AQA, OCR, Edexcel

GCSE Science

GCSE Chemistry

Chemical Measurements and Relative Formula Mass Questions

Total Marks: /24

Conservation of mass and balanced chemical equations

Q1: State **the law of conservation of mass.**

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_____

(2 marks)

Q2: How is the law of conservation of mass applied in chemical reaction formulas involving symbols?

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_____

(1 marks)

Relative formula mass

Q3: Define what is meant by the relative formula mass of a compound.

_____

_____

(2 marks)

Q4: Using the periodic table, state the relative formula mass of the following compounds.

    a) MgO

(2 marks)

    b) NH_3

(2 marks)

Q5: Balance the equation then fill in the relative formula mass in the boxes.

$\square$ H_2 + $\square$ N_2 $\longrightarrow$ $\square$ NH_3

Relative atomic mass of H: Number of atoms: Relative formula mass H_2:	Relative atomic mass N: Number of atoms: Relative formula mass N_2:	Relative formula mass of NH_3:

(7 marks)

Q6: Complete the following table for this equation.
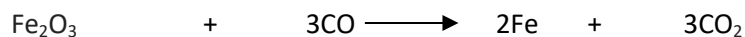
$$Fe_2O_3 \quad + \quad 3CO \longrightarrow 2Fe \quad + \quad 3CO_2$$

Compound or Element	Relative Formula Mass
Fe_2O_3	
$3CO$	
$2Fe$	
$3CO_2$	

(4 marks)

Mass changes

Q7: From reading the equation below and looking at the state symbols, why may the measured mass of the products in this reaction be different to the mass of the reactants?

$$S(s) + O_2 \ (l) \longrightarrow SO_2 \ (g)$$

_____

_____

(2 marks)

Chemical measurements

Q8: Whenever a measurement in chemistry is made, there is a degree of uncertainty in the result. How can we measure uncertainty?

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(2 marks)