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STUDY MATERIAL SCIENCE

CLASS-VII

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▸ Soil

Percolation Rate of Water in Soil :

Soil is porous, i.e. it has tiny pores in it. When water is poured over it, then some water gets absorbed in the soil and rest passes down the soil. The process of passing down water slowly through the soil is called **percolation of water**. **Percolation rate** is the amount of water (in mL) that is percolated through the soil in unit time, i.e. in minutes. The percolation rate differs in different soil types.

The rate of percolation can be calculated by using the following formula:

Percolation rate (mL/min) = $\left(\frac{\text{Amount of water (mL)}}{\text{Percolation time (min)}}\right)$

Example: if water in bottle 'A' percolates in 20 min, in 'B', it percolates in 15 min in bottle. While in bottle 'C', it percolates in 25 min, then the percolation rate (mL/min) will be calculated as follows:

For bottle 'A', Rate of percolation = $\left(\frac{200 \text{ mL}}{20 \text{ min}}\right) = 10 \text{ mL/min}$

For bottle 'B' Rate of percolation = $\left(\frac{200 \text{ mL}}{15 \text{ min}}\right) = 13 \text{ mL/min}$

For bottle 'C', Rate of percolation = $\left(\frac{200 \text{ mL}}{25 \text{ min}}\right) = 8 \text{ mL/min}$