

Year 12 Bridging the gap - Biology

Units, measurements and standard form quiz

1 Rewrite the following using prefixes:

12000 g	12kg	2
0.005m	5mm	2
0.000087V	87 μ V	2

2 What do the following units represent?

gcm^{-3}	grams per centimetre cubed	2
Jkg^{-1}	joules per kilogram	2
mm^3s^{-1}	millimetres cubed per second	2
$\text{kgm}^{-2}\text{y}^{-1}$	kilograms per metre squared per year	2

3 Rewrite the following in standard form:

1942kg	$1.942 \times 10^3 \text{kg}$	2
0.007m	$7 \times 10^{-3} \text{m}$	2
0.000002A	$2 \times 10^{-6} \text{A}$	2
0.034s	$3.4 \times 10^{-2} \text{s}$	2
14.5MJ	$1.45 \times 10^4 \text{MJ}$	2
178846km	$1.78846 \times 10^8 \text{m}$	2
440mm	$4.40 \times 10^{-1} \text{m}$	2

4 Find values for:

Wavelength of red light	630-740nm	2
Diameter of a nucleus	6-10 μ m	2
Mass of the earth	$5.9742 \times 10^{24} \text{ kg}$	2