higher education & training
Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

Tshwane South TVET College
"achieve the future"

SUBJECT: FOUNDATIONAL ENGLISH
MODULE NAME: 3
UNIT NUMBUER : 1
UNIT NAME : LINEAR MEASUREMENT

TOPIC

After completing this topic, you will be able to:

1. **Convert:**

a. Centimetres to millimetres and vice versa

b. Metres to centimetres and millimetres and vice versa

c. Kilometres to metres, centimetres and millimetres and vice versa

2. Solve word problems that involve the conversion of the above

Conversion between km, m, cm and mm

What is distance?

Distance measures length. In the metric system of measurement, the units of distance we use the most are millimetres, centimetres, metres, and kilometres.

How big are metric units of distance?

A paper clip is about 1 $\boldsymbol{millimetre}$ thick.

A fingernail is about 1 $\boldsymbol{centimetre}$ wide.

The length of a guitar is about 1 $\boldsymbol{metre}$.

A **kilometre** is equal to 1000 $metres$. It is just little more than twice around a soccer field.

Converting larger units to smaller units.

You must MEMORISE how to convert.

$1\ centimetre = 10\ millimetres$

$1\ metre = 100\ centimetres$

$1\ metre = 1000\ millimetres$

$1\ kilometre = 1000\ metres$

Linear Measurement

Example: Converting metres to centimetres:

$1\ metre = 100\ centimetres$ (This you must KNOW, because you must memorise it)

$11\ metres = 11 \times 100 = 1100\ centimetres$

We can also convert smaller units to larger units:

Examples: $1\ m = 1/1000 = 0{,}001\ kilometres$

$7\ m = 7/1000 = 0{,}007\ kilometres$

Practise questions

1. 37 cm = mm
2. 598 km = cm
3. 20 m = mm
4. 914 m = km
5. 58 m = cm

ANSWERS : 370mm ; 59 800 000cm ; 20 000mm ; 0,914km; 5800cm

Solve Word Problems

1. John rode 2 $kilometres$ on his bike. His sister Sally rode 3000 $meters$ on her bike. Who rode the furthest (answer in km)?
2. Jessica is measuring two pieces of wood. The first piece of wood is 30 cm long. The second piece of wood is 500 mm long. How long are the two line segments together? (answer in cm)
3. Dumi grew 10 $centimetres$ in 1 year. He is now 1.6 m tall. How tall was he 1 year ago?
4. Jessica's shoebox is 20 $centimetres$ long and 10 $centimetres$ wide. How many more millimetres is the length of the shoebox than the width?

Solution

- Solve the following word problems.

1. Sally went $1km$ further
2. $30cm + 50cm = 80cm$
3. $1{,}5m$
4. $100mm$