

## ENGLISH WEEKLY STUDY MATERIAL

### SA-1 REVISION (LITERATURE TOPICS)

#### Learning Objectives:

The students will be able to:

- i) The students will be able to recapitulate the summary of the topics.
- ii) They will be able to comprehend the story in their own words.
- iii) Learners will be able to attempt the related worksheet on their own.

### HOW DADDY PLAYED PING - PONG

#### About the Author

- **Alexander Raskin** was a famous Russian author and poet. His stories are very interesting, realistic and funny. They go from when he was a boy to when he became a young pioneer. One of his widely recognized works is *When Daddy was a Little Boy*, a largely autobiographical book about his childhood. So, the story *How Daddy Played Ping – Pong* is a collection of this work only.
- **Main characters in the story:**
  - a) Little Daddy
  - b) Teachers
  - c) Grandparents and Parents
  - d) Professor

#### Synopsis

In the story, the narrator is explaining how the game called Ping- Pong was invented when Little Daddy was a school going boy but he didn't get fascinated with this game in the beginning.



However, once Daddy learnt it and got persuaded by his peers he became so much obsessed that he stopped going to the school.



So, when the teacher came to know about this obsession of little Daddy she got worried. She immediately decides to write a letter to his grandparents and parents. However, to her utmost surprise she got to know that Little Daddy has torn the letter into tiny bits. Therefore, she decides to meet his parents.



However the parents did not discover it for a while because they didn't receive any letter. They discovered only when the teacher came and explained the whole matter. After this incident, they decided to take Little Daddy to a professor who used to treat crazy people. So, the professor tried to solve the problem and he gave Daddy the permission to play the tournament but only with a promise that he will join the school in the September. So, Little Daddy agreed to the proposal and he later joined the school.



Daddy realized the agony of his parents when he himself became a father and gets worried when he got to know that his daughter was also crazy for table – tennis. However, he was quite relaxed to know that his daughter is sensible enough that she will not stop going to school like him. Rather, she will manage her time accordingly.

### How I Taught My Grandmother to Read

- Sudha Murty

URL : <https://www.youtube.com/watch?v=-pM0SZ7H1yA>

#### About the Author

Sudha Murty was born in 1950 in Shiggaon in North Karnataka. She is a prolific writer in Kannada. She has written several short stories. Her stories deal with common lives and human values such as charity, kindness and self-realization. The story describes the determined efforts of an illiterate old lady Krishtakka to make herself literate.

#### Main characters in the story:

- Narrator ( 12 year old girl)
- Grandmother ( Krishtakka)

#### Blackboard Summary

##### Story Organizer:

Characters: **Narrator ( 12 year old girl)**

**Grandmother ( Krishtakka)**



Setting: When the author was a girl of about twelve, she used to stay in a village in North Karnataka with her grandparents. Since the transport system was not very good in those days, they used to get the morning newspaper not until the afternoon. The weekly magazine used to come in a day late. All of them would wait eagerly for the bus, which arrived with the newspapers, weekly magazine and the post.



**The problem:** At that time, Triveni was a very popular writer in the [Kannada](#) language and all the village people would wait eagerly for the weekly magazine '[Karmaveera](#)'. Impressed by the plot of *Kashi Yatre*, the author's grandmother Krishtakka would listen to the story as her granddaughter (the author) read the episodes to her as she was illiterate.



**The Problem Complicates:** But one day when the author returns from enjoying a week-long wedding with her cousins, she finds her grandmother in tears. When she asks her what the matter was, her grandmother narrates the story of her life to the author. She expresses her grief of getting married very early and therefore not getting a chance to receive an education. She explains that while the author was away, *Karmaveera* came in as usual. But she couldn't read a single alphabet and felt very embarrassed, helpless and dependent.



**The Solution:** After this, she firmly decides that she will learn to read the Kannada [alphabet](#) from the next day onwards and keep the day of [Saraswati Puja](#) as the deadline. As a result, from the next day the author started her tuition and found her grandmother to be a very intelligent and hardworking student. She diligently did her homework and slowly learnt to read, repeat, write and recite. The story ends as the author gives the gift to her grandmother and her grandmother is able to read the title *Kashi Yatre* by Triveni and the publisher's name aloud all by herself.

## **THE CHERRY TREE**

**-RUSKIN BOND**

### **About the Author:**

**Ruskin Bond** is an Indian author of British descent. Most of his works are influenced by life in the hill stations at the foothills of the [Himalayas](#), where he spent his childhood. He has contributed to children's literature in India for many years.

### **Synopsis:**

In *The Cherry Tree* by Ruskin Bond we have the theme of struggle, resilience, dedication, conflict, growth, responsibility and pride. It is a beautiful story which indirectly symbolizes human life and its struggle through Rakesh and his cherry tree. Rakesh threw a cherry seed and that started to shoot into a twig. He took care of it but was impatient to wait for its natural growth and so left it uncared. But with all its strong resilient power, the cherry tree wins over nature and starts to grow. Rakesh was delighted to see its growth and starts to take care of it again along with his grandfather. He was ecstatic to see the tree bloom with beautiful flowers and the thought

that he was going to get the fruit from the tree that he planted made him feel so great. The author has beautifully portrayed the beauty of the nature and climate of Mussoorie. Through the character of Rakesh, who is so kind towards his grandfather and the cherry tree, the author symbolically compares goodness to godliness.

### **Elements of the Prose – The Cherry Tree**

- **Characters** – Rakesh and his Grandfather
- **Setting** – Outskirts of Mussoorie
- **Point of view** – Third person, narrator or the author is telling the story.
- **Theme** – Care for animals and plants. It has underlying themes of Struggle, Dedication, Pride, Growth and Responsibility
- **Mood** – Feeling of love for nature and happiness
- **Plot** – Rakesh plants a seed that faces a lot of difficulties before growing into a cherry tree.

## **ON THE GRASSHOPPER AND THE CRICKET**

**-JOHN KEATS**

### **Summary:**

In this poem, the poet expresses the beauty of nature. He says that the music of the earth is always alive. During the summer all birds get tired due to the heat of the sun and take shelter under the shadow of trees. It is then that they stop singing the songs. The poet says, even then the song of nature can be heard. At that time, the grasshopper sings songs flying from one garden to another. He leads the way and sings the everlasting song of nature. During summer, he enjoys the pleasure of singing. When he gets tired with the fun, he rests beneath some weed.

The poet elaborates that the poetry of the earth never ends. During the winter season in the silent frosty evening, the birds stop singing songs. However, at that time, the cricket begins to sing and spreads the warmth of joy everywhere. The people who are half-sleep feel that it is the grasshopper song which is coming from the grassy hills.

Through this poem, the poet sends the message that nature is beautiful all the time, irrespective of the season. So, in a similar way, we should be joyful in our life and be happy in all situations, whether the conditions are in our favour or against us.

### **STRUCTURE OF THE POEM**

The whole poem is an example of sonnet. It consists of 14 lines. The rhyme scheme of the poem is abba abba (octave) and cdecde (sestet). The first 8 lines are called Octave and rest six lines are called sestet.

## **THE ANT EXPLORER**

**- C.J. DENNIS**

### **Synopsis:**

In this poem, the little ant travels across the Australian countryside and encounters so many natural things during her journey. Also, this poem reflects how this brave ant had a strong desire to see the world in spite of so many challenges which he faced throughout his journey.

Main character	A little sugar ant
Goal	To roam far away from home
Problem	He found her travel to be difficult & lonely
Solution	He turned around and went back
Outcome	Dreary and weary ant resolved to roam away from home no more.

## ATTILA

- R.K. NARAYAN

### Characters in the story:

#### Family:

- i) Youngest son ( Defender)
- ii) Eldest son
- iii) Mother ( Criticize)

"Attila" is a brilliant short story, written by the famous Indian author, R.K. Narayan. R.K. Narayan has depicted the story of a guard dog in this literary work.

### Summary

Attila is actually the name of the guard dog of a family. The family is worried that their dog might be not a good security guard material. They have had entrusted him with the role of protecting their property in their absence. However, Attila has turned out to be a pet dog with very timid and generous nature. He is easily wooed with good behaviour or treat. But to his fortune, the young member of the family is hellbent on supporting the innocent dog and likes to think him to be an actual guard dog.

The story takes a turn when the thief, Ranga, robs off the entire property of the family and runs off without getting a scratched from the supposed guard. If anything, Attila follows Ranga to his shelter and becomes Ranga's faithful pet. Much to Ranga's annoyance, the dog stays rooting for him wherever he goes.

The story reaches its end when the young defender of Attila sees him on the street accidentally. He thinks that the snooping detective instinct in the dog has followed the thief so that he would get caught. Attila is rewarded and honoured for his achievement even though it was not the case. Attila never wanted Ranga to be caught, in fact, he has never understood that Ranga may have done something wrong. The dog is too innocent for his own good. But, fortune helps him anyhow to regain his place in the family.

## THE GIANT ROC

### Short Summary:

Sindbad is one of the characters from the Arabian Nights, a collection of Middle Eastern stories narrated by Scheherazade, the wife of a Persian king named Shahryar. The tale is about a merchant called Sindbad (also spelled Sinbad), who lived during the third Islamic caliphate. The stories of Sindbad's adventures are filled with details of giant birds, sea monsters, whales as big as an island, goddesses, and evil fictional characters that are appealing to children and even adults.

### The Second Voyage – The Giant Roc

Sindbad was a merchant's son who travelled to many distant lands buying and selling goods. On one of the many voyages, the merchant ship stopped at a beautiful, tree-covered island where Sindbad decided to take a nap.

When he awoke he discovered that the ship had set sail without him! Looking for a way to get off the island he saw a large white dome. Just then a huge shadow fell over him. Looking up Sindbad saw a huge bird, called a Roc, and he realised that the white dome was actually the bird's egg. A brilliant idea came to him. "Let me tie myself to this bird's legs!" he thought. "Then, I can leave this island."

At daybreak when the Roc flew away over the sea, it carried Sindbad too. When it touched down Sindbad untied himself quickly before the Roc flew off again. He found himself in a valley full of diamonds, surrounded by steep mountains. Large serpents hid from the Roc in caves during the day and came out at night.

"Thud! Thud!!" Sindbad saw big chunks of meat landing on the valley floor. Merchants who wanted the diamonds were throwing them down from the ridges. They waited for the eagles to pick up the chunks of meat with the diamonds stuck on them, and take them to their nests from where the merchants would get the diamonds. Sindbad tied a piece of meat to himself. An eagle picked him up and carried him to its nest and in this way Sindbad escaped from the Valley of Diamonds.

## SCIENCE

### **SORTING MATERIAL INTO GROUPS**

Video link: <https://www.youtube.com/watch?v=gFGpyqZicOo>

The process of sorting and grouping objects/things according to some basis is called Classification. **Sorting makes study of large number of objects of different type easier, simple, systematic and convenient.**

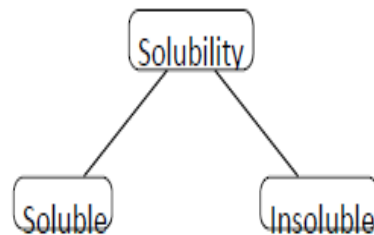
#### **1 Properties of materials**

Based on the different properties, materials can be differentiated into their respective groups. These are as follows:

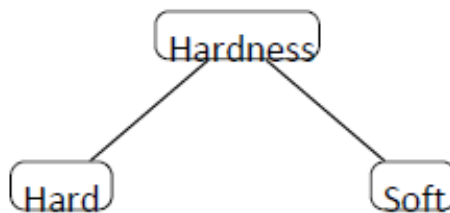
### 1. Appearance- Lustrous vs Non-lustrous materials



**2 Solubility:** . The solid substances that dissolve in water are called soluble substances e.g. salt, sugar etc. The solid substances that remain undissolved are called insoluble substances. e.g. sand, saw dust etc.



**3. Hardness:** . Soft materials are those which can be easily compressed or scratched. E.g.: Cotton, sponge. Hard materials are those which are difficult to compress. E.g.: Iron, stone, wood, diamond, etc.

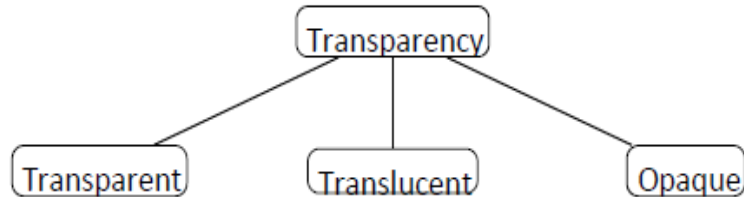


### 4 Transparency

Transparent objects are those objects through which things can be seen (i.e. **transparent objects allow the light to pass through them**). E.g.: Glass, water, air, some plastics etc.

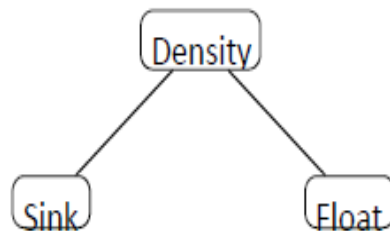
Translucent materials are those materials through which objects can be seen but not clearly. E.g.: Oiled paper( i.e. **translucent objects allow light to pass through partially**).

Opaque objects are those objects through which you are not able to see (i.e. **opaque objects do not allow the light to pass through them**). E.g.: Metals, cardboard, wood etc.



### 5 Density

Depending on their density, objects may float on the surface of the water or they might sink to the bottom. The objects with lower density float on the surface. E.g.: Wood, tree leaves etc. The objects with higher density sink to the bottom. E.g.: Pebbles, iron rod etc.



### Properties of materials

Appearance	Solubility	Hardness	Transparency	Density
Materials look different from each other.	<p><b>Soluble:</b> Materials which dissolve completely in water.</p> <p><b>Insoluble:</b> Materials which do not dissolve in water.</p>	<p><b>Soft:</b> Materials which can be compressed or scratched easily.</p> <p><b>Hard:</b> Materials which are difficult to compress.</p>	<p><b>Transparent:</b> Materials through which things can be seen clearly. Light passes completely through it.</p> <p><b>Translucent:</b> Materials through which things can be seen, but not clearly. It allows light to pass through partially.</p>	<p><b>Float:</b> Some materials float on the surface of the water. (The material which float on water have less density than water.)</p> <p><b>Sink:</b> Some materials sink to the bottom of water. (The materials which sink in</p>



			<p><b>Opaque:</b> Materials through which things cannot be seen.  It does not allow light to pass through it.</p>	water have more density than water.)
Example: Metals have lustre, wood does not have lustre.	<p><b>Soluble:</b> Example: Sugar and salt dissolve in water. <b>Insoluble:</b> Example: Sand and sawdust doesn't dissolve in water.</p>	<p><b>Soft:</b> Example: Cotton and rubber. <b>Hard:</b> Example: Iron and steel.</p>	<p><b>Transparent:</b> Example: Glass. <b>Translucent:</b> Example: Wax paper. <b>Opaque:</b> Example: Wood.</p>	<p><b>Float:</b> Example: Tree leaves. <b>Sink:</b> Example: Pebbles.</p>

## Chapter summary

### GETTING TO KNOW PLANTS

**Video link:** <https://www.youtube.com/watch?v=hZdbJFmEFtY>

#### Types of plants

1. **Herbs:** These are plants that have green and frail stems. Usually, these are small plants with not many branches. Some common examples of herbs are Basil, Coriander, Mint, Oregano, Thyme, Parsley, Rosemary etc.
2. **Shrubs:** These are plants with hard but not exactly thick stems. Their branches generally originate from the base of their stems. These are much taller than herbs but usually shorter than trees. Some common examples of shrubs are Hibiscus, Rose plant, Jasmine plant etc.
3. **Trees:** These are plants which are very tall and have a thick and hard stem. The branches originate from the upper part of the tree and are very high above the ground. Some common examples of trees are banyan tree, neem (margosa), peepal (scared fig), coconut tree, mango tree etc.
4. **Creepers:** These are plants which have soft, weak and green stems and hence cannot stand straight and instead spread on the ground. Some common examples are sweet potato, watermelon, pumpkin etc.
5. **Climbers:** These are also plants with soft and weak stems but instead of spreading on the ground they take support with a nearby object to climb up. Some common examples of creepers are cucumber, bean, grapevine, money-plant etc.

#### Parts of a Leaf

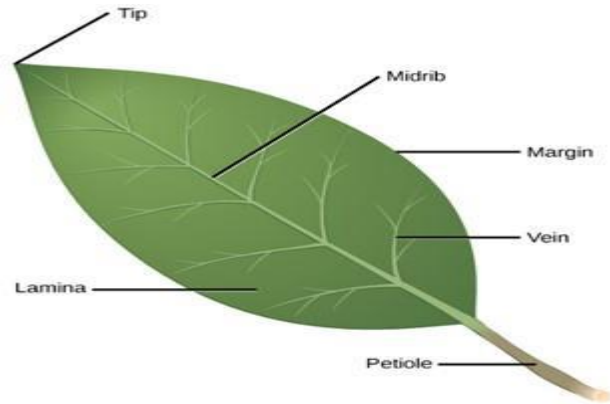


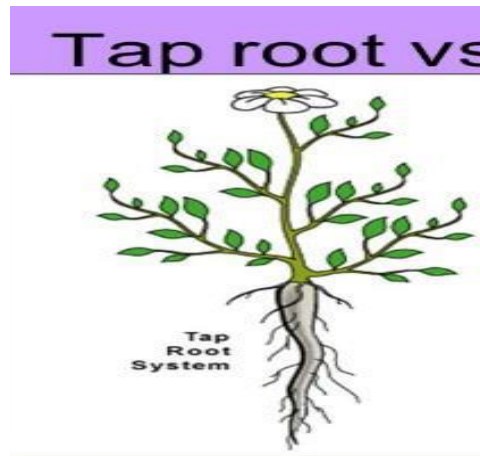
Figure 1: A labelled diagram of a leaf

1. **Petiole:** This is the stalk via which the leaf is joined to the plant.
2. **Lamina:** This is the expanded part or the green portion of any leaf which is responsible for photosynthesis.
3. **Veins:** The many lines that run through the surface of the leaf are called veins and the design made by them is called leaf venation. They transport water and minerals.
4. **Midrib:** This is the central, prominent thick structure right in the middle of the leaf that helps support the leaf and prevent it from breaking.

### Venation in leaves

**The design made by veins in a leaf is called the leaf venation.** There are two types of leaf venation:

1. **Reticulate Venation:** Reticulate venation is said to exist when the veins form a **net-like shape** on either side of the midrib. This type of venation is seen in guava and mango etc. **Reticulate venation leaf plants have tap roots.**



2. **Parallel Venation:** Parallel venation is said to exist when **the veins run parallel to one another.** This type of venation is seen in banana, wheat, coconut etc. **Parallel venation leaf plants have fibrous roots.**

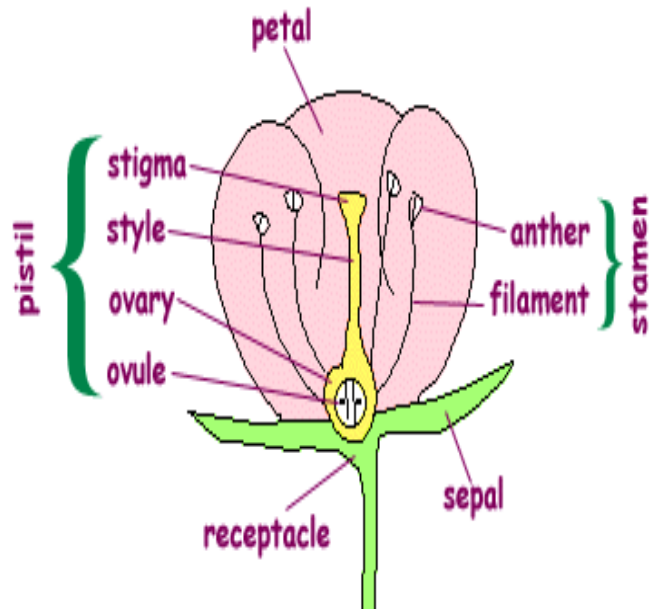


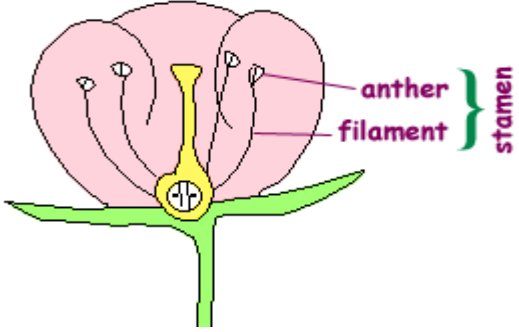
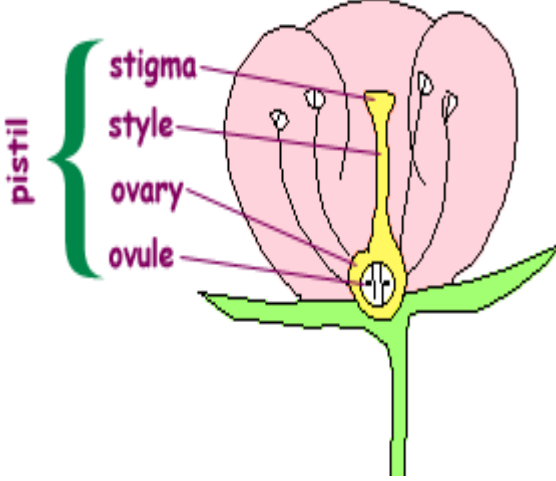
## FLOWER

The flowers are the colourful, seed-bearing reproductive parts of the plant.

### A complete flower has all four parts.

1. Sepal- : This is the green, leaf-like structure of the flower that encloses the petals and is responsible for protecting the flower when it is in its bud form and supporting it when it is in its bloom stage.
2. Petal- These are bright, colourful and broad parts of the flower. Petals are colourful and fragrant to attract insects for pollination.
3. Stamen- The stamen is also known as the male reproductive part of the plant. A stamen consists of an anther i.e. the head of the stamen and a filament. Pollen grains are present in the anther.
4. Pistil- It is the female reproductive part of any flower. It has a stigma i.e. the head of the pistil, a style, which is the long sticky part that attaches the stigma to the ovary. The ovary contains small bead-like structures which are called ovules.



<p><b><u>Male flower</u></b></p> <ul style="list-style-type: none"> <li>• Male Stamen <ul style="list-style-type: none"> <li>– Anther: produces pollen</li> </ul> </li> </ul>	
<p><b><u>Female flower</u></b></p> <ul style="list-style-type: none"> <li>• Female Carpel/Pistil <ul style="list-style-type: none"> <li>– Inner most part</li> <li>– Ovary: within the base <ul style="list-style-type: none"> <li>• Contains eggs</li> <li>• Grows into fruit when fertilized</li> </ul> </li> <li>– Stigma: sticky tip, collects pollen</li> </ul> </li> </ul>	

**Pollination** is the process that allows plants to reproduce. Seeds and fruits are formed as the result of pollination. **After pollination ovary becomes the fruit and ovules become the seeds.**

## Chapter summary

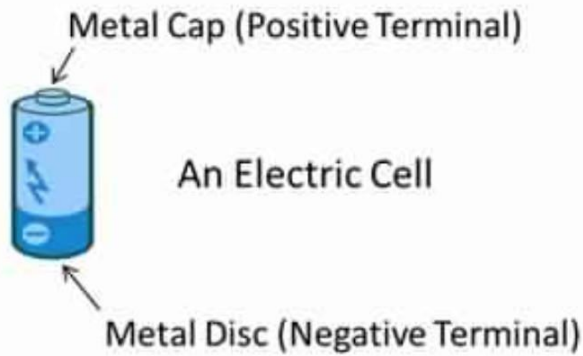
### ELECTRICITY AND CIRCUITS

#### **Renewable and non-renewable resources which provide electricity:**

**All sources of renewable energy are used to generate electric power.** In addition, geothermal steam is used directly for heating and cooking. Biomass and solar sources are also used for space and water heating. **Solar, wind, hydroelectric, biomass, and geothermal power** can provide energy without the planet-warming effects of fossil fuels

Non renewable energy resources include **coal, natural gas, oil, and nuclear energy.** Once these resources are used up, they cannot be replaced, which is a major problem for humanity as we are currently dependent on them to supply most of our energy needs.

**ELECTRIC CELL:** An electric cell is a device which produces electricity capable to run smaller appliances like torch, clock, camera, radio etc. An electric cell has two terminals – positive (+) and negative (-). Positive side of an electric cell has a metal cap. When the two terminals are connected to an electrical device, electric current flows through it.



### **ELECTRIC SWITCH:**

Switch is a simple device which breaks or completes a circuit. When the switch is 'on', the circuit is complete. When the switch is 'off', current does not flow in the circuit. So an electric appliance will only work if the switch is 'on'.

**ELECTRIC BULB:** An electric bulb refers to an electric lamp which consists of a translucent or transparent glass case with a filament. On lighting the bulb the filament is heated and glows to produce light. An electric bulb produces both heat and light. The filament is made of **tungsten**.



### **ELECTRIC CIRCUITS:**

A circuit is **the path that an electric current travels on**.

An arrangement of various electrical components such as a bulb, switch, wires, battery makes an **electric circuit**.

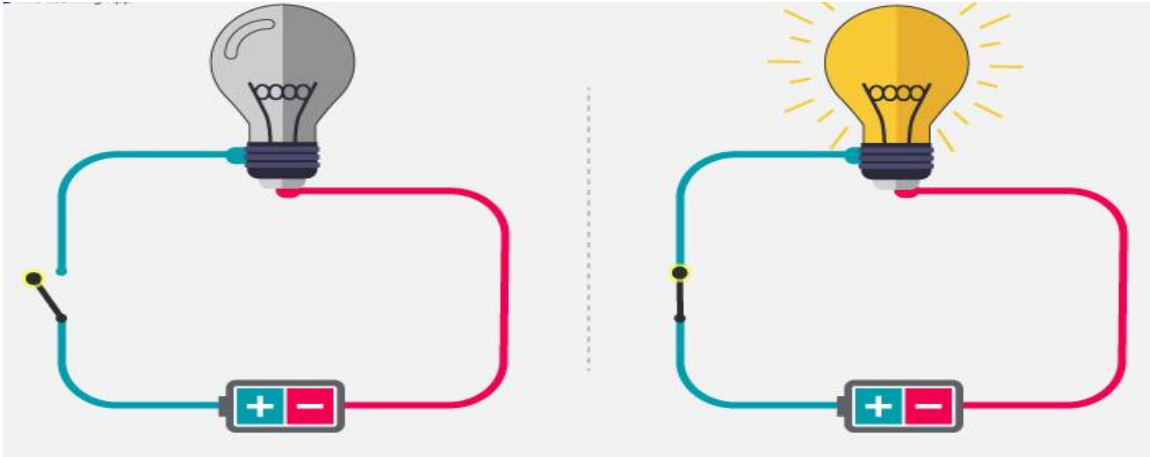
**The direction of flow of current in an electric circuit is from the positive terminal of the cell to the negative terminal.**

**Jute, rubber, plastic and wood are bad conductors of electricity** therefore if they are used in place of wires to make an electric circuit, then the current will not flow through it.

There are two kinds of electric circuits:

1. **Open circuit:** A circuit which does not allow the current to pass through it is called an open circuit.

2. **Closed circuit:** A circuit which allows the electric current to pass through it is called a closed circuit.



**Open Circuit**

**Closed Circuit**

**ELECTRIC SYMBOLS:**

It is really difficult to draw electric components as their image every time we want to represent a circuit. Therefore, instead of using component images, we use some symbols in their place. These symbols are called **electrical symbols**.

Component	Symbol	Purpose
Cell (Battery)		Provides electrical energy
Power supply		Can be used in place of cells
Wire		Allows current to pass through it
Bulb/light		Converts electrical energy into heat and light
Switch		Allows circuit to be opened or closed

Some electric symbols

**ELECTRIC INSULATORS AND CONDUCTORS:**

On the basis of passage of electricity, materials can be classified into two broad categories:

1. **Conductors:** Materials which allow electricity to pass through them are called electric conductors. Most metals are good conductors of electricity. For example: Electric wires are made using copper and iron. *Note: Our body is also a conductor of electricity.*

2. **Insulators:** Materials which do not allow electricity to pass through them are called electric insulators. Most non metals like wood and rubber are insulators of electricity. For example: Gloves for electricians are made using rubber.



## MATHS

### **Integers**

Set of positive numbers, zero and negative numbers is known as integers.

..., -5, -4, -3, -2, -1, 0, 1, 2, 3, 4, 5, ...

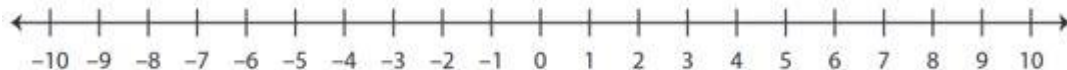
1, 2, 3, 4, 5, ... are known as positive integers.

-1, -2, -3, -4, -5 are known as negative integers

The number zero is an integer. It is neither positive nor negative.

### **Integers on the Number Line**

Let's draw a line and mark a point in the middle of it. We number this point with zero.



We mark equal distances on the right as well on the left of zero. On the right side of zero label the points with numbers 1, 2, 3, 4, 5, ... and on the left side of the zero label the points with numbers -1, -2, -3, -4, -5, ....

So, we can represent all the integers on a number line as shown in the above figure.

### **Ordering of Integers**

Between two given integers, the integer occurring on the right side on the number line is greater than that occurring on the left side.

For Example.

$5 > 2$ , since 5 is to the right of 2.

$3 > 0$ , since 3 is to the right of 0.

$0 > -2$ , since 0 is to the right of -2.

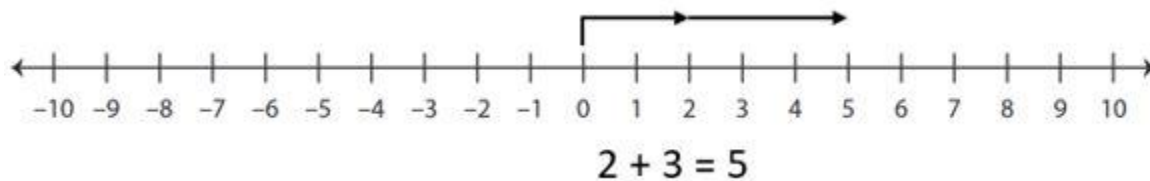
$-5 > -8$ , since -5 is to the right of -8.

Some basic rules are provided below.

1. Every positive integer is greater than zero.
2. Zero is greater than every negative integer.
3. Every positive integer is greater than every negative integer.

#### Addition of Integers Using Number Lines

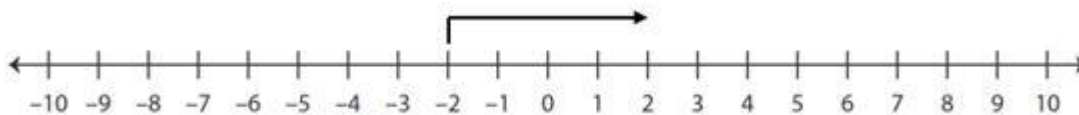
We have already known how to add two whole numbers using number lines. Let's see some examples.



Let's extend this method of addition of whole numbers to the integers.

**Example 1.** Add  $-2$  and  $4$ .

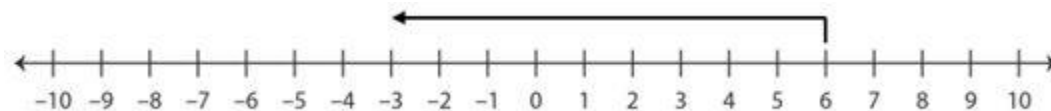
**Solution.** On the number line, we start from  $-2$  and move 4 steps to the right of  $-2$ .



We end up at  $+2$  or  $2$ .  
Therefore,  $-2 + 4 = 2$ .

**Example 2.** Add  $6$  and  $-9$ .

**Solution.** On the number line, we start from  $6$  and move 9 steps to the left of  $6$ .

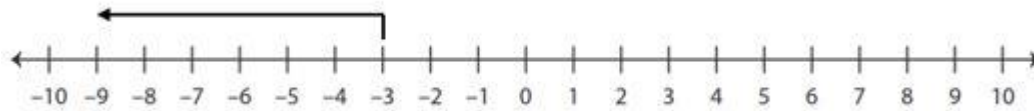


We end up at  $-3$ .  
Therefore,  $6 + (-9) = -3$ .

**Example 3.** Add  $-3$  and  $-6$ .

**Solution.** On the number line, we start from  $-3$  and move 6 steps to the left of  $-3$ .





We end up at  $-9$ .

Therefore,  $-3 + (-6) = -9$ .

Addition of two like integers

When integers have same signs, we add their absolute values and assign the same sign to the sum. Let's see some examples.

**Example 1.** Add  $+4$  and  $+5$ .

**Solution.**  $(+4) + (+5) = + \{|+4| + |+5|\} = + \{4 + 5\} = +9$

**Example 2.** Add  $-5$  and  $-8$ .

**Solution.**  $(-5) + (-8) = - \{|-5| + |-8|\} = - \{5 + 8\} = -13$

Addition of unlike integers

When integers have different signs, we determine the difference of their absolute values, and assign the sign of the integer having greater absolute value. Let's see some examples.

**Example 1.** Add  $-7$  and  $19$ .

**Solution.** Absolute value of  $-7 = |-7| = 7$

Absolute value of  $19 = |+19| = 19$

Difference of absolute values is  $19 - 7 = 12$

Since the integer with greater absolute value is  $+19$ , and its sign is  $+$ .

$(-7) + (+19) = +12$

**Example 2.** Add  $-25$  and  $+5$ .

**Solution.** Absolute value of  $-25 = |-25| = 25$

Absolute value of  $+5 = |+5| = 5$

Difference of absolute values is  $25 - 5 = 20$

Since the integer with greater absolute value is  $-25$ , and its sign is  $-$ .

$$(-25) + (+5) = -20$$

### Properties of Addition

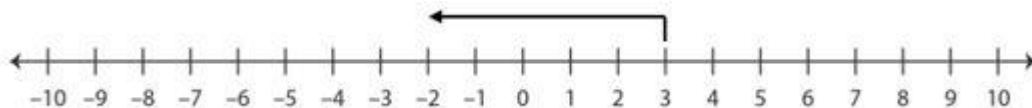
1. If 'a' and 'b' are any two integers, then  $a + b$  is also an integer.
2. If 'a' and 'b' are any two integers, then  $a + b = b + a$ .
3. If 'a', 'b' and 'c' are any three integers, then  $a + (b + c) = (a + b) + c$
4. If 'a' is in integer, then  $a + 0 = 0 + a = a$ .
5. The sum of any integer and it's opposite integer (known as additive inverse) is zero.  $a + (-a) = 0$
6. If  $a > b$ , then  $a + c > b + c$  and if  $a < b$ ,  $a + c < b + c$ , where a, b, c are any integers.

### Subtraction of Integers Using Number Lines

To subtract a positive integer, we must move to the left on the number line. Let's see some examples.

**Example 1.** Subtract 5 from 3.

**Solution.** On the number line, we start from 3 and move 5 steps to the left of 3.

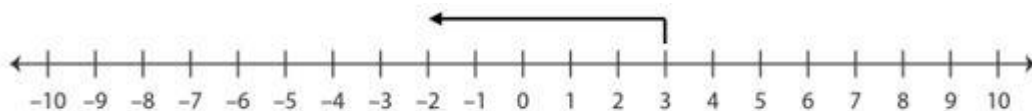


We end up at -2.

Therefore,  $3 - 5 = -2$ .

**Example 2.** Subtract 6 from -2.

**Solution.** On the number line, we start from -2 and move 6 steps to the left of -2.



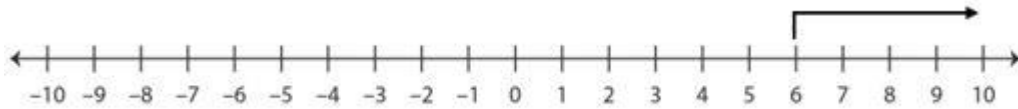
We end up at -8.

Therefore,  $-2 - 6 = -8$ .

To subtract a negative integer, we must move to the right on the number line. Let's have a look at some examples.

**Example 1.** Subtract  $-4$  from  $6$ .

**Solution.** On the number line, we start from  $6$  and move  $4$  steps to the right of  $6$ .

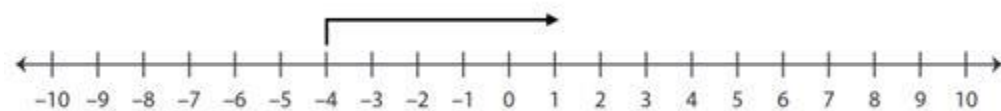


We end up at  $10$ .

Therefore,  $6 - (-4) = 6 + 4 = 10$ .

**Example 2.** Subtract  $-5$  from  $-4$ .

**Solution.** On the number line, we start from  $-4$  and move  $5$  steps to the right of  $-4$ .



We end up at  $1$ .

Therefore,  $-4 - (-5) = -4 + 5 = 1$ .

Subtraction of Integers

Subtraction of one integer from another integer is same as adding the additive inverse of the integer that is being subtracted to the other integer. Let's see some examples.

**Example 1.** Subtract  $6$  from  $15$ .

**Solution.** Additive inverse of  $6$  is  $-6$ .

$$15 - 6 = 15 + (-6) = 9.$$

**Example 2.** Subtract  $5$  from  $-7$ .

**Solution.** Additive inverse of  $5$  is  $-5$ .

$$-7 - 5 = -7 + (-5) = -12.$$

**Example 3.** Subtract  $-232$  from  $-165$ .

Solution.  $-165 - (-232) = -165 + 232 = 67$

## संस्कृत

प्रश्न 1. अधोलिखितं गद्यांशं पठित्वा प्रश्नान् उत्तरत -

(5)

स्वामी विवेकानन्दः अमरिकादेशे भारतीयसंस्कृत्याः प्रचारं करोति स्म । कश्चन श्रोता उपहास पूर्वकं उक्तवान् - "अहो भारतीयसंस्कृत्याः विसंगतिः" । लक्ष्म्याः वाहनं उलूकः सरस्वत्याः वाहनं हंस इति । विवेकानन्दः अवदत् - एष एव अस्माकं भवतां मध्ये दृष्टिभेदः । धनदीनाः जनः उलूकवत् आचरति । विवेकम आश्रितः नरः विद्वान् भवति अतएव सरस्वत्याः वाहनं हंसः लक्ष्म्याः वाहनं उलूकः इति ।

(क) एकपदेन उत्तरत दीयते -

1. स्वामी विवेकानन्दः कुत्र भारतीयसंस्कृतेः प्रचारं करोति स्म ?
2. धनाश्रितः जनः कथं आचरति ?
3. कम आश्रितः नरः विद्वान् भवति ?
4. उलूकः कस्याः वाहनम् ?

(ख) पूर्णवाक्येन उत्तरत -

1. श्रोता उपहासपूर्वकं किम् उक्तवान् ?

प्रश्न 2 निम्नलिखित शब्दों से प्रत्यय अलग कीजिए।

1 पठित्वा = \_\_\_\_\_

2 श्रुत्वा = \_\_\_\_\_

3 गत्वा = \_\_\_\_\_

4 हसित्वा = \_\_\_\_\_

5 लिखित्वा = \_\_\_\_\_

प्रश्न 3 निर्देश के अनुसार परिवर्तन करें।

1 अहं नृत्यामि - ( बहुवचन ) \_\_\_\_\_

2 त्वम् पठसि - ( बहुवचने ) \_\_\_\_\_

3 युवाम गच्छथः - ( एकवचन ) \_\_\_\_\_

4 अस्माकं पुस्तकानि - ( एकवचन ) \_\_\_\_\_

5 तव गृहं - ( द्विवचन ) \_\_\_\_\_

प्रश्न 4 उचित पद को चुन कर वाक्य निर्माण कीजिये ।

( मम , तव , आवयोः , युवयोः , अस्माकं , युष्माकं )

( क ) एतत् \_\_\_\_\_ गृहं ।

( ख ) \_\_\_\_\_ मैत्री दृढा ।

( ग ) एषः \_\_\_\_\_ विद्यालयः ।

( घ ) एषा \_\_\_\_\_ अध्यापिका ।

( ङ ) भारतं \_\_\_\_\_ देशः ।

( च ) एतानि \_\_\_\_\_ पुस्तकानि ।

प्रश्न 5 निम्नलिखित शब्दानां वर्ण विच्छेदं कुरुत -

1. पावकः
2. उपगङ्गम्
3. पठित्वा
4. वक्तुम्
5. हसितुं
6. शोभनम्
7. शृङ्गारः

## 8. हिंदी व्याकरण

### 9. संज्ञा

10. [https://youtu.be/y1kG0sO\\_0C4](https://youtu.be/y1kG0sO_0C4)

11. Note- please refer to the above given link to study the chapter before answering the following assignment

12.

13. **अधिगम बिंदु:** संज्ञा शब्दों का ज्ञान |

14. संज्ञा भेदों के अंतर के ज्ञान में वृद्धि |

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15.

16. **संज्ञा** (Noun) – किसी प्राणी, वस्तु, स्थान, गुण व भाव के नाम को बोध कराने वाले शब्द को संज्ञा कहते हैं।

17. हिन्दी व्याकरण में संज्ञा के मुख्य रूप 3 भेद होते हैं।

18.

**19.1.व्यक्तिवाचक संज्ञा**

**20.2.जातिवाचक संज्ञा**

**21.3.भाववाचक संज्ञा**

22.

**23.1. व्यक्तिवाचक संज्ञा (Proper Noun)**

24. जिस शब्द से किसी विशेष व्यक्ति, स्थान अथवा वस्तु का बोध हो, उसे व्यक्तिवाचक संज्ञा कहते हैं। जैसे-महात्मा गाँधी, प्रयागराज, लाल क़िला आदि।

25. Note: व्यक्तियों, नदियों, झीलों, सगरो, पहाणों, नगरों, गावों, देशों, महीनों आदि के नाम व्यक्तिवाचक संज्ञा होते हैं।

26.

**27.2. जातिवाचक संज्ञा (Common Noun)**

28. जिन संज्ञा शब्दों से किसी जाती का बोध होता है, उसे जातिवाचक संज्ञा कहते हैं। जैसे-पुरुष, गावं, ईमारत आदि।

29.

**30.3. भाववाचक संज्ञा (Abstract Noun)**

31. जिन संज्ञा शब्दों से किसी प्राणी अथवा पदार्थ के गुण-दोष, या भाव का बोध हो उसे भाववाचक संज्ञा कहते हैं।

32. जैसे-बचपन, ईमानदार, हंसी, मोटापा, सुन्दरता आदि।

33. (उपर्युक्त उदाहरण में यह स्पष्ट दिख रहा है कि इसमें किसी के गुण-दोष अथवा भाव को दिखाया गया है)

34. नोट: भाववाचक संज्ञा को छुआ या देखा नहीं जा सकता है।

35.

**36.**

**37.असाइनमेंट**

38. पत्र लेखन : समय का सदुपयोग समझाते हुए छोटे भाई को पत्र लिखिए।

# **SOCIAL SCIENCE**

What is Government?

- Government is the group of people with the authority to govern a country or state.

## **Work of a Government**

- It makes decisions and gets things done.
- The government also takes action on many social issues.
- It does other important things such as running postal and railway services.
- Protecting the boundaries of the country and maintaining peaceful relations with other countries.
- It is responsible for ensuring that all its citizens have enough to eat and have good health facilities.
- It is the government that mainly organizes aid and assistance for the affected people during a tsunami and earthquakes.
- If there is a dispute or if someone has committed a crime you find people in a court, a part of the government.

## **How various tasks are performed by the Government**

- Governments do this on behalf of their people by exercising leadership, taking decisions and implementing these among all the people living in their territory.

## **Levels of a Government**

- Local Level: Governments in village, town or locality.
- State Level: Governments that covers an entire state like Haryana or Assam.
- National Level: Government for the entire nation.

## **Laws and the government**

- The government makes laws and everyone who lives in the country has to follow these.
- Without these laws the government's power to make decisions is not of much use.

## **Types of Government**

### **Monarchy**

- This is a form of government in which the king or queen has the power to make decisions and run the government.
- The monarch has a small group of people to discuss matters with, but the final decision-making power remains with the monarch.

## **Democracy and Democratic government**

- Democracy is ruled by the people.

→ The basic idea is that people rule themselves by participating in the making of these rules.

## **Representatives Democracies**

- It is a type of democracy in which people do not participate directly but, instead, choose their representatives through an election process.

## **Voting Rights**

- In their earliest forms governments allowed only men who owned property and were educated, to vote.

## **Universal adult franchise**

- A government cannot call itself democratic unless it allows what is known as a universal adult franchise.
- This means that all adults in the country are allowed to vote.

# **Chapter 2: Globe-Latitude and Longitude**

## **Introduction**

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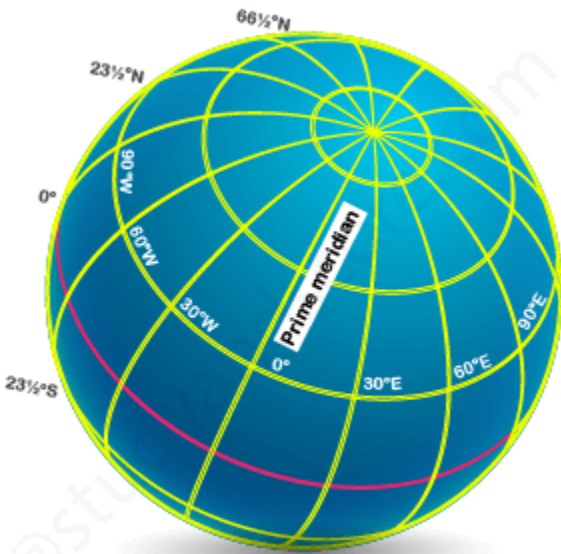
- Our earth is slightly flattened at the North Pole & South Pole and bulged in the center
- Globe is the true miniature form or the model of our earth. A needle is fixed through the center of the globe in a tilted manner, which is called as axis.





**THE GLOBE**

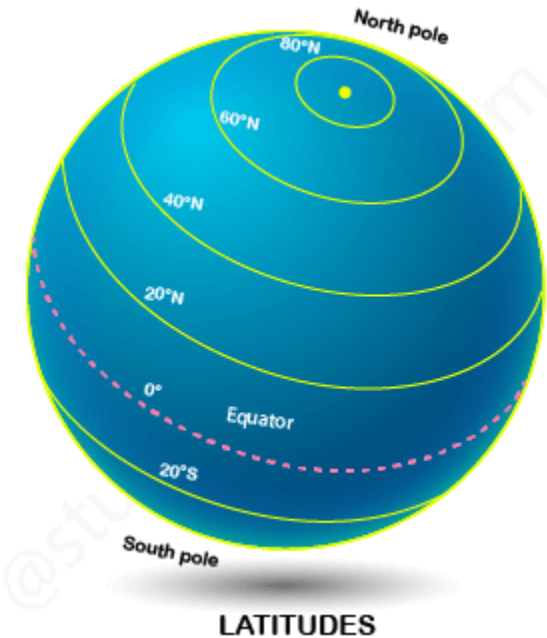
- Earth moves from West to East.
- Earth's axis is an imaginary line which passes through the North Pole and South Pole around which the earth spins.
- It is inclined by 66.5 degrees from the earth's orbital plane, which means that it is tilted 23.5 degrees from a vertical 90 degrees.



**THE GRID**

- Generally, an axis is an imaginary or physical line which prescribes an objects movement. An axis also includes a point that is known as Center of Gravity.

- Another imaginary line which divides the earth into two equal parts running through the middle of the globe is called Equator.
- The north half of the equator is called as Northern Hemisphere. The south half of the equator is called as Southern Hemisphere. They are both equal halves.
- All parallel lines from the equator to the poles on the globe are called as Parallels of Latitudes. Latitudes are measured in Degrees.



- As we move away from the equator, the size of the parallels of the latitude decreases.
- All parallels to the north of equator are called north latitudes and all parallels to the south of the equator are called South latitudes.
- Since the distance from the equator to each of the poles is 1/4th of a circle round the earth, it will measure 1/4th of 360 degrees. Thus 90° North latitude marks the North Pole and 90° south latitude marks the South Pole.
- By measuring the angle of the pole star from your place you can know the latitude of your place

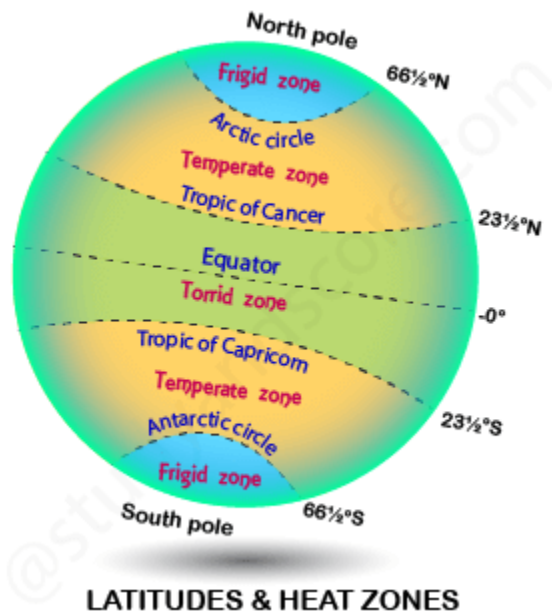
## Important Parallels of Latitude

- Besides the equator (0°), the North Pole (90°N) and the South Pole (90° S), there are four important parallels of latitudes–
1. Tropic of Cancer (23½° N) in the Northern Hemisphere

2. Tropic of Capricorn ( $23\frac{1}{2}^{\circ}$  S) in the Southern Hemisphere
3. Arctic Circle at  $66\frac{1}{2}^{\circ}$  north of the equator
4. Antarctic Circle at  $66\frac{1}{2}^{\circ}$  south of the equator

## Heat zones of the Earth

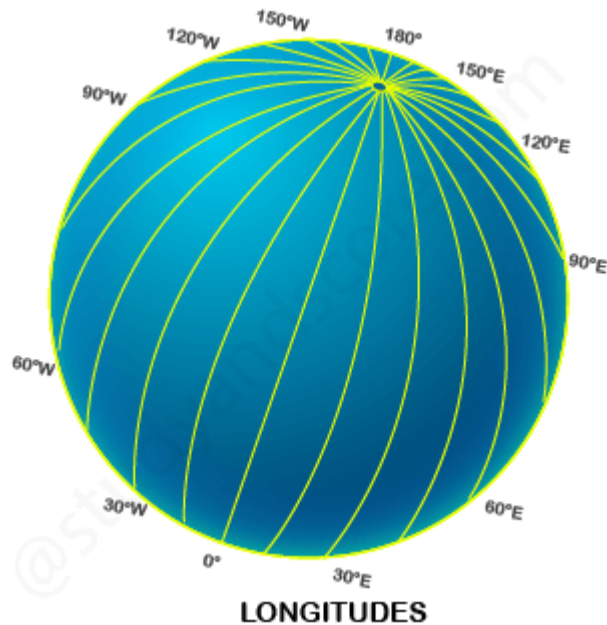
- The mid-day sun is exactly overhead at least once a year on all latitudes in between the Tropic of Cancer and the Tropic of Capricorn. Therefore, this area receives the maximum heat and is called the **Torrid Zone**.



- The mid-day sun never shines overhead on any latitude beyond the Tropic of Cancer and the Tropic of Capricorn. The angle of the sun's rays goes on decreasing towards the poles.
- The areas bounded by the Tropic of Cancer and the Arctic Circle in the Northern Hemisphere and the Tropic of Capricorn and the Antarctic Circle in the Southern Hemisphere have moderate temperatures. Therefore, these areas are called **Temperate Zones**.
- Areas lying between the Arctic Circle and the North Pole in the Northern Hemisphere and the Antarctic Circle and the South Pole in the Southern Hemisphere, are very cold.
- It is because here the sun does not raise much above the horizon. Here the sun rays are always slanting. Therefore, these areas are called **Frigid Zones**.

## Longitudes of the Earth

- The line of reference running from the North Pole to the South Pole is called **meridians of longitude** and the distance between them are measured in degrees of longitudes. Each degree is further divided into minutes, and minutes into seconds.
- They are semi-circles and the distance between them decreases steadily pole wards until it becomes zero at the poles, where all the meridians meet.



- The parallels of latitude are unequal in length and all the meridians are of equal length. Thus, it was difficult to number the meridians. Hence, all countries decided that the count should begin from the meridian which passed through Greenwich, where the British Royal Observatory is located.
- This meridian is called the **Prime Meridian**. Its value is  $0^\circ$  longitudes and from it we count  $180^\circ$  eastward as well as  $180^\circ$  westward. The Prime Meridian divides the earth into two equal halves, the Eastern Hemisphere and the Western Hemisphere.  $180^\circ$  East and  $180^\circ$  West meridians are on the same line.

## Longitude and Time

- The best means of measuring time is by the movement of the earth, the moon and the planets.
- When the Prime Meridian of Greenwich has the sun at the highest point in the sky, all the places along this meridian will have mid-day or noon.
- As the earth rotates from west to east, those places east of Greenwich will be ahead of Greenwich time and those to the west will be behind it.

- The rate of difference can be calculated as follows. The earth rotates  $360^\circ$  in about 24 hours, which means  $15^\circ$  an hour or  $1^\circ$  in four minutes. Thus, when it is 12 noon at Greenwich, the time at  $15^\circ$  east of Greenwich will be  $15 \times 4 = 60$  minutes, i.e., 1 hour ahead of Greenwich Time, which means 1 p.m.
- But at  $15^\circ$  west of Greenwich, the time will be behind Greenwich time by one hour, i.e., it will be 11.00 a.m. Similarly, at  $180^\circ$ , it will be midnight when it is 12 noon at Greenwich.

## **Need for standard time**

- The local time of the places which are on different meridians is bound to differ. For example, it will be difficult to prepare a time-table for trains which cross several longitudes. In India, for instance, there will be a difference of about 1 hour and 45 minutes in the local times of Dwarka in Gujarat and Dibrugarh in Assam.
- It is, therefore, necessary to adopt the local time of some central meridian of a country as the standard time for the country. In India, the longitude of  $82\frac{1}{2}^\circ$  E ( $82^\circ 30'$ E) is treated as the standard meridian. The local time at this meridian is taken as the standard time for the whole country. It is known as the Indian Standard Time (IST).
- Some countries have a great longitudinal extent and so they have adopted more than one standard time. For example, in Russia, there are as many as eleven standard times. The earth has been divided into twenty-four time zones of one hour each. Each zone thus covers  $15^\circ$  of longitude.