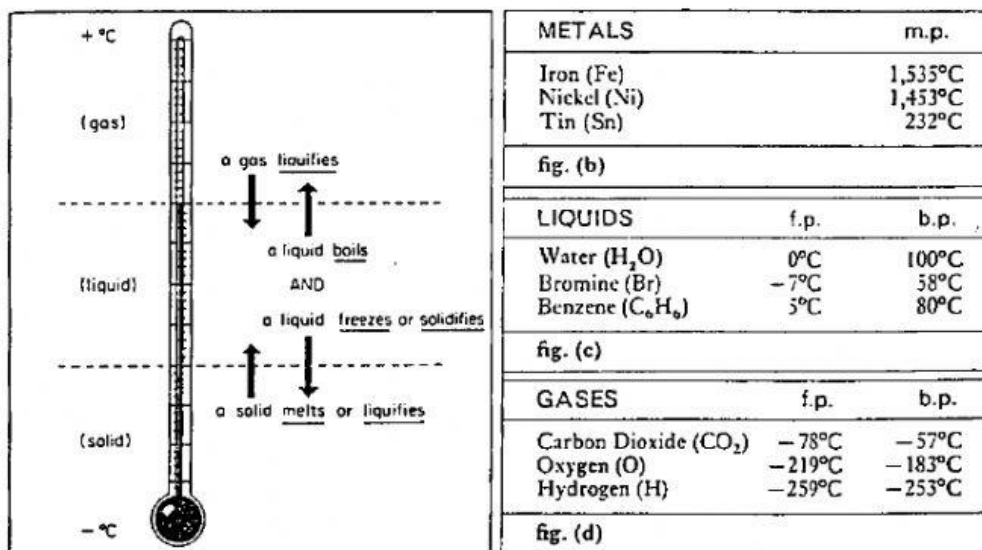


FACTS ABOUT MATTER**THREE STATES OF MATTER**

Under normal conditions, there are three states of matter: the solid state, the liquid state and the gas state. Iron, nickel and other metals are normally solids. Water is normally a liquid and carbon dioxide is normally a gas.



(m.p.) melting points: *punto de fusion* - (b.p.) boiling point: *punto de ebullición* - (f.p.) freezing point: *punto de solidificación*

Fig. (b) gives the melting points (m.p.) of some metals. Iron has a high melting point. It melts at 1,535°C. Nickel has a high m.p. Tin has a low m.p. It melts at 232°C. Fig. (c) gives the freezing points (f.p.) and the boiling points (b.p.) of liquids. Water is normally a liquid. It boils at 100°C, i.e. it becomes a gas above this temperature. It freezes at 0°C, i.e. it becomes a solid below this temperature. Bromine is normally a liquid but it has a low b.p. It boils at 58°C and it freezes at -7°C. Fig. (d) gives the f.p. and the b.p. of gases. At low temperatures, a gas becomes a liquid. Oxygen liquifies at -183°C. Carbon dioxide is normally a gas but it is often used in the liquid or the solid state. CO₂ liquifies at -57°C. It solidifies at -78°C.

READING COMPREHENSION

Exercise 1: Are these statements true (T) or false (F) ?

1. The solid state, the liquid state and the gas state are the three normal states of matter.
2. Metals are normally liquids.
3. Iron liquifies at 1,535 C.
4. Tin has a high m.p.
5. Water boils at 0°C and it freezes at 100°C.
6. Bromine becomes a gas above -7°C.
7. Benzene becomes a gas above 80°C.
8. CO₂ normally solidifies below -78°C.
9. Oxygen normally becomes a liquid above -183°C.
10. Hydrogen is in the liquid state between -253°C and -259°C.

Exercise 2 Complete these sentences.

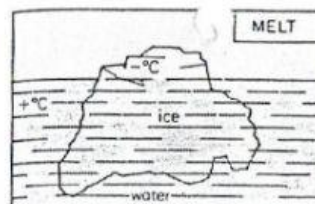
80°C – HYDROGEN – 100°C – LOW – BOILS

MELTS – CARBON DIOXIDE – LIQUIFIES – IRON – HIGH

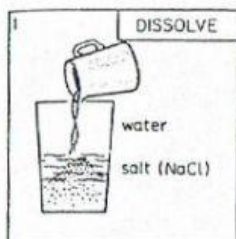
1. Water boils at
2. Nickel at 1453°C.
3. melts at 1535°C.
4. Tin has a melting point.
5. Iron and Nickel have a melting point.
6. Benzene boils at
7. Bromine at 58°C
8.freezes at -78°C
9. Oxygen at -183°C
10. freezes at -259°C

Exercise 3 Look at this example.

MELT / ICE Water **melts** ice.

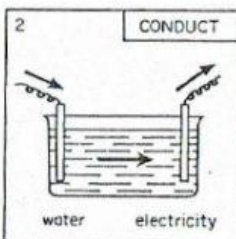


Now make sentences in the same way from these pictures.



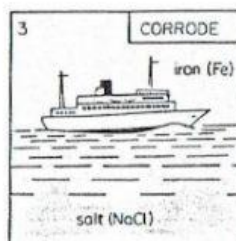
1)

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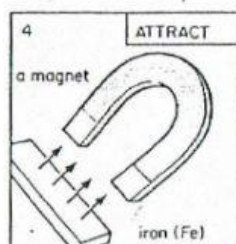
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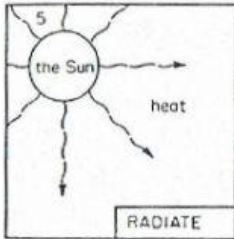
3)

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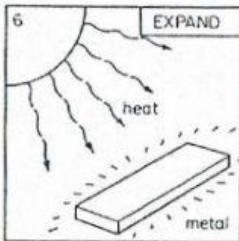
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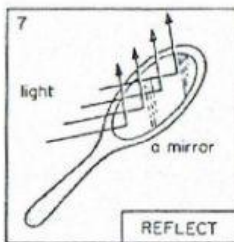
5)

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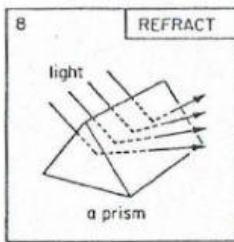
6)

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7)

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8)

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