

**AQA, OCR, Edexcel**

**GCSE Science**

# **GCSE Chemistry**

## **Compounds and Mixtures Questions**

Includes:

Atoms, elements and compounds

Mixtures

**M M E**

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**Total Marks:     /29**

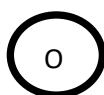
**Atoms, elements and compounds**

Q1: What is an element?

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(1 mark)

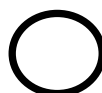
Q2: Atoms in elements are represented by a chemical symbol. For example, O represents an atom of oxygen. Fill in the atoms with a chemical symbol.



Oxygen = O



Hydrogen =     



Calcium =     

(2 marks)

Q3: Some elements, for example hydrogen, exist as two atoms together. What are these called?

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(1 mark)

Q4: How are compounds formed?

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(1 mark)

Q5: How can it be determined if a chemical reaction has occurred?

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(2 marks)

Q6: Give the chemical equation for the following compounds.

Water =                                     

Carbon Dioxide =                                     

Sodium Chloride =                                     

(3 marks)

Q7: How are compounds separated into elements?

\_\_\_\_\_

(1 mark)

**Mixtures**

Q8: Circle the definition of a mixture.

2 or more elements  
or compounds not  
chemically bonded  
together

Combination of 2  
elements by chemical  
reaction

(1 mark)

Q9: Give 3 ways of physically separating a mixture.

1: \_\_\_\_\_

2: \_\_\_\_\_

3: \_\_\_\_\_

(3 marks)

Q10: Give 2 differences between a compound and a mixture.

1: \_\_\_\_\_

2: \_\_\_\_\_

(2 marks)

Q11: i) Students want to separate a mixture of sand, salt and water. Draw and label a simple apparatus set up to filter the sand from the mixture.

(4 marks)

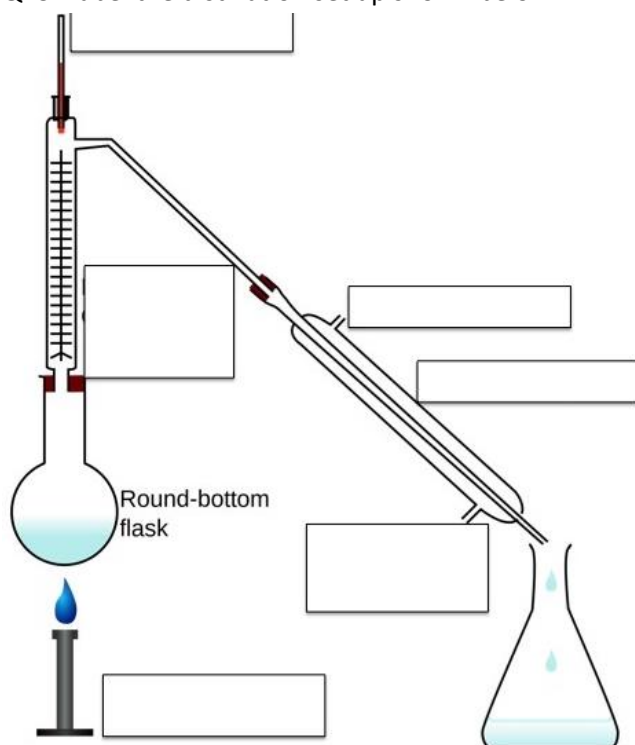
ii) How could the students separate the remaining salt from the water?

\_\_\_\_\_ (1 mark)

Q12: How can scientists collect a solvent when separating it from the solid?

\_\_\_\_\_ (1 mark)

Q13: Label the distillation set up shown below.



(6 marks)