE LIGHT!

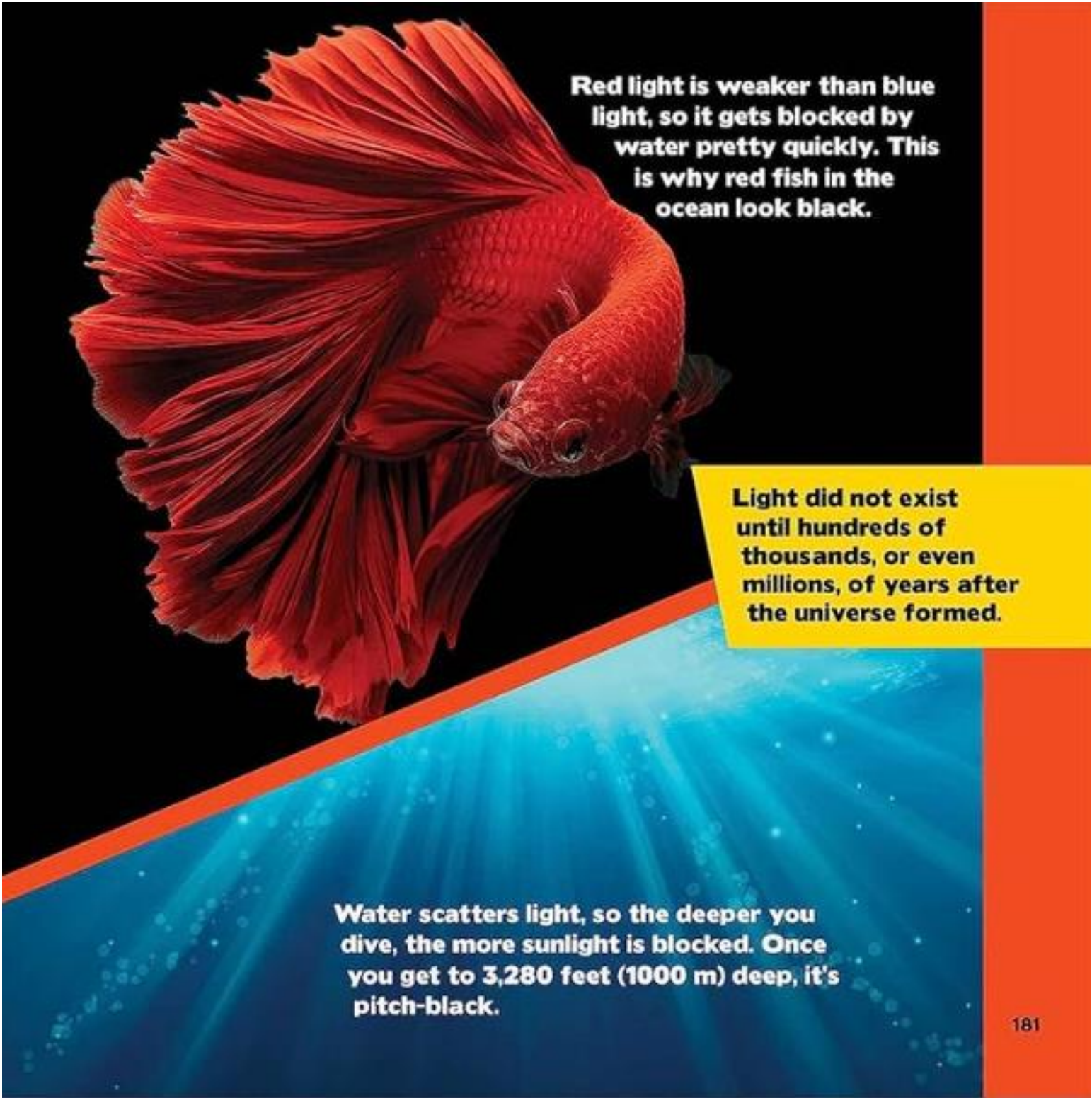
VISIBLE LIGHT is a collection of energy waves that we can see. Light includes all the colors.

VISIBLE LIGHT WAVES TRAVEL THROUGH SPACE WITH OTHER WAVES WE CAN'T SEE, LIKE X-RAYS, GAMMA RAYS, RADIO WAVES, INFRARED LIGHT, AND ULTRAVIOLET WAVES.

Scientists have created something called "**ULTRA-BLACK**" that absorbs all the light that touches it, even laser light.

Moonlight shining through water droplets in the air will create a faint **MOONBOW**.





Red light is weaker than blue light, so it gets blocked by water pretty quickly. This is why red fish in the ocean look black.

Light did not exist until hundreds of thousands, or even millions, of years after the universe formed.

Water scatters light, so the deeper you dive, the more sunlight is blocked. Once you get to 3,280 feet (1000 m) deep, it's pitch-black.