



TOPIC- AIR, WATER AND WEATHER

NAME - _____ CLASS IV/ SEC _____ DATE – 18/01/2021-22/01/2021

LEARNING OBJECTIVES:

Each child will be able to:

- define and explain the process of evaporation and condensation.
- demonstrate the method of removing insoluble impurities through sedimentation, decantation and filtration.
- express in his /her own words the formation of underground water.

Time to Ponder!!

How do clothes dry?

The floor dries by itself after we mop it.

Let's understand this through an activity.

Let's Observe!!

Procedure:

1. Fill two identical (transparent) jars with equal amount of water.
2. Keep one of them uncovered and cover the other one first with aluminium foil and then tightly close its lid.
3. Now, take both the jars outside and keep them at equally sunny spot.
4. Observe the jars for four consecutive days and mark the water level using a permanent marker every day.

Share your observation in the class.

- **The process of change of water into water vapours due to heating is called evaporation.**
- **The sun slowly heats the water on the surface of the earth and changes it into water vapour.**
- **The amount of water vapours present in the air is called humidity.**



Take two towels of equal size and wet them. Hang them outside to dry as shown in the picture. Observe which one dries faster?



Evaporation takes place faster in presence of:

- strong wind
- the large exposed surface of the water
- high temperature
- dry air

ACTIVITY- Observe the given pictures carefully. This glass filled with cold water, leaf and window pane ... all have tiny droplets of water on them. WHY?



CONDENSATION

When water vapour cools down it changes into drops of water. In nature, water can be condensed in the form of fog, dew, frost, hail or snow.

Let's Revise:

<https://www.youtube.com/watch?v=e27UguK78C4&t=51s>

ACTIVITY- LEARNING BY DOING

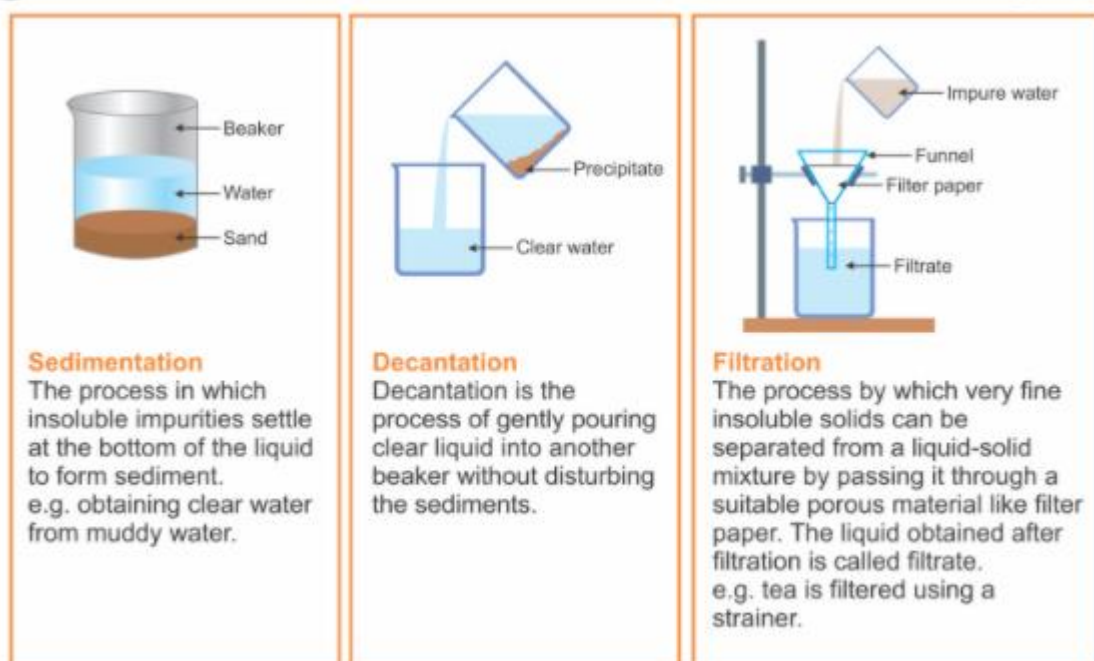
Take 6 glasses each filled half with water. Put 1 teaspoon of each in the glasses- salt, sugar, oil, lemon juice, mud, pulses. Stir them with a spoon. Write the names of things which dissolve in water and ones which do not dissolve under soluble and insoluble column respectively.

SOLUBLE	INSOLUBLE

Water found in nature is impure due to many soluble and insoluble impurities. That is why we should not drink the water from wells, rivers, etc without treating it.

In the above activity, we mixed sand in water. Now, can you try to separate mud from water? Follow these simple steps:

1. Leave the mixture of water and sand undisturbed till the sand gets settled down.
2. Now slowly pour the clear water into another glass.
3. To remove the small particles of sand filter the water using a muslin cloth or filter paper.

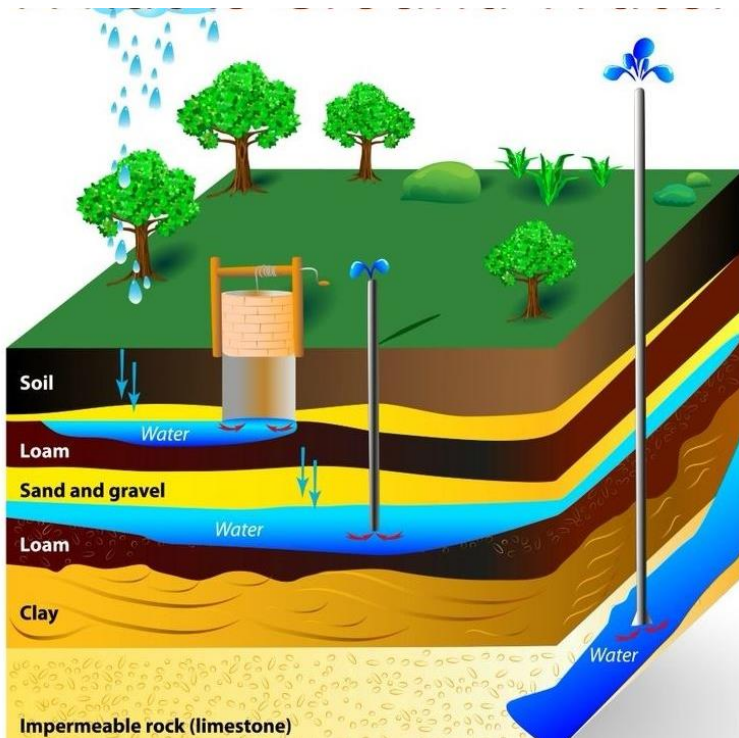


REFERENCE:

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

<https://www.youtube.com/watch?v=e27UguK78C4>

UNDERGROUND WATER



Water is also present below the ground as underground water.

When it rains, water seeps through the various layers of soil to become underground water.

The level of underground water in an area is called a water table.

Let's Revise (To be done in the notebook.)

Q1. Fill in the blanks.

- Air should be _____ (dry/humid) for fast evaporation.
- Water evaporates _____ (faster/slower) when it is spread on a large surface.
- _____ is change of water vapour into water on cooling.
- _____ (soluble/insoluble) impurities can be separated through sedimentation.

Q2. Give an example of sedimentation and decantation from everyday life.

Q3. Define:

a. Evaporation

b. Water table

Q4. During winters, we often see water drops on parked cars. Why?

Q5. Write the conditions required for fast evaporation.

Q6. Give any three examples of condensation from your experiences.