

Section 4.3 Mass and Volume

BEFORE YOU READ:

- 1) What measurement unit is used for a box of juice? _____
- 2) What measurement unit is used for a bag of chips? _____
- 3) List any other METRIC measurement units you know: _____

WHILE YOU READ: (pages 100-103)

- 4) Anything that has a MASS and OCCUPIES SPACE is called _____.

MASS

- 5) The mass of an object is a measure of the amount of _____ in the object.
- 6) Large masses are measured in _____, small masses are measured in _____ and very small masses are measured in _____.
- 7) How many milligrams are in one gram? _____ How many grams are in one kilogram? _____
- 8) Convert each mass to the unit indicated in brackets.
 - a) 4000 g (to kg) _____
 - b) 750 g (to kg) _____
 - c) 5.3 kg (to g) _____
 - d) 5,000,000 g (to kg) _____
- 9) The mass of an object can be measured in two ways:
 - a) DIRECTLY by using a _____
 - b) INDIRECTLY by using a _____ and _____.
- 10) Describe the process of measuring mass indirectly: _____

VOLUME

11) Volume is a measure of the amount of _____ that is occupied by matter.

12) What is the name of device you use to measure small volumes of liquid directly?

13) Large volumes are measured in _____. Small volumes are measured in _____.

14) How many millilitres are in one litre? _____.

15) Convert each volume to the unit indicated in brackets.

a) 6 L (to mL) _____

b) 470 mL (to L) _____

16) The volume of a rectangular solid can be measured using the following formula:

17) The volume of a solid is usually given in _____ (cm^3).

1 cm^3 is the same as _____ mL; and 1 L is the same as _____ cm^3 .

18) The volume of an irregular solid can be measured using the indirect method. Describe the process of measuring volume indirectly: _____

19) Approximately, what is the volume of the rock shown in Figure 5? _____