# Cosmo School

## Class-5

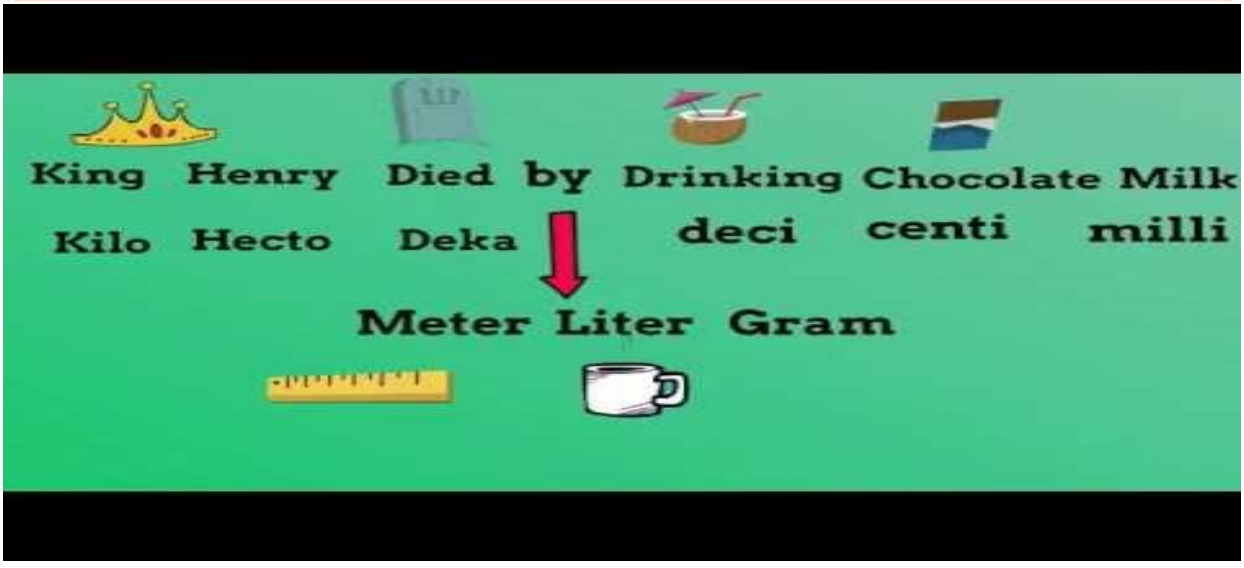
## Subject-Mathematics

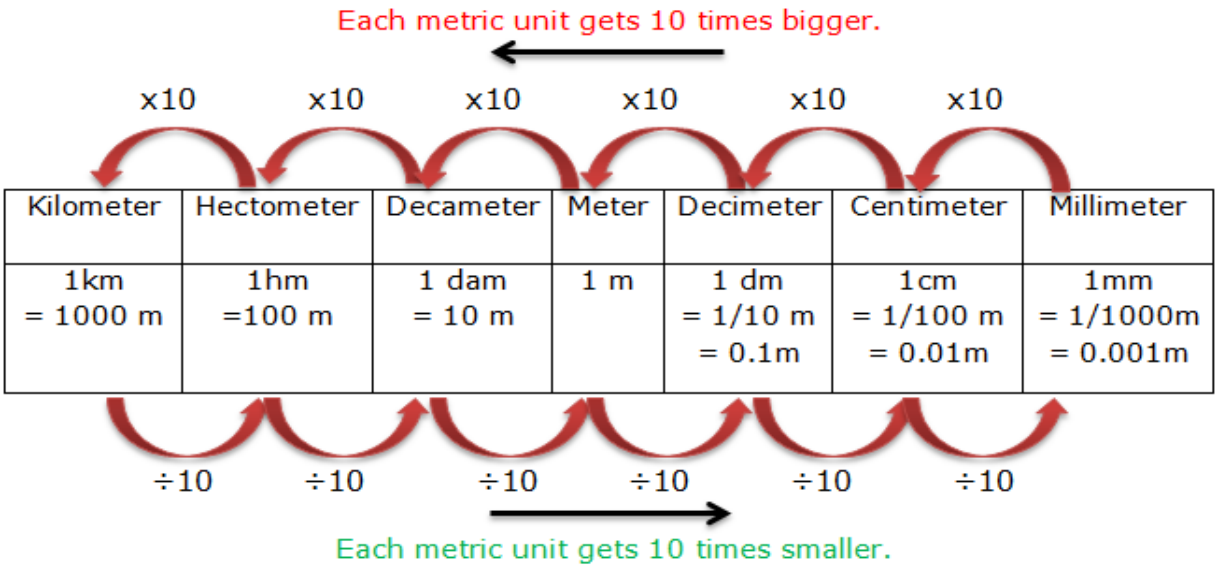
## Chapter-11

## Measurement

## Lecture-1

**Length:** **The length of something is the amount that it measures from one end to the other along.**




**Formula:**

**1)** 1 kilometre (km) = 1000 metre (m)

1 metre (m) = $\frac{1}{1000}$ = 0.001 kilometre (km)

**2)** 1 hectometre (hm) = 100 metre (m)

1 metre (m) = $\frac{1}{100}$ = 0.01 hectometre (hm)

**3)** 1 decametre (dam) = 10 metre (m)

1 metre (m) = $\frac{1}{10}$ = 0.1 decametre (dam)

**4)** 1 metre (m) = 10 decimetre (dm)

1 decimetre (dm) = $\frac{1}{10}$ =0.1 metre (m)

**5)** 1 metre (m) = 100 cemtimetre (cm)

1 centimetre (cm) = $\frac{1}{100}$ = 0.01 metre (m)

**6)** 1 metre (m) = 1000 millimetre (mm)

1 millimetre (mm) = $\frac{1}{1000}$ = 0.001 = metre (m)

**Fill in the blanks:**

**1.** 1234 m = ☐ km ☐ m = ☐ km ☐ hm ☐ dam ☐ m

**Solution:**

1234 m = (1234 ÷ 1000) km [∵ 1 m = $\frac{1}{1000}$ km ]

= 1 km + 234 m

= 1 km 234 m

∴ 1234 m = [1] km [234] m

**Rough**

$$1000\overline{)1234}\ (1$$

1000

234

Quotient 1 will be km

Remainder 234 will be m

**Again,**

1234 m = 1 km + 234 m

= 1 km + (234 ÷ 10) dam [∵ 1 m = $\frac{1}{10}$ dam]

= 1 km + 23 dam + 4 m

= 1 km + (23 ÷ 10) hm + 4 m

[∵ 1 dam = $\frac{1}{10}$ hm]

**Rough**

$$10\overline{)234}\ (23$$

20

34

30

4

$$10 \overline{)\,23}\quad 2,\ 20,\ 3$$

= 1 km + 2 hm + 3 dam + 4 m

= 1 km 2 hm 3 dam 4 m

1234 m = [1] km [2] hm [3] dam [4] m

**2.** 3050 m = ☐ km ☐ m = ☐ km ☐ dam

$$1000 \overline{)\,3050}\quad 3,\ 3000,\ 50$$

**Solution:**

3050 m = (3050 ÷ 1000) km [∵1 m = $\frac{1}{1000}$ km]

= 3 km + 50 m

= 3 km 50 m

3050 m = [3] km [50] m

**Again,**

3050 m = 3 km + 50 m

= 3 km + (50 ÷ 10) dam [∵ 1 m = $\frac{1}{10}$ dam]

= 3 km + 5 dam

= 3 km 5 dam

3050 m = [3] km [5] dam

****Calculate the following addition and subtraction, and express the answer using the units in the bracket:**

**1.** 12km 510m + 25km 720m (km, dam)

**2.** 5km 320m – 3280m (km, dam)

**Solution:**

**1.** 12km 510m + 25km 720m

= (12 + 25)km + (510 + 720)m

= 37km + 1230m

= 37km + (1230 ÷ 1000)km [∵ 1 m = $\frac{1}{1000}$ km]

= 37km + 1km + 230m

= (37 + 1)km + 230m

= 38km + (230 ÷ 10)dam [∵ 1 m = $\frac{1}{10}$ dam]

= 38km + 23dam

= 38km 23dam

Ans: 38km 23dam.

**Rough**

$$1000 \overline{)\,1230\,(\,1}$$
$$1000$$
$$230$$

**2.** 5km 320m – 3280m

= { (5 × 1000)m + 320 m } – 3280m

= (5000 + 320)m – 3280m

= 5320m – 3280m

= 2040m

= (2040 ÷ 1000)km [∵1 m = $\frac{1}{1000}$ km]

= 2km + 40m

= 2km + (40 ÷ 10)dam [∵ 1 m = $\frac{1}{10}$ dam]

= 2km + 4dam

= 2km 4dam

Ans: 2km 4dam.

**1. Exercise (Do yourself)**

**Calculate the following addition and subtraction, and express the answer using the units in the bracket:**

**a.** 3042m + 2078m (km, hm, dam)

**b.** 8520m – 3490m (km, hm, dam)