AQA, OCR, Edexcel

GCSE Science

GCSE Chemistry

Rate of Reaction
Questions

MME
Mathsmadeeasy.co.uk

Total Marks: /22

Calculating rates of reactions

Q1: Complete the equations to show how the rate of a chemical reaction can be found.

a)

$$Mean\ rate\ of\ reaction = \frac{}{time\ taken}$$

(1 mark)

b)

$$Mean\ rate\ of\ reaction = \frac{}{time\ taken}$$

(1 mark)

Q2: Give two ways, whereby the quantity of reactant or product can be measured.

_____

_____

_____
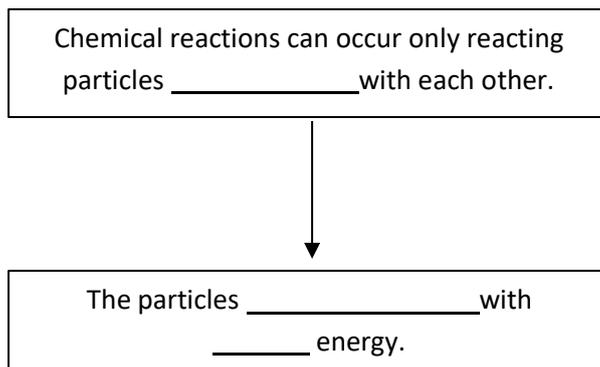
(2 marks)

Factors which affect the rates of chemical reactions

Q3: Name five factors which affect the rates of chemical reactions:

_____

_____

_____

_____

_____

(5 marks)

Collision theory and activation energy

Q4: Complete the flow diagram to show how collision theory works.

> Chemical reactions can occur only reacting particles _____ with each other.

> The particles _____ with _____ energy.

(2 marks)

Q5: Explain how increasing the concentration of reactants and increasing the temperature increases the rate of reaction.

_____

_____

_____

_____

_____

(4 marks)

Catalysts

Q6: Describe what a catalyst is and why it is used.

_____

_____

_____

(2 marks)

Q7: Give an example of a biological catalyst.

_____

_____

(1 mark)

Q8: Below is a reaction profile. Draw on the same diagram, of a catalysed reaction.

Energy

Reactants

Activation
Energy

Products

Progress of reaction
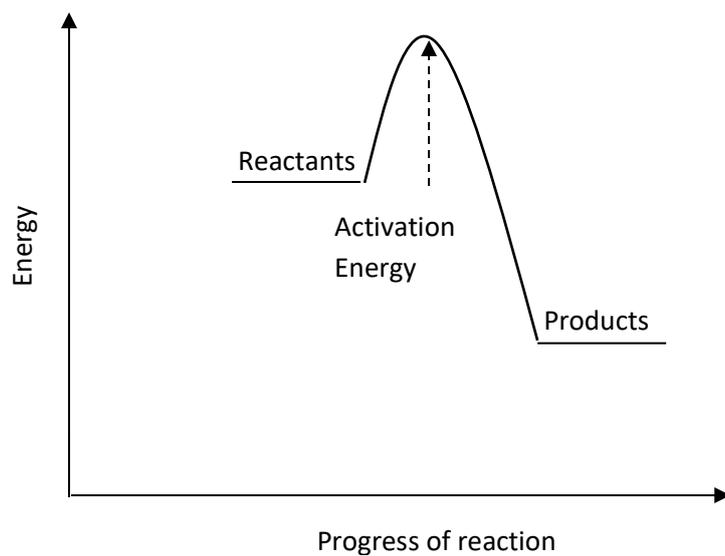
(2 marks)

Q9: How do catalysts change reactions in this way?

_____

_____

_____

(2 marks)