



Date: 16th November- 20th November' 2020

Number of Blocks: 2

Topics: WATER

Subtopics:

- Water Cycle
- Distribution of Water bodies
- Ocean Circulation
- Waves
- Tides

Instructional Aid: MS Word, NCERT Pdf, YouTube video, Flow Chart, Concept Map, Diagram, Dictionary of Geography <https://ncert.nic.in/pdf/publication/otherpublications/tidog101.pdf>
<https://www.youtube.com/watch?v=AKeXywm1R0o>

<https://www.teachertube.com/videos/cool-water-cycle-song-120556>

<https://www.youtube.com/watch?v=DZppjdczUpM>

Learning Outcomes: Each student will be able to:

- Explain the circulation of water on the surface of the Earth.
- Identify major rivers, seas and lakes of the world on the world map
- Classify water bodies
- Describe the various movements in the ocean

Reference Book: Our Environment (NCERT Geography book class VII)

Chapter Link: <https://ncert.nic.in/textbook.php?gess2=4-9>

GUIDELINES:

Read the notes and Chapter 5 of Geography, '**WATER**' and follow the instructions given below. All the questions given below are to be done in the Social Science Notebook.

Block 1

Lesson Development

Introduction

Water Cycle: The process by which water continually changes its form and circulates between oceans, atmosphere and land is known as the water cycle. The same water that existed centuries ago still exists today. March 22 is celebrated as **World Water Day**.

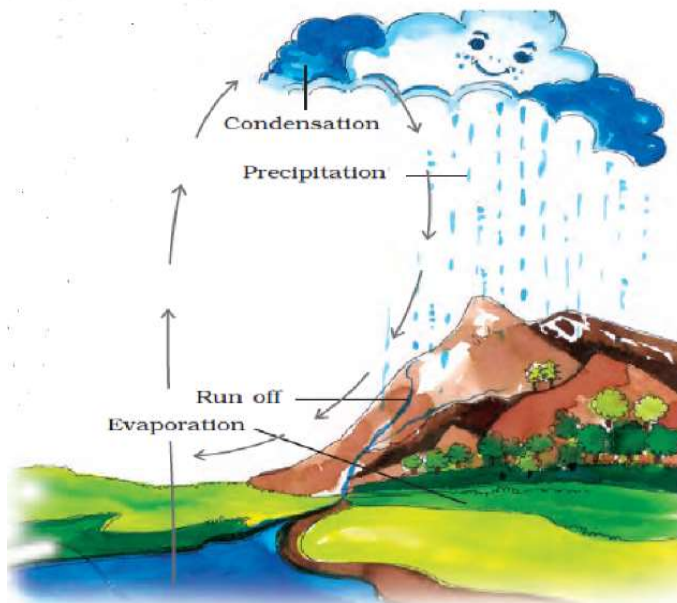
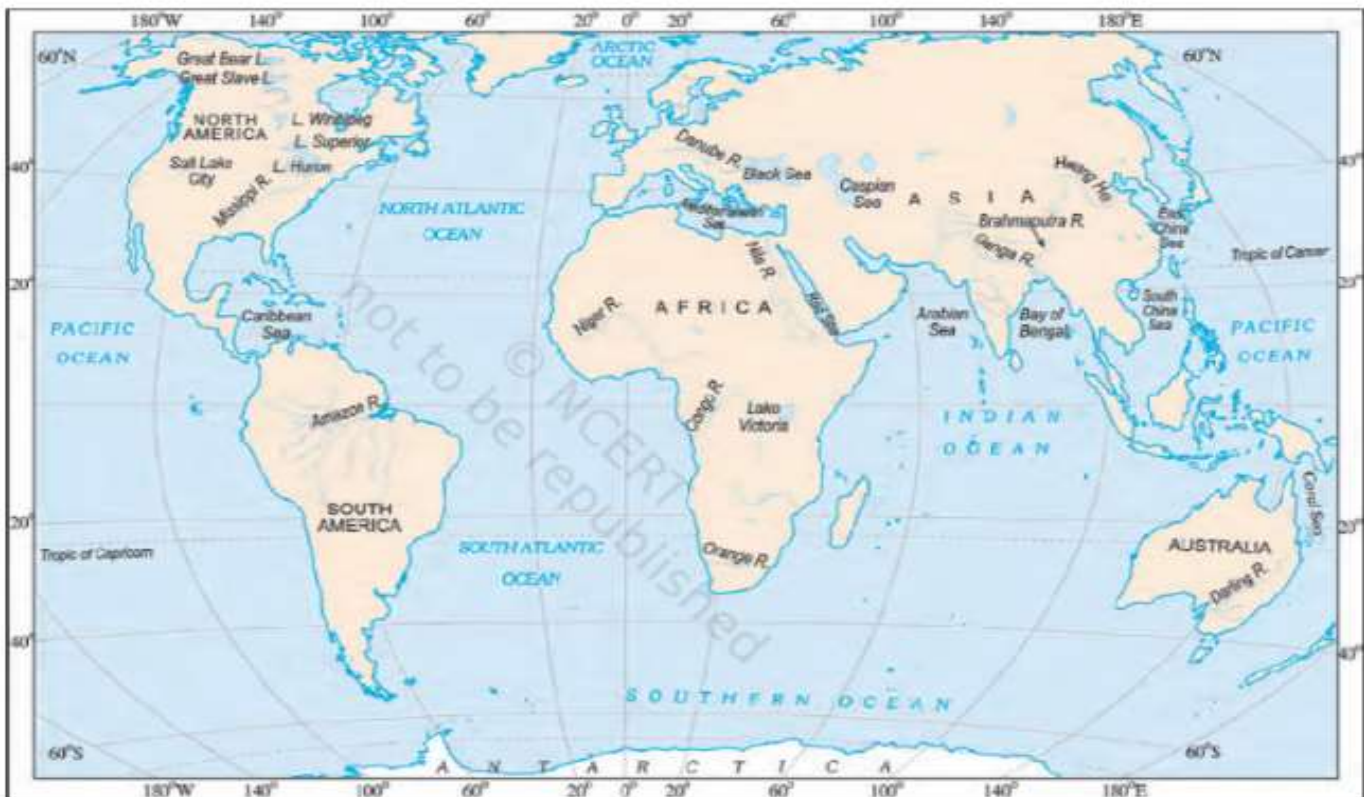


Fig. 5.1: Water Cycle

The major sources of freshwater are the rivers, ponds, springs, and glaciers. The ocean bodies and the seas contain salty water. Most of the salt is sodium chloride or the common table salt that we eat. **Salinity** is the amount of salt in grams present in 1000 grams of water. The average salinity of the oceans is 35 parts per thousand.



World- Major Seas, Lakes and Rivers

Distribution of Water Bodies

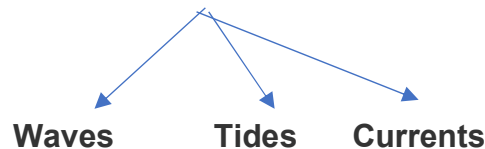
Three-fourth of the earth's surface is covered by water. Water is essential for our survival.

Oceans	:	97.3	Saline Water
Ice-caps	:	02.0	} Fresh Water
Ground water	:	0.68	
Fresh water lakes	:	0.009	
Inland seas and salt lakes	:	0.009	
Atmosphere	:	0.0019	
Rivers	:	0.0001	
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Distribution of Water

Ocean Circulation

The movements that occur in oceans can be broadly categorized as



Block 2

Lesson Development

Waves

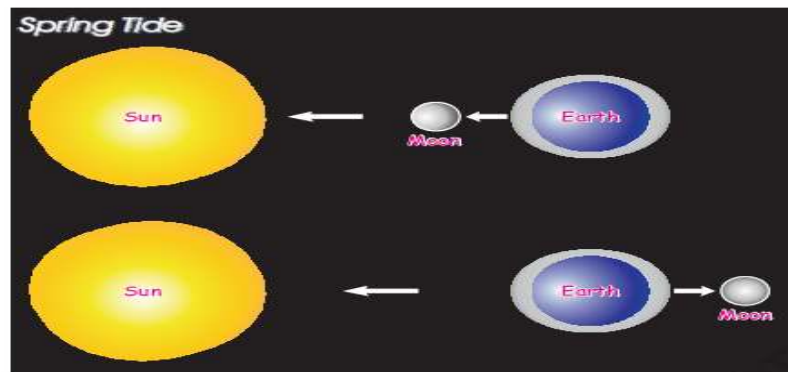
When the water on the surface of the ocean rises and falls alternately, they are called **Waves**. During a storm, the winds blowing at very high-speed form huge waves. These may cause tremendous destruction.

An earthquake, a volcanic eruption or underwater landslides can shift large amounts of ocean water. As a result, a huge tidal wave called **Tsunami** is formed. Tsunami is a Japanese word that means, '**Harbour waves**'.

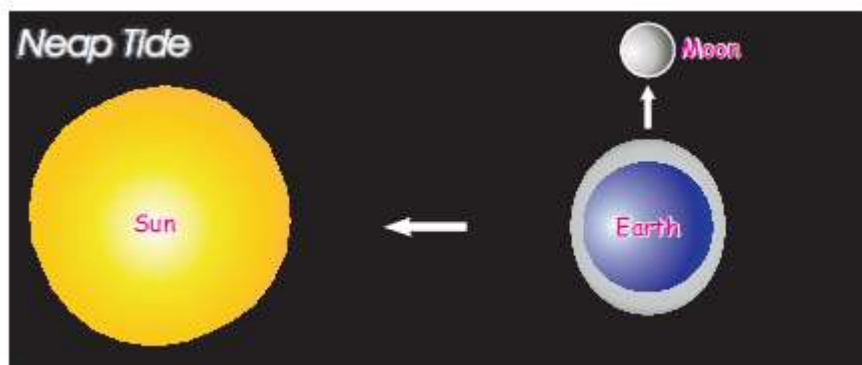
Tides

The rhythmic rise and fall of ocean water twice in a day is called a **Tide**. The strong gravitational pull exerted by the sun and the moon on the earth's surface cause the tides.

During the full moon and new moon days, the sun, the moon and the earth are in the same line and the tides are highest. These tides are called **Spring Tides**.



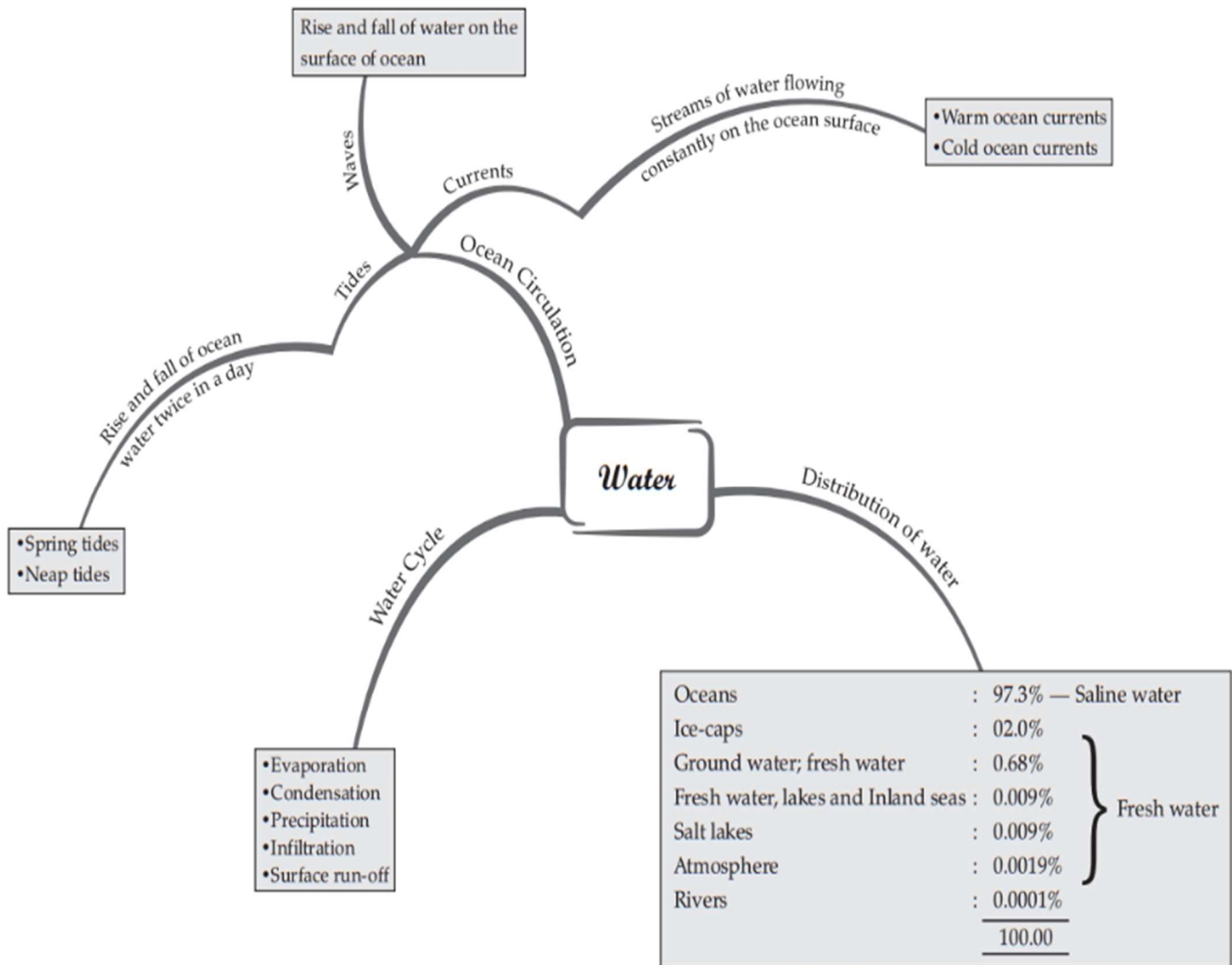
But when the moon is in its first and last quarter, the ocean waters get drawn in diagonally opposite directions by the gravitational pull of sun and moon resulting in low tides. These tides are called **Neap Tides**.



Ocean Currents

- Ocean currents are streams of water flowing constantly on the ocean surface in definite directions. The ocean currents may be **warm or cold**.
- The warm ocean currents originate near the equator and move towards the poles.
- The cold currents carry water from polar or higher latitudes to tropical or lower latitudes.
- The ocean currents influence the temperature conditions of the area.
- Warm currents bring about warm temperature over land surface.
- The areas where the warm and cold currents meet provide the best fishing grounds of the world, but they also experience foggy weather making it difficult for navigation.
- The Labrador Ocean current is a cold current, while the Gulf Stream is a warm current.

Summary:



Assignment:

Q1. Multiple Choice Questions:

- _____ is not a fresh water source.
 - River
 - Lake
 - Glacier
 - Ocean
- Which of the following are the types of tides?
 - Spring tide
 - Autumn tide
 - Neap tide
 - Both a and b

Q2. Match the following terms and examples:

Column I	Column II
(i) Wave	(a) Labrador Current
(ii) Cold current	(b) Tsunami
(iii) Tide	(c) Gulf Stream
(iv) Warm current	(d) Spring and Neap

Q3. Fill in the blanks:

1. A huge tidal wave is called _____
2. World Water Day is celebrated on _____
3. _____ is good for fishing but affects navigation.
4. _____ is a cold current.
5. The process by which water continually changes its form and circulates between ocean, atmosphere and land is called the _____.

Q4. Define waves.

Q5. Name any two sources of saline water.

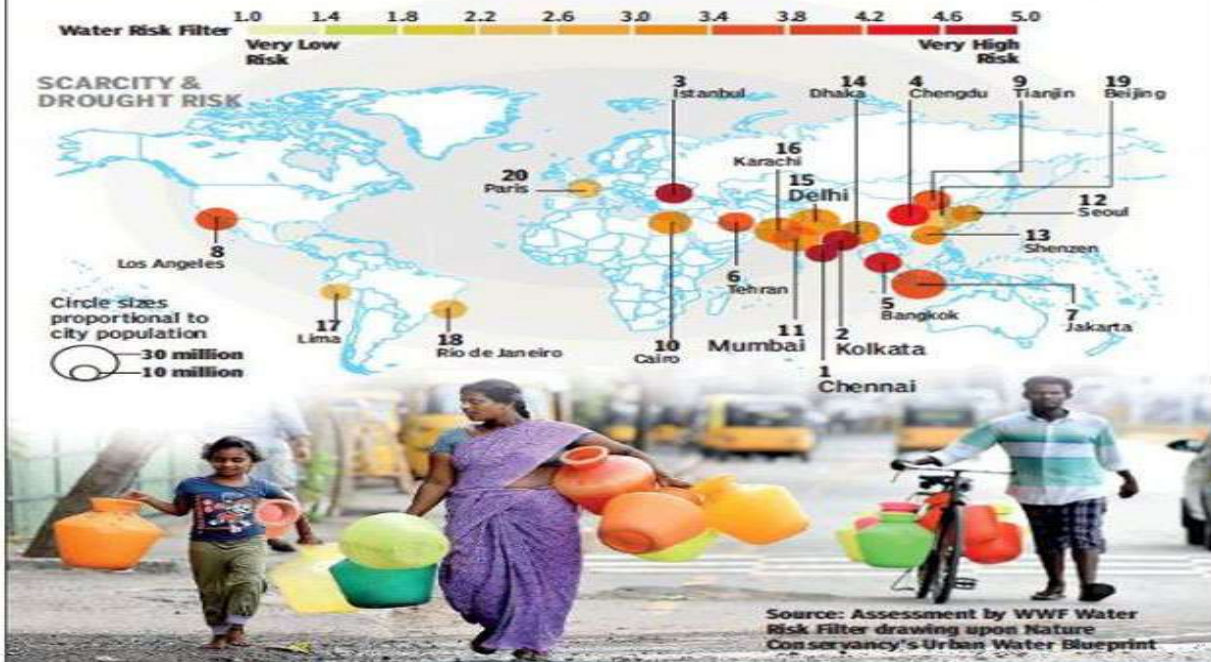
Q6. Define salinity.

Q7. Differentiate between Spring Tides and Neap Tides.

CASE STUDY

CHENNAI LEADS 400 CITIES ON WATER RISK

On the map, the top 20 megacities that face water risk, drought as per a WWF assesment



Read the data given in the article and answer the following questions:

1. Which social problem is the article referring to?
2. Why do you think it is important to address this issue?
3. Enlist any 5 steps that you can suggest to find a solution to the problem.