

**AQA, OCR, Edexcel**

**GCSE Science**

# **GCSE Chemistry**

Reactivity of Metals

Answers



**Total Marks: /24**

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Q1: Complete the sentences by filling in the gaps using some of the words in the boxes.

Metals react with **oxygen (1 mark)** to produce **metal oxides (1 mark)**. The reactions are **oxidation (1 mark)** reactions because the metals **gain (1 mark)** oxygen.

(4 marks)

Q2: In terms of loss or gain of oxygen, what is oxidation and reduction?

Oxidation – gain of oxygen (1 mark)

Reduction – loss of oxygen (1 mark)

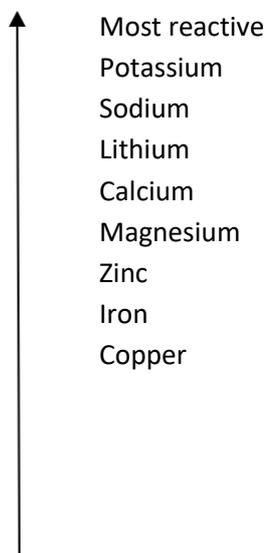
(2 marks)

Q3: When metals react with other substances what type of ions do they form?

A= positive ions (1 mark)

(1 mark)

Q4: Metals and the non-metals can be arranged in the order of their reactivity in a reactivity series. Place them in the order of their reactivity.



(8 marks)

Q5: Give an example of an unreactive metal and how it is often found in the Earth.

A= Gold (1 mark) found as the metal itself (1 mark) or another acceptable answer from outside of the spec.

(2 marks)

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Q6: How can metals less reactive than carbon be extracted?

A= Extracted from the oxides (1 mark) by reduction with carbon. (1 mark)

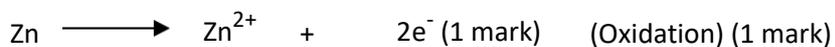
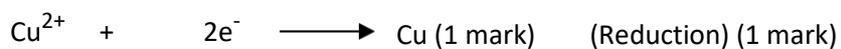
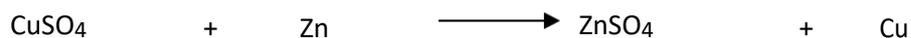
(2 marks)

Q7: In terms of electrons, describe oxidation and reduction.

A= Oxidation, loss of electrons. (1 mark) Reduction, gain of electrons. (1 mark)

(2 marks)

Q8: For the following reaction. Write two ionic equations and label which one is reduction and which one is oxidation.



(4 marks)

(3 marks)