ENGLAND GCSE COMBINED SCIENCE OCR GATEWAY HIGHER · UNIT 10 · 25 QUESTIONS

Predicting and Identifying Reactions and Products — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button so it can be fixed.

1 **Silver coins are made of a metal. Which property do metals have?**

- **A** they dissolve in water
- **B** they do not conduct electricity at all
- **C** they are brittle
- **D** they conduct electricity

Understand It with Pulse | Flag a mistake

2 **A cup of coffee is hot. How is energy transferred to the air?**

A by evaporation only, from the top

B by radiation only, from the surface

C by conduction and convection

D by condensation on the cold cup

Understand It with Pulse | Flag a mistake

3 **A chocolate cake rises in the oven. What makes it rise?**

A the sugar freezes

B the flour melts

C the egg evaporates

D a gas is made

Understand It with Pulse | Flag a mistake

4 **A castle wall is made of stone. What type of rock is limestone?**

- A igneous
- B metamorphic
- C sedimentary
- D volcanic

Understand It with Pulse | Flag a mistake

5 **An ice cream cone melts. What is the melting point of the ice cream?**

- A around 100 degrees Celsius
- B around 37 degrees Celsius
- C around 0 degrees Celsius
- D around minus 20 degrees Celsius

Understand It with Pulse | Flag a mistake

6 **Lemons contain citric acid. What do acids make with metals?**

A water only, nothing else

B a salt and hydrogen

C a salt and water, never hydrogen

D a salt and oxygen gas

Understand It with Pulse | Flag a mistake

7 **Which metal is least reactive?**

A magnesium

B gold

C zinc

D iron

Understand It with Pulse | Flag a mistake

8 **How do you test for carbon dioxide gas?**

A it turns litmus blue

B it relights a glowing splint

C it burns with a pop

D it turns limewater cloudy

Understand It with Pulse | Flag a mistake

9 **A sample containing calcium is put in a flame. What colour is the flame?**

A pale lilac

B crimson red

C orange-red

D bright yellow

Understand It with Pulse | Flag a mistake

10 **Why are instrumental methods used to test athletes?**

- A they are cheap to run anywhere in the world
- B they give results in seconds
- C they work without a sample
- D they can find tiny amounts of drugs

Understand It with Pulse | Flag a mistake

11 **How do you test for carbonate ions?**

- A acid gives off carbon dioxide
- B a squeaky pop
- C a lilac flame
- D silver nitrate gives a precipitate

Understand It with Pulse | Flag a mistake

12 **Why is gold found uncombined in the Earth?**

A it is very unreactive

B it dissolves in water

C it is very reactive

D it is made by volcanoes

Understand It with Pulse | Flag a mistake

13 **Zinc is more reactive than lead. What happens when zinc is added to lead nitrate solution?**

A the solution turns green

B nothing happens at all

C lead displaces zinc

D zinc displaces lead

Understand It with Pulse | Flag a mistake

14 **What are the products when an acid reacts with a metal carbonate?**

A a salt, water and hydrogen gas

B salt, water and carbon dioxide

C water and oxygen only

D a salt and oxygen only

Understand It with Pulse | Flag a mistake

15 **Why do unreactive metals like gold occur as the metal itself in the Earth?**

A they are gases

B they do not react

C they are very light

D they are very heavy

Understand It with Pulse | Flag a mistake

16 **What is the order of reactivity, most reactive first?**

A potassium, sodium, calcium, magnesium

B magnesium, calcium, sodium, potassium

C calcium, magnesium, potassium, sodium

D sodium, potassium, magnesium, calcium

Understand It with Pulse | Flag a mistake

17 **What colour flame does sodium give in a flame test?**

A green

B lilac

C brick red

D yellow

Understand It with Pulse | Flag a mistake

18 **A sample containing lithium is put in a flame. What colour is the flame?**

- A crimson
- B pale lilac
- C orange-red flame
- D bright yellow

Understand It with Pulse | Flag a mistake

19 **What does mass spectrometry measure?**

- A the volume of a gas
- B the masses of particles
- C the temperature of a sample
- D the colours of a flame

Understand It with Pulse | Flag a mistake

20 **Copper is less reactive than iron. What happens when copper is added to iron sulfate solution?**

- A iron displaces copper
- B the solution turns brown
- C nothing happens
- D copper displaces iron

Understand It with Pulse | Flag a mistake

21 **What are the products when a metal reacts with dilute hydrochloric acid?**

- A a salt and oxygen
- B an oxide and hydrogen
- C a salt and hydrogen
- D a salt and water

Understand It with Pulse | Flag a mistake

22 **Which metal reacts most vigorously with cold water?**

A magnesium

B zinc

C iron

D potassium

Understand It with Pulse | Flag a mistake

23 **What colour flame does potassium give in a flame test?**

A brick red

B yellow

C lilac

D green

Understand It with Pulse | Flag a mistake

24 **Which metal will displace copper from copper sulfate solution?**

- A gold
- B silver
- C iron
- D platinum

Understand It with Pulse | Flag a mistake

25 **How can you tell that carbon dioxide is made in a reaction?**

- A a glowing splint relights
- B limewater turns cloudy
- C a yellow flame is seen
- D a squeaky pop is heard

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	D	**10.**	D	**19.**	B
2.	C	**11.**	A	**20.**	C
3.	D	**12.**	A	**21.**	C
4.	C	**13.**	D	**22.**	D
5.	C	**14.**	B	**23.**	C
6.	B	**15.**	B	**24.**	C
7.	B	**16.**	A	**25.**	B
8.	D	**17.**	D		
9.	C	**18.**	A		

© 2026 Brett Robbins. All Rights Reserved.