

Major Water Bodies

POINTS TO REMEMBER

- Nearly 71 per cent of the surface of earth is covered by water.
- There are five large water bodies called oceans in the world. These are the Pacific Ocean, the Atlantic Ocean, the Indian Ocean, the Arctic Ocean and the Southern Ocean. Smaller water bodies include seas, lakes and rivers.
- A river is a stream of water which flows in a channel from high ground to low ground and finally to a lake or a sea. The place where the river originates is called its source and the place where it ends is called its mouth.
- The route or course of a river has three stages—the upper, middle and lower stages. In the upper stage the river is in the mountains, in the middle stage it flows over plains, and in the lower stage the river generally meets an ocean or a sea.
- Almost all human activities generate waste which causes pollution.
- Untreated liquid waste from kitchens and toilets of households, liquid wastes from thermal power plants, surface run-off from farms and oil spills are the main causes of water pollution.
- Water pollution causes diseases such as typhoid, cholera and amoebic dysentery.

IMPORTANT TERMS

Ridge : A high pointed area near the top of a mountain.

Surface run-off : Water from rain, melting snow, or other sources that flows over land and is a part of the water cycle.

THINK AND ANSWER

Everything that we do creates waste, which, in turn, creates pollution. How do you think you can reduce the amount of waste you generate?

Answer:

1. Liquid waste from thermal power plants should not be discharged in the rivers. As it increases the dissolved oxygen content of river water, leading to a sudden rise in microbe population. This, in turn, reduces the level of oxygen in the river and makes it difficult for other kinds of organisms to survive.
2. Surface run-off should not be discharged in the rivers as Surface run-off from farms carries organic and inorganic fertilizers into water bodies. This promotes the growth of algae, which reduces the dissolved oxygen level in water. Other living organisms in water bodies, including fish, cannot survive in such conditions.
3. By not discharging the Untreated liquid waste into the rivers. Untreated liquid waste from kitchens and toilets is often discharged into rivers. This exposes people who use river water to diseases such as typhoid, cholera and amoebic dysentery.

4. By taking dual care of leakage of Oil Spills in rivers. An oil spill occurs when crude oil, while being transported from one country to another, gets leaked into the sea.

VALUES AND LIFE SKILLS

Water is very important for sustaining life on earth. We should be careful while using water and should take steps to save our water resources.

What are the things that you can do to save water?

Answer:

We can save water by doing following things,

1. Check all faucets, pipes and toilets for leaks.
2. Install water saving showerheads and ultra-low-flush toilets.
3. Take shorter showers.
4. Never use your toilet as a wastebasket.
5. Turn off the water while brushing your teeth or shaving.

EXERCISES

A. Match the columns

A	B
1. the Ring of Fire	(i) water pollution
2. the Atlantic Ocean	(ii) inland sea
3. the Caspian Sea	(iii) mountain ranges around the Pacific Ocean
4. oil spill	(iv) an S-shaped ocean

Answer:

A	B
1. the Ring of Fire	(iii) mountain ranges around the Pacific Ocean
2. the Atlantic Ocean	(iv) an S-shaped ocean
3. the Caspian Sea	(ii) inland sea
4. oil spill	(i) water pollution

B. With the help of your atlas identify and mark the following in an outline map of the world.

Question 1.

The largest ocean in the world

Answer:

Pacific ocean.

Question 2.

The northernmost ocean

Answer:

Arctic ocean.

Question 3.

An inland sea in Eurasia

Answer:

Aral sea.

Question 4.

Two rivers in Europe

Answer:

Rhine and Danube.

c. Answer the following questions in brief

Question 1.

Name the major water bodies on earth.

Answer:

The major water bodies on earth are oceans, seas, lakes and rivers.

Question 2.

What is the Ring of Fire?

Answer:

The Pacific Ocean is bordered by volcanic mountains on its edges. So it is termed as 'Ring of Fire'.

Question 3.

What is the difference between a gulf and a bay?

Answer:

A gulf is an inlet of the sea of large areal proportions while a bay is an open, curving indentation made by the sea or a lake into a coastline. Gulfs are more indented than bays and also more enclosed.

Question 4.

What do you understand by strait? Give an example.

Answer:

A strait is a narrow stretch of water that joins two large water bodies. The Strait of Gibraltar, for example, connects the Mediterranean Sea to the North Atlantic Ocean.

Question 5.

Mention the five Great Lakes of the USA.

Answer:

The five Great Lakes of the USA — Superior, Huron, Michigan, Ontario and Erie—are a group of five huge freshwater lakes located between the United States and Canada. They comprise the largest body of fresh water on earth.

Question 6.

Name the different parts of a river.

Answer:

The two main parts of a river are its source (from where the river originates) and the mouth (where the river enters the sea).

Question 7.

What is surface run-off?

Answer:

Surface run-off means the water from any source i.e. rain, river, etc which carries away the upper layer of soil, organic and inorganic fertilizers and make it a part of water cycle.

D. Answer the following questions in one or two paragraphs**Question 1.**

Why are oceans important?

Answer:

Oceans are very important for us for many reasons :

1. Oceans are great storehouses of oil and mineral resources.
2. They support a large variety of aquatic life.
3. They facilitate international trade by providing trade routes.
4. Oceans are also a source of food supply for many people around the world.

Question 2.

Describe the course of a river.

Answer:

The river passes through three courses from its source to mouth – upper, middle and lower. The upper course generally lies in mountains where land is steep and river flows very fast. At middle course the river speed decreases as plains have gentle slope. The flow of the river is nearly halted at its mouth (where it meets the sea or ocean).

Question 3.

Mention any five important rivers of the world,

Answer:

The river Nile in Africa, 6,695 km in length, is the world's longest river. It flows out into the Mediterranean Sea. The Amazon, 6,640 km in length, flows through South America

and is the second longest river in the world. Other important rivers in the world are the Mississippi in the USA, the Rhine and the Danube in Europe and the Ganga in India.

Question 4.

Briefly describe the importance of rivers.

Answer:

Importance of Rivers — Rivers are an extremely important water resource:

1. The river valleys and plains provide fertile soils and crops grow in plenty in and around the region,
2. River water is used for human and animal consumption. Rivers provide abundant water supply to support large settlements.
3. Rivers provide means of transport to carry humans and goods from one place to another and thus facilitate trade.
4. River water is an important source of energy. It is used to power hydroelectric plants and helps in generation of electricity. It also thus helps the industries to grow.
5. Rivers also provide the means for recreational activities.

Question 5.

What are the major causes of water pollution?

Answer:

The major causes of water pollution are liquid waste from thermal power plants, surface run-off, untreated liquid waste from industries, sewage, household waste and oil-spills.

Question 6.

What is an oil spill? Why is it harmful for the environment?

Answer:

When the crude oil gets leaked into the sea while being transported from one country to another because of an accident and hurricanes it is called oil – spill. The aquatic life gets poisoned as oxygen can't reach them and leads to their death affecting the life cycle.

E. Picture study:



Look at the picture of an ocean given here and answer the questions.

Question 1.

Describe the characteristics of the largest ocean in the world.

Answer:

Pacific ocean is the largest ocean and covers one-third of the globe. It is circular in shape and is bordered by volcanic mountains and is termed as 'Ring of Fire'. The deepest part of earth i.e. Mariana Trench lies in this ocean near the Philippines.

Question 2.

What are the differences between an ocean and a sea?

Answer:

Ocean :

1. Oceans are large water bodies covering 97% of earth's water.
2. There are main 5 oceans eg. Pacific, Arctic, Atlantic, Indian and Southern Ocean.

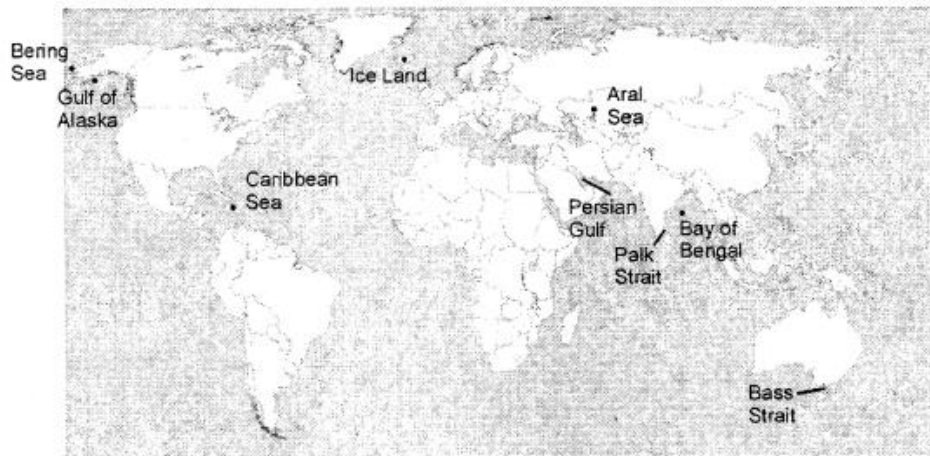
Sea:

1. Sea is a part of the ocean that is smaller and shallower, located close to the edge of a land mass or continent.
2. There are many seas eg. Caribbean sea, Bering sea, Arabian sea, North sea, etc.

F. On a blank outline map of the world, mark and label the following.

Gulf of Alaska, Caribbean Sea, Bering Strait, Bay of Bengal, Bering Sea, Persian Gulf, Bass Strait, Iceland, Aral Sea

Answer:



Let's Do Something

Question 1.

Refer to your atlas and identify some of the important seas in each ocean. Tabulate your observations as shown here and then mark and label them on a blank outline map of the world.

Name of ocean	Names of seas
Pacific
Atlantic
Indian
Arctic

Answer:

Name of ocean	Names of seas
Pacific	Yellow sea, Philippine sea, Bering sea
Atlantic	Caribbean sea, Mediterranean sea, North sea
Indian	Arabian sea, Red sea, The Bay of Bengal, Andaman sea
Arctic	Barents sea, Kara sea, Chukchi sea