

AQA, OCR, Edexcel

GCSE Science

GCSE Chemistry

**Ceramics, Polymers and
Composites
Answers**

M M E

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Total Marks: /19

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Ceramics, polymers and composites

Q1: Complete the following sentences using the words in the boxes.

Most of the glass we use is **soda-lime glass (1 mark)** . It is made by **heating (1 mark)** a mixture of **sand (1 mark)**, **sodium carbonate (1 mark)** and **limestone (1 mark)**.

Borosilicate Glass made from **sand (1 mark)** and **boron trioxide (1 mark)**, melts at **higher (1 mark)** temperatures than **soda lime (1 mark)** glass.

(10 marks)

Soda lime glass	Heating	Cooling	Sand	Limestone	Sodium carbonate
Borosilicate glass	Boron trioxide	Higher	Lower		

Q2:

How are clay ceramics, like the ones pictured below made?



A= shaping wet clay (1 mark) and then heating in a furnace (1 mark).

(2 marks)

Q3: What are the properties of polymers dependent upon?

A= Depends on what monomers they are made from (1 mark) and the conditions under which they are made/ the amount of heat applied (1 mark)

(2 marks)

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Q4: Fill in the boxes then match up the boxes for the types of polymers.

Thermo **softening** (1 mark) polymers

Melt when they are heated

Thermo **setting** (1 mark) polymers

Do not melt when they are heated

(2 marks)

Q5: Most composites are made of two materials, what are they and how do they work together?

A= A matrix or binder (1 mark) surrounding and binding together fibres or fragments (1 mark), this is called the reinforcement (1 mark)

(3 marks)