

## Quiz questions – Reactivity

- Which of the following is a metal?
  - Zinc
  - Carbon
  - Silicon
  - Sulfur

A. Zinc
- Magnesium reacts with dilute hydrochloric acid to make hydrogen and a metal salt. The metal zinc is not far below magnesium in the reactivity series. How would you expect zinc to react with hydrochloric acid?
  - The same as magnesium
  - No reaction
  - Less than magnesium
  - More than magnesium

C. Less than magnesium
- Why doesn't gold tarnish in air?
  - It doesn't like air
  - It is unreactive
  - It is a metal
  - It is shiny

B. It is unreactive
- Which of the following is the correct order of decreasing reactivity?
  - Iron, potassium, magnesium, gold, copper
  - Magnesium, copper, iron, gold, potassium
  - Gold, potassium, iron, copper, magnesium
  - Potassium, magnesium, iron, copper, gold

D. Potassium, magnesium, iron, copper, gold
- Metals can be placed in order of reactivity. What is this order called?
  - The periodic table
  - The reactivity table
  - The displacement series
  - The reactivity series

D. The reactivity series

6. Which gas is produced when metals react with acid?
- A. Chlorine
  - B. Hydrogen
  - C. Oxygen
  - D. Carbon dioxide
- B. Hydrogen
7. The alkali metals lithium, potassium and sodium all react with cold water to produce a gas and an alkaline solution. What is their order of increasing reactivity?
- A. Lithium, sodium, potassium
  - B. Sodium, lithium, potassium
  - C. Lithium, potassium, sodium
  - D. Potassium, sodium, lithium
- A. Lithium, sodium, potassium
8. Tungsten metal has all of the following properties, but which one is an important reason for its use in lightbulbs?
- A. It is shiny
  - B. It forms compounds
  - C. It has a high melting point
  - D. It is malleable
- C. It has a high melting point
9. Which compound is formed when magnesium reacts with oxygen?
- A. Water
  - B. Magnesium oxide
  - C. Magnesium sulphate
  - D. Magnesium chloride
- B. Magnesium oxide
10. A displacement reaction can be described as:
- A. Metal reacting with oxygen
  - B. Acid neutralising alkali
  - C. A more reactive metal replacing a less reactive metal in its compound
  - D. A less reactive metal replacing a more reactive metal in its compound
- C. A more reactive metal replacing a less reactive metal in its compound

11. Which one of the following metals would not be useful in making jewellery?
- A. Gold
  - B. Silver
  - C. Copper
  - D. Sodium
- D. Sodium
12. Gold is said to be found 'native'. What does this mean?
- A. It is unreactive so it is found pure in the Earth's crust
  - B. It is found everywhere in the earth crust
  - C. It is reactive so it is only found as part of compounds
  - D. It is a shiny metal
- A. It is unreactive so it is found pure in the Earth's crust
13. Metal X displaces metal Y. Metal Z does not react with X or Y. Which order of decreasing reactivity is correct?
- A. X, Y, Z
  - B. Y, Z, X
  - C. X, Z, Y
  - D. Z, Y, X
- A. X, Y, Z
14. Most metals react with a gas in the air. What is this gas called?
- A. Carbon dioxide
  - B. Oxygen
  - C. Nitrogen
  - D. Hydrogen
- B. Oxygen
15. Sodium reacts in water to produce:
- A. Sodium oxide
  - B. Sodium hydroxide + oxygen
  - C. Sodium oxide + hydrogen
  - D. Sodium hydroxide + hydrogen
- D. Sodium hydroxide + hydrogen

16. Which metal produces a flame when placed in water?
- A. Potassium
  - B. Gold
  - C. Zinc
  - D. Lithium
- A. Potassium
17. Alkali metals are stored under:
- A. Sand
  - B. Oil
  - C. Powder
  - D. Water
- B. Oil
18. What is most likely to be the pH of the solution made when potassium reacts with water?
- A. pH 4
  - B. pH 7
  - C. pH 9
  - D. pH 12
- D. pH 12
19. What happens to iron when it is exposed to air and water?
- A. It melts
  - B. It dissolves
  - C. It rusts
  - D. It does not change
- C. It rusts
20. A physical property of the alkali metals which is different to all other metals is:
- A. They are uncreative in air
  - B. They are dull when cut
  - C. They are acidic in water
  - D. They are not hard
- D. They are not hard