

Metals

About 90 of the pure substances, or chemical elements, are metals. They are used to make many familiar things around us, such as aluminium in fizzy-drinks cans, copper in electrical wires, iron in saucepans, nickel or lithium in rechargeable batteries, and solid gold in jewellery. Most metals are strong and tough. They are also good conductors, as they carry electricity and heat well.



COMMON METALS AND THEIR USES

About 30 of the 90 metals are known as transition metals. These form the central block of the periodic table. Transition metals are typically hard and shiny. They can be hammered and bent into shape, and have high melting points. They are the best conductors, and do not react easily with other substances. These features make them very useful.

ANSWER THESE QUESTIONS;

Can you bend a transition metal?

YES

NO

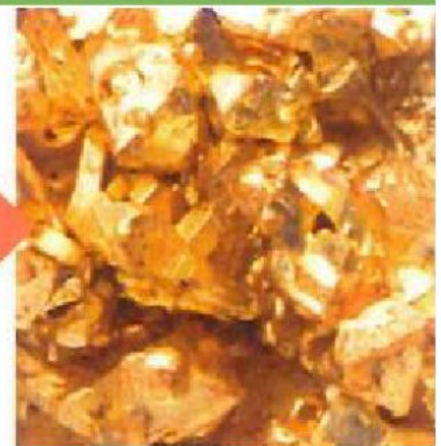
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▲ 1. ORE *Sometimes small pieces of metal can be seen in the ore, such as these flecks of gold.*



▲ 2. MELTING *The heat is carefully controlled to make the ore melt but not turn to vapour.*



▲ 3. COOLING *The molten liquid gold collects and can be poured or skimmed off to solidify.*

How many steps are there to making metals?

8

3

Strange metals

The metals we see every day, such as iron, silver, and copper, come from a group called transition metals. They are hard, shiny, and only melt at high temperatures. There are other kinds of metals that behave very differently. They are divided into groups such as alkali metals, alkaline earth metals, and poor metals. Some are common in daily life while others are rare, with specialized uses, and a few are very dangerous.

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How do transition metals bend?

MELT

FREEZE

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