Name: _____

Unit 2 - Measurement

2.1 – Introduction to the Metric System

- the system of measurement used extensively in most countries of the world is a version of the *Systeme Internationale* (SI), more commonly known as the **metric system**
- this system is based on the **meter**, which is defined as the distance light travels in 1/299 792 458 of a second
- smaller and larger lengths are based on multiples or divisions of the meter
- below is a list of prefixes used in the metric system and their meaning

Name	Symbol	Meaning	Numerical value
kilo	k	one thousand	1000
hecto	h	one hundred	100
deca	da	ten	10
deci	d	one-tenth	1/10 or 0.1
centi	c	one-hundredth	1/100 or 0.01
milli	m	one-thousandth	1/1000 or 0.001

- the symbols are derived from the ***first*** letter of the prefix
- Why is deca abbreviated **da** not just **d**?

_____

- the basic units of measurement are:

Quantity	Unit Name	Symbol
length	metre	m
mass	gram	g
volume	litre	ℓ

- we can indicate different sizes of the above quantities by using different ***prefixes***
- we can think of the prefixes as standing for different numbers
- the metric system uses a combination of prefixes and unit symbols

Example: Complete the table below.

Abbreviation	Name	Amount
dm		
hℓ		
cg		
km		
dag		
mℓ		

Assignment

1. Write the ***abbreviation*** for each of the following.

a) gram _____

b) litre _____

c) metre _____

d) kilometre _____

e) decalitre _____

f) centigram _____

g) hectometre _____

h) decilitre _____

i) milligram _____

j) kilolitre _____

k) centimetre _____

l) decagram _____

m) millimetre _____

n) hectolitre _____

o) centilitre _____

p) kilogram _____

q) decimetre _____

r) millilitre _____

s) hectogram _____

t) decametre _____

u) decigram _____

2. Write the correct ***symbol*** for each of the following.

a) 100 grams = 1 _____

b) 0.01 litres = 1 _____

c) 0.1 metres = 1 _____

d) 1000 litres = 1 _____

e) 10 grams = 1 _____

f) 0.001 metres = 1 _____

g) 0.01 grams = 1 _____

h) 10 litres = 1 _____

i) 0.1 grams = 1 _____

j) 0.01 metres = 1 _____

k) 1000 grams = 1 _____

l) 100 litres = 1 _____

m) 10 metres = 1 _____

n) 0.001 litres = 1 _____

o) 1000 metres = 1 _____

p) 0.1 litres = 1 _____

q) 0.001 grams = 1 _____

r) 100 metres = 1 _____

3. Write the ***meaning*** for the following symbols (***spelling counts!***).

a) dℓ _____

b) kg _____

c) cm _____

d) dg _____

e) hm _____

f) cℓ _____

g) dag _____

h) kℓ _____

i) mm _____

j) daℓ _____

k) hg _____

l) dm _____

m) cg _____

n) mℓ _____

o) km _____

p) hℓ _____

q) dam _____

r) mg _____

4. Complete the following table.

Quantity	Name	Abbreviation
0.001 m		
	1 kilometre	
		hm
	1 centimetre	
10 m		
		dm
	1 hectometre	
1000 m		
0.01 m		
	1 decimetre	
		mm
		dam
100 m		
	1 millimetre	
0.1 m		
		km
		cm
	1 decametre	