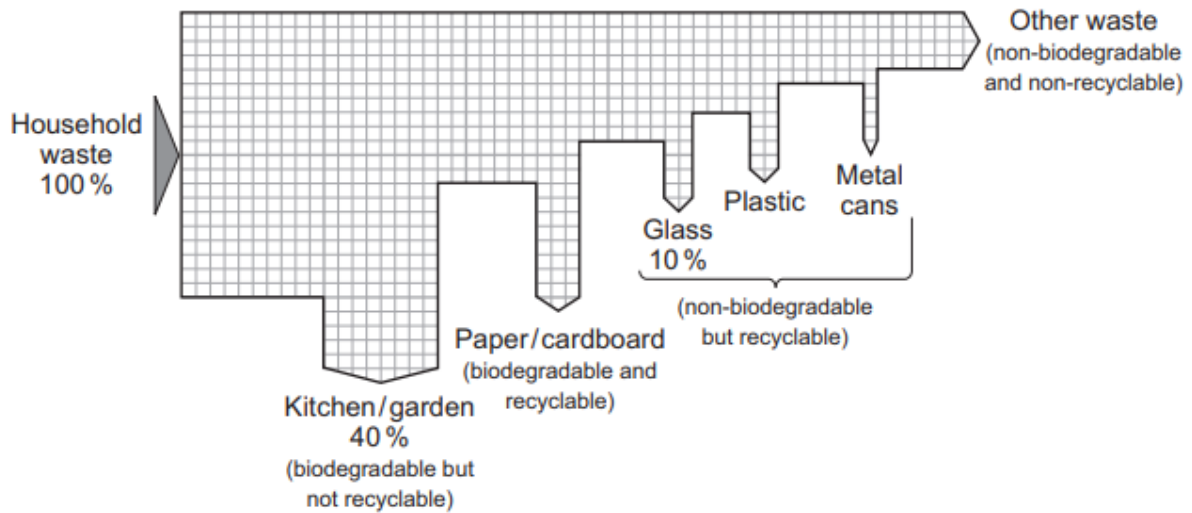


# REUSE & RECYCLING 2

Q1. The diagram shows the composition of typical household waste.



Match percentages (%), A, B, C and D, with the numbers 1– 4 in the table.

- A 5 %
- B 10 %
- C 40 %
- D 55 %

Percentage (%)	
1	the percentage of waste that is plastic
2	the percentage of waste that is metal
3	the percentage of waste that is recyclable
4	the percentage of waste that is biodegradable

(4 marks)

**Q2.** Recycling aluminium cans uses less fossil fuels than producing aluminium from its ore. Tick (✓) one advantage and tick (✓) one disadvantage of recycling aluminium to make aluminium cans.

Statement	Advantage Tick (✓)	Disadvantage Tick (✓)
aluminium is the most common metal in the Earth's crust		
less carbon dioxide is produced		
more aluminium ore needs to be mined		
used aluminium cans have to be collected and transported		

(2 marks)

**Q3.** In the UK, we use about 1.8 billion steel cans every year but only 25% are recycled. Used steel cans are worth about £100 per tonne. Recycling saves raw materials and reduces waste that would end up in landfill. Producing steel by recycling used cans saves 75% of the energy that would be needed to produce steel from iron ore. This also reduces carbon dioxide emissions.

**(i)** Give two reasons, from the information above, to explain why recycling used steel cans is a good idea.

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(2 marks)

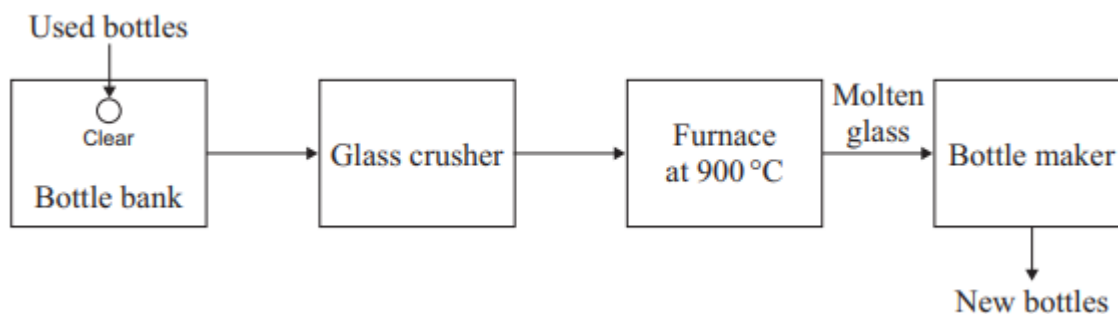
**(ii)** Suggest how the local council could increase the percentage of used steel cans that are recycled.

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(1 mark)

**Q4.** In recent years we have become more aware of the need to recycle glass.

**(a)** Used glass bottles can be recycled if they are put into bottle banks.



**(i)** Suggest one reason why light bulbs should not be put into bottle banks.

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(1 mark)

**(ii)** Very few glass bottles are reused (used more than once). Suggest one reason why.

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(1 mark)

**(iii)** New glass bottles can also be produced by heating, at 1700 °C, a mixture of the following raw materials:

- sand (silicon dioxide),  $\text{SiO}_2$
- soda ash (sodium carbonate),  $\text{Na}_2\text{CO}_3$
- limestone (calcium carbonate),  $\text{CaCO}_3$

Explain why the use of recycled glass to make glass bottles produces less carbon dioxide than making glass bottles from these raw materials.

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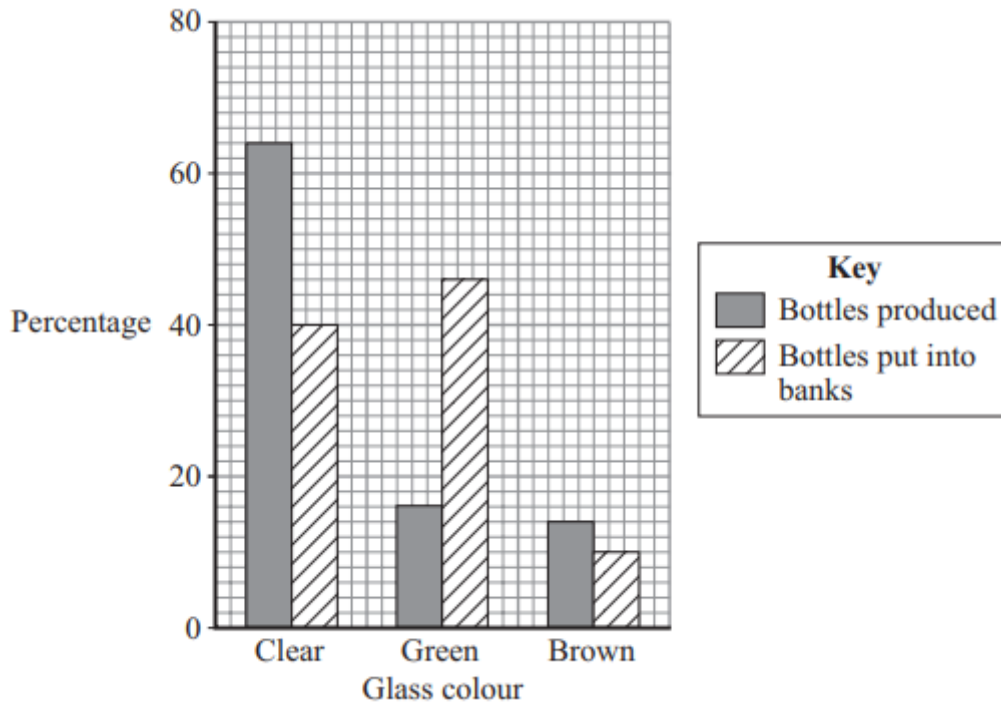
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(2 marks)

- (b) The bar chart shows the percentages of glass bottles produced and the percentages of glass bottles put into bottle banks in the UK.



- (i) The percentage of green glass bottles produced is 16%. What is the percentage of green glass bottles put into bottle banks?

Percentage = ..... %

(1 mark)

- (ii) More green glass bottles are put into bottle banks than are made in the UK.

Suggest one reason why.

(1 mark)

- (iii) Suggest and explain one problem resulting from the percentage of clear glass bottles produced in the UK.

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(2 marks)

**Q5.** Aluminium is the most abundant metal in the Earth's crust. Suggest two reasons why we should recycle aluminium drinks cans.

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(2 marks)

Total marks (19)