Atomic structure and the periodic table

Chemistry Paper 1 | 30 quick questions

GCSE science knowledge recall

Answer online, marked instantly

Name: _____ **Date:** _____ **Score:** _____ **/ 30**

1 What is the name for a substance made of only one type of atom?

2 What is the name for a substance made of two or more elements chemically combined in fixed proportions?

3 Which method separates an insoluble solid from a liquid?

4 Which method gets pure water from salty water by boiling it and condensing the steam?

5 Which method separates a mixture of liquids with different boiling points, such as ethanol and water?

6 Which method separates the different dyes in an ink?

7 Which model pictured the atom as a ball of positive charge with negative electrons scattered through it?

8 Which particles were fired at thin gold foil in the scattering experiment that led to the nuclear model?

9 Which scientist showed that neutrons exist, about 20 years after the nucleus was discovered?

10 What is the relative charge of a proton?

11 Which subatomic particle has a relative mass that is very small, compared with 1 for the other two?

12 Roughly what is the radius of an atom, in nanometres?

13 What is the name for the total number of protons and neutrons in an atom?

14 What name is given to atoms of the same element with different numbers of neutrons?

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15 A sodium atom has atomic number 11 and mass number 23. How many neutrons does it have?

16 Sodium has 11 electrons. Write its electronic structure, using commas.

17 Which scientist arranged the elements in order and left gaps for elements not yet discovered?

18 When metals react, do they form positive or negative ions?

19 What name is given to the elements in Group 0?

20 Explain why the elements in Group 0 are unreactive.

21 What name is given to the elements in Group 1?

22 Which gas is given off when lithium reacts with water?

23 Going down Group 1, does reactivity increase or decrease?

24 What name is given to the elements in Group 7?

25 What colour is chlorine gas?

26 Which halogen, chlorine or iodine, will displace bromine from potassium bromide solution?

27 Group 1 compounds are usually white. What are transition metal compounds often, instead? Answer in one word.

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28 Do transition metals have higher or lower melting points than Group 1 metals?

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29 Iron forms ions with which two charges?

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30 Which transition metal is the catalyst in the Haber process for making ammonia? Give the name.

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