

## One Ocean and Four – or Five – Basins

The ocean is the lifeblood of Earth, covering more than 70 percent of the planet's surface, driving weather, regulating temperature, and ultimately supporting all living organisms. Throughout history, the ocean has been a vital source of sustenance, transport, commerce, growth, and inspiration. Yet, we've barely scratched the surface of the sea, a place that an estimated one million species of animals call home. The ocean is a mystery that still has so much discovering waiting to happen.

### Memory questions:

What percentage of Earth is cover by water?

More than 70%.

Name seven reasons why the ocean is so important.

The ocean drives weather, regulates temperature, produces oxygen, is a food source, is a mode of transport, creates trade, and is home to many animal species.

Find one word in the first paragraph that means "something (such as food) that keeps someone or something alive".

Sustenance

### Other questions:

Find a synonym for *hardly* in the passage.

Barely

Earth has one global ocean that is divided into four named ocean basins: the Pacific, Indian, Atlantic and Arctic Oceans. Most countries now recognize the Southern (Antarctic) as the fifth ocean basin. The Pacific is the largest, covering 30 percent of Earth. At its widest point, from Indonesia all the way to Colombia, the Pacific Ocean is wider than the moon, by quite a lot. This expanse of ocean is 12,300 miles across, which is more than five times the diameter of the moon.



Memory questions:

What are the four named ocean basins of the world.

Pacific, Atlantic, Indian and Arctic.

Which ocean basin is the largest?

Pacific

What percent of planet Earth does the Pacific Ocean cover?

30%

How many times is the Pacific wider than the moon?

Five times wider.

Other questions:

Find an antonym for *narrowest* in the passage.

Widest

In the colder parts of the ocean, one finds massive icebergs. So big, in fact, that one iceberg can supply a million people with drinking water for five years. In the deepest parts of the ocean, the water temperature may be only 35–39 degrees Fahrenheit (2–4 degrees Celsius), with the exception of water coming out of hydrothermal vents in the seafloor. The water released from these vents can reach up to 750 degrees Fahrenheit (400 degrees Celsius). It's the intense pressure at these depths — the same pressure that will crush you — that keeps the water from boiling.

Memory questions:

How many people, and for how long, can be supplied with water from one massive iceberg?

One million for five years.

What is the temperature of water in the deepest parts of the ocean?

35–39 degrees Fahrenheit (2–4 degrees Celsius).

How hot is the water that comes out of hydrothermal vents?

750 degrees Fahrenheit (400 degrees Celsius).

What keeps the water from boiling?

The intense pressure — the same pressure that would crush you.

Only 5 percent of the ocean has been explored, which leaves up to 95 percent of the ocean that is unknown. This includes volcanoes, canyons, life and an estimated three million shipwrecks spread across the ocean floor. We have a more detailed map of Mars than we do of our own waters.

Memory questions:

What percentage of the ocean has been explored?

5%

Name three things we can find in the ocean, that you will also find on the surface of planet Earth.

Canyons, volcanoes, life.

Did you know that most of our gold is in our world's oceans? According to the National Ocean Service, there is an estimated 20 million tons of gold suspended in the normal seawater. But this gold is spread throughout the normal mineral content of seawater to the tune of "parts per trillion." Each liter of seawater contains, on average, about 13 billionths of a gram of gold. There are also gold deposits within the seafloor, but profitably mining them is far beyond our current abilities.

Other questions:

Find one word in the passage that means “belonging to or existing in the present time.”

Current

Will Man set foot on Mars before being able to extract the gold in our oceans? What do you think?

Open answer.

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