

Density

We can compare the weights of things made of different materials.

For a fair test, we weigh objects made of different materials which have the _____.

1 cm³ of iron is heavier than 1 cm³ of plastic.

This is because the _____ has more _____ even though the _____ is the same.

Iron is more _____ than plastic.

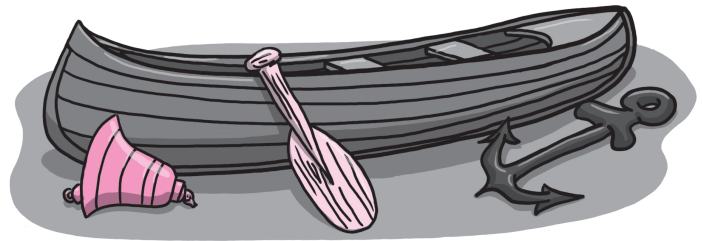
Glass marbles _____ in water. This means that glass is _____ dense than water.

A cork _____ in water. This means that cork is _____ than water.

- 1 "Iron is heavier than wood." This is not true. Give an example of something made of wood, and something made of iron where the wooden object is heavier.

(a) Object made of wood:

(b) Object made of iron:



- 2 Rewrite "Iron is heavier than wood" to make it scientifically correct.

(a) Rewrite it using the word **dense**.

(b) Rewrite it without using the words **dense** or **density**. Explain what you meant in (a).

- 3 Here is a list of materials. Number them in order of density. Put 1 against the least dense material, and 5 against the most dense.

(a) air (b) wood (c) water (d) helium (e) steel

Density tells us the mass of _____ of material. It enables materials to be compared.

A 100 cm³ block of iron has a mass of 790 g. So 1 cm³ of iron has a mass of _____.

The _____ of iron is _____.

- 4 Calculate the density of these materials in g/cm³.

(a) Uranium: 20 cm³ has a mass of 380 g.

(b) Lead: 60 cm³ has a mass of 660 g.

