ENGLAND GCSE CHEMISTRY OCR GATEWAY HIGHER · UNIT 4 · 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 **An ice cream cone melts in the Sun. What is happening to the particles in the ice cream?**

- A they get smaller
- B they stop moving
- C they gain energy and move more
- D they lose energy and slow down a lot

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

A by condensation on the cold cup

B by evaporation only, from the top

C by radiation only, from the surface

D by conduction and convection

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3 **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 conduct electricity

D they are brittle

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

A the egg evaporates

B a gas is made

C the flour melts

D the sugar freezes

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

A volcanic

B igneous

C metamorphic

D sedimentary

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6 **Lemons taste sour. What does sour taste show?**

- A a salt is present
- B a metal is present
- C an alkali is present
- D an acid is present

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7 **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

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8 **Why does zinc displace copper from copper sulfate?**

A zinc is a gas

B copper is a gas

C zinc is less reactive than copper

D zinc is more reactive than copper

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9 **What does mass spectrometry measure?**

A the volume of a gas

B the colours of a flame

C the masses of particles

D the temperature of a sample

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

- A green
- B lilac
- C yellow
- D brick red

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

- A they are very heavy
- B they are very light
- C they are gases
- D they do not react

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12 **What is a reversible reaction?**

A a reaction that can go both ways

B a reaction that needs a catalyst

C a reaction that never finishes

D a reaction that makes two products

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13 **What is made when sodium hydroxide reacts with hydrochloric acid?**

A sodium chloride and water

B sodium oxide and hydrogen

C sodium carbonate and water

D sodium and chlorine

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

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

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15 **A metal is added to a salt solution and no reaction happens. What does that tell you?**

- A the metal is a gas
- B the metal is more reactive than the metal in the salt
- C the metal is less reactive than the metal in the salt
- D the salt is not soluble

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

A they can find tiny amounts of drugs

B they are cheap to run anywhere in the world

C they work without a sample

D they give results in seconds

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17 **Which is the least reactive of these metals?**

A sodium

B gold

C calcium

D potassium

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18 **Why is aluminium extracted by electrolysis?**

A carbon does not react with it

B it is cheap to do

C it is too reactive for carbon

D it melts easily

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19 **Will copper displace zinc from zinc sulfate?**

A no, zinc is more reactive

B yes, zinc is less reactive

C yes, copper is more reactive

D no, copper is less reactive

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20 **A sample containing copper is put in a flame. What colour is the flame?**

- A pale lilac
- B bright yellow
- C green
- D crimson red

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

- A green
- B yellow
- C brick red
- D lilac

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22 **Which of these metals does not react with dilute acid?**

- A iron
- B zinc
- C magnesium
- D copper

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23 **What are the products when an acid reacts with a metal oxide?**

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

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24 **A sample containing sodium is put in a flame. What colour is the flame?**

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

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

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

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ANSWER KEY

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

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