

Oceans and Continents

Chapter-2

The Big Ques (Page 27)

Ques 1. What are oceans and continents? What are their names and their distribution?

Answer:

Oceans are large bodies of saltwater that cover about 71 % of the Earth's surface. Their name and distribution are as follows:

1. The Pacific Ocean is the largest and deepest ocean, located between Asia, Australia, and the Americas.
2. The Atlantic Ocean is the second-largest ocean, between the Americas to the west and Europe and Africa to the east.
3. The Indian Ocean is located between Africa, Asia, Australia, and the Indian subcontinent..
4. The Arctic Ocean is the smallest and shallowest ocean, located around the Arctic region, north of Europe, Asia, and North America.
5. The Southern Ocean surrounds Antarctica and is the smallest of the five oceans.

Continents are large landmasses on Earth, each made up of countries, cities, and various natural features. Their name and distribution are as follows:

1. Asia is the largest continent, located in the eastern part of the world, including countries like China, India, and Japan.
2. Africa is the second-largest continent, located south of Europe, including countries like Egypt, Nigeria, and South Africa.
3. North America is located to the north of the equator, including countries like the USA, Canada, and Mexico..
4. South America is located to the south of North America, including countries like Brazil, Argentina, and Peru.

5. Antarctica is the coldest continent, located around the South Pole, covered mostly by ice.
6. Europe is located to the west of Asia, including countries like France, Germany, and Italy.
7. Australia is the smallest continent, located in the Southern Hemisphere, including the country of Australia and nearby islands.

Ques 2.

In what ways do oceans and continents impact life on Earth, including human life?

Answer:

The oceans and continents has great impact on Earth as well as on human beings in the following ways:

1. Oceans help control the climate by spreading heat around the planet, making coastal areas warmer in winter and cooler in summer.
2. They also provide homes for many sea creatures, like fish and whales, and produce a lot of the Earth's oxygen through tiny plants called phytoplankton.
3. Oceans are important for food, as many people eat fish and seafood, and they are used for shipping goods between countries, which helps businesses trade with each other.
4. On the other hand, continents provide the land where people live and build cities. They have important natural resources, like minerals and fossil fuels, and fertile land for growing crops.
5. Each continent has its own unique animals and plants, which add to the Earth's biodiversity.
6. Continents also influence cultures and ways of life, as different landscapes and climates shape how people live and work.

Let's Explore

Ques 1.

What are the circular lines in each map called? And do you know what the lines radiating out of the two poles are called? (Hint: you studied them in the previous chapter, but here they are presented differently.) (Page 29)

Answer:

The circular lines on a map are called lines of latitude. They run parallel to the Equator and help us measure how far north or south a place is from the Equator. For example, the Equator is at 0° latitude, while the poles are at 90° N or 90° S.

The lines radiating out from the two poles are called lines of longitude. These lines run from the North Pole to the South Pole and help us measure how far east or west a place is from the Prime Meridian. Longitude lines are like slices of an orange, stretching from one pole to the other.

Ques 2.

Which hemisphere holds more water? (Page 29)

Answer:

The Southern Hemisphere holds more water compared to the Northern Hemisphere. This is because the Southern Hemisphere has more oceanic area, with the vast Pacific, Atlantic, and Indian Oceans covering a significant portion of it. In contrast, the Northern Hemisphere has more landmasses and continents, which means it has less oceanic coverage.

Ques 3.

What do you think could be the approximate proportion of water to land in the Northern Hemisphere? And in the Southern Hemisphere? Discuss in groups. (Page 29)

Answer:

Do it yourself.

Ques 4.

Are all the oceans connected with one another, or are there separations between them? (Page 29)

Answer:

Yes, all the oceans are connected to each other. Even though we talk about them as separate oceans, like the Atlantic Ocean and the Pacific Ocean, they all flow into each other and form one large, continuous body of water called the World Ocean. Here's how they connect:

The Pacific Ocean connects to the Atlantic Ocean through the Southern Ocean near Antarctica.

The Atlantic Ocean connects to the Indian Ocean through the Southern Ocean and around the southern tip of Africa.

The Indian Ocean connects to the Pacific Ocean through the Southern Ocean and around the southern tip of Australia.

The Arctic Ocean connects to the Atlantic Ocean through the North Sea and the Bering Strait.

So, while we use different names for these large bodies of water, they are all part of one big, interconnected ocean system.

Ques 5.

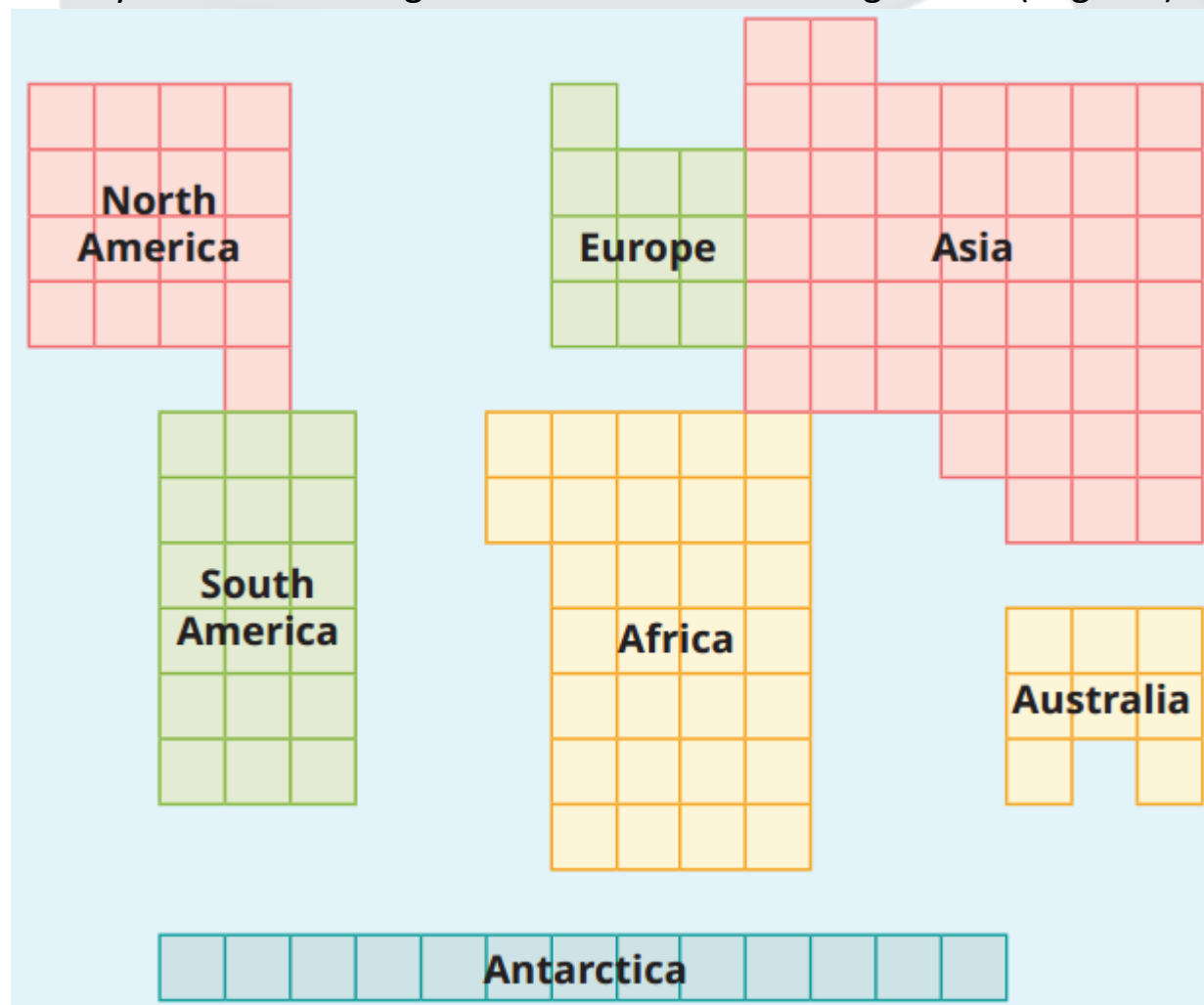
Locate the five oceans and, in the table below, mark the hemisphere or hemispheres they belong to. (Page 32)

	Northern Hemisphere	Southern Hemisphere
Pacific Ocean		
Atlantic Ocean		
Indian Ocean		
Southern Ocean		
Arctic Ocean		

Answer:

	Northern Hemisphere	Southern Hemisphere
Pacific Ocean	Northern Hemisphere	Southern Hemisphere
Atlantic Ocean	Northern Hemisphere	Southern Hemisphere
Indian Ocean		Southern Hemisphere
Southern Ocean		Southern Hemisphere

Observe the below image and answer the following Quess: (Page 36)



Ques 6.

Counting the numbers of squares, name the largest continent and the smallest.

Answer:

The largest is Asia and the smallest is Australia.

Ques 7.

Which one is larger-North America or South America? Africa or North America? Antarctica or Australia?

Answer:

South America is larger than North America. Africa is larger than North America. Antarctica is larger than Australia.

Ques 8.

Re-colour the diagram by having a single colour for Europe and Asia and rename the result as 'Eurasia'. Compare its size with South America's.

Answer:

Do it yourself.

Ques 9.

Write down the list of continents from the smallest to the largest.

Answer:

Here is a list of continents from the smallest to the largest:

1. Australia
2. Antarctica
3. South America
4. North America
5. Europe
6. Africa
7. Asia

Think About It (Page 31)

Ques 1.

If there is such abundance of water on the planet, why is there so much talk of 'water scarcity' or a 'water crisis'?

Answer:

Despite Earth's abundance of water, 'water scarcity' or a 'water crisis' arises due to several factors. Firstly, 97.5 % of Earth's water is saltwater, unsuitable for most human uses, while only 2.5 % is freshwater, much of which is locked in glaciers, ice caps, or deep underground. This leaves a limited supply of accessible freshwater, unevenly distributed globally, leading to shortages in many regions. Rapid population growth and urbanization increase demand, often outpacing local supply capacities.

Pollution from industrial waste, agricultural runoff; and improper disposal further reduces clean water availability. Climate change alters precipitation patterns, causing droughts and floods, while melting glaciers diminish vital seasonal meltwater sources. Over-extraction of groundwater and surface water depletes these resources, and inefficient agricultural, industrial, and domestic water use exacerbates the problem. All these factors combine to create water scarcity despite the planet's vast water resources.

Ques 2.

What ways of saving water are you aware of? Which ones have you seen practised at home, at your school, and in your village, town or city?

Answer:

Ways of Saving Water:

1. Repairing dripping taps and pipes.
2. Using water-saving appliances and fixtures.
3. Taking shorter showers to reduce water use.
4. Turning off the tap while brushing teeth or washing hands.
5. Collecting and storing rainwater for later use.

6. Reusing water from sinks and showers for irrigation.
7. Watering plants in the early morning or late evening to reduce evaporation.
8. Using drip irrigation or soaker hoses for gardens.
9. Running dishwashers and washing machines only with full loads.
10. Using mulch to retain soil moisture in gardens.

Practiced at Home, School, and Community:

1. At Home: Fixing leaks, turning off taps while brushing, using water-efficient appliances.
2. At School: Installing water-saving fixtures, educating students on water conservation.
3. In the Community: Rainwater harvesting, public awareness campaigns, efficient irrigation in agriculture.

Oceans and Continents Ques Answer (Exercise)

Ques 1.

Explain the following terms:

(a) Continent

(b) Ocean

(c) Island

Answer:

(a) Continent: A continent is one of the large landmasses on Earth that covers a little over one-fourth of the Earth's surface. There are seven continents: Africa, Antarctica, Asia, Australia, Europe, North America, and South America. Continents are important because they shape Earth's climate and impact the lives of plants, animals, and humans. Answer: For example, Asia is the largest continent and has many different countries and cultures.

(b) Ocean: An ocean is a vast and deep body of saltwater that covers almost three-fourths of the Earth's surface, making our planet appear mostly blue from space. There are five major oceans: the Pacific Ocean, the Atlantic Ocean, the Indian Ocean, the Arctic Ocean, and the Southern Ocean. Oceans are crucial because they support diverse marine life, produce more than half of the world's oxygen, and play a vital role in the Earth's water cycle by sending rain to continents. They also have smaller extensions called seas, bays, and gulfs.

(c) Island: An island is a smaller piece of land that is completely surrounded by water. Islands can vary in size, and some, like Greenland, are very large, while others are much smaller. India has over 1,300 islands, including the Andaman and Nicobar Islands and Lakshadweep Islands. Islands can have unique plants, animals, and cultures. They are important parts of the Earth's geography and are often found in oceans and seas.

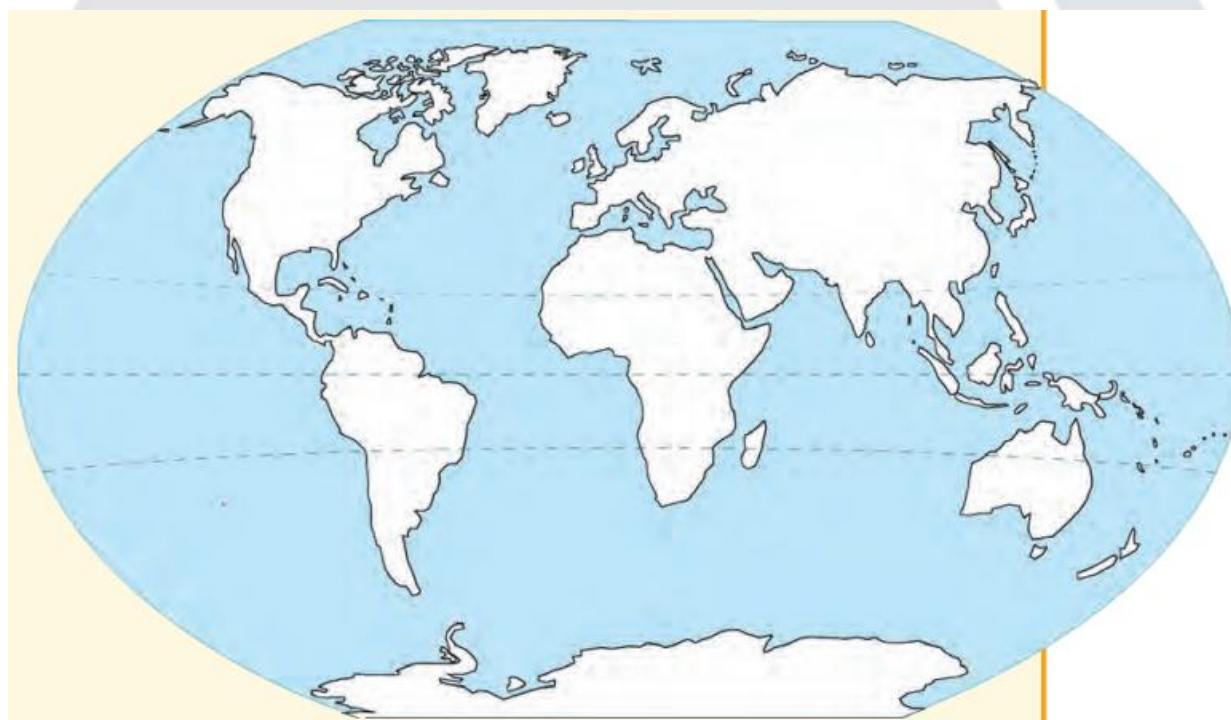
Activities

1. Let us draw – Without looking at the maps in this chapter, draw the continents free hand on a sheet of paper and colour them. Then compare your drawing with the map of oceans and continents in the chapter.

Answer:

Do it yourself.

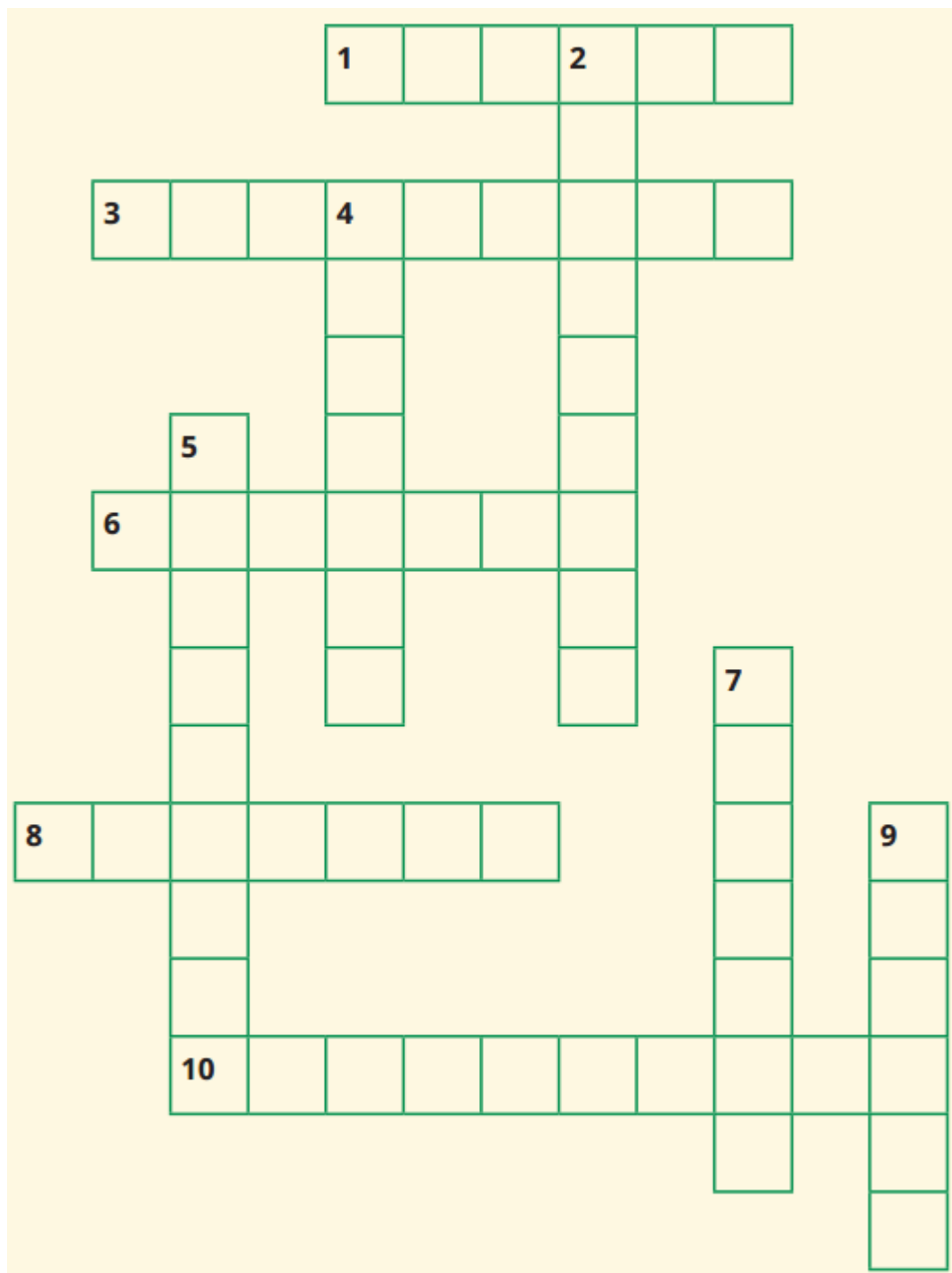
2. Let us do-On the outline map of the world given below, label all the continents and oceans



Answer:

Do it yourself.

3. Solve this crossword



Across :

1. Abundantly produced by the oceans
3. A large expanse of landmass
6. A large continent of which India is a part
8. A major source of pollution of the oceans
10. The coldest continent

Down :

2. The largest island on Earth
4. A huge destructive wave from the ocean
5. The smallest continent
7. The largest body of water on the Earth
9. A landmass (but not a continent) surrounded by the sea or ocean

Answer:

Across:

1. Oxygen
3. Continent
6. Asia
8. Plain
10. Antarctica

Down:

2. Greenland
4. Tsunami
5. Australia
7. Pacific
9. Island