

9H Using chemistry

Extension questions

Science Interactive LTD, PO BOX 50764 LONDON NW6 9AT email: sales@science-interactive.co.uk

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Answer the following questions:



[Click mouse to reveal answer](#)

- Q1. Name the process where new chemical products form from chemical reactants?
- Q2. Give another word for burning something in air?
- Q3. What do we call a rapid expansion of hot gases as a chemical reaction takes place?
- Q4. What do we call a chemical reaction with oxygen?
- Q5. What do we call the process where we produce palatable food by application of heat?
- Q6. What do you call the unwanted reaction between a metal and the atmosphere or water?
- Q7. What do we call a very long molecule formed from a string of identical chemical building blocks? (often a type of plastic)
- Q8. What is a chemical building block used to form plastics called?
- Q9. Name the process of breaking long chain hydrocarbon molecules into more useful short chain molecules?
- Q10. What is the general name for a polymer like polythene, polypropylene, nylon and polystyrene?
- Q11. Name a fossil fuel raw material used to make most plastics?
- Q12. What is a portion of crude oil with a particular boiling point called?
- Q13. What is the technique used to separate liquids with different boiling points called?
- Q14. Name the fossil fuel used in jet aircraft, also called kerosene?
- Q15. What do we call a substance that increases the rate of a chemical reaction but that is not used up itself?
- Q16. What do we call an atom with an excess positive or negative electric charge?

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Answers:

- A1. Reaction
- A2. Combustion
- A3. Explosion
- A4. Oxidation
- A5. Cooking
- A6. Corrosion
- A7. Polymer
- A8. A monomer
- A9. Cracking
- A10. Plastic
- A11. Oil
- A12. A fraction
- A13. Distillation
- A14. Paraffin
- A15. A catalyst
- A16. An ion

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multiple choice

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1: Wood and coal are both fuels. What are the two main combustion products ?

- A Carbon and oxygen
 - B Water and carbon monoxide
 - C Water and oxygen
 - D Carbon dioxide and water
-

2: What is normally needed before a chemical reaction will start ?

- A Temperature must be lowered
 - B Reactants must be stirred
 - C A timer has to be started
 - D Energy has to be supplied
-

3: What gas is said to be the main cause of global warming ?

- A Oxygen
 - B Carbon monoxide
 - C Carbon dioxide
 - D Nitrogen
-

4: An exothermic reaction like combustion of petrol releases what type of energy ?

- A Kinetic energy
 - B Heat energy
 - C Sound energy
 - D Light energy
-

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B Heat energy

C

D

Answer all the questions below:



Click mouse to reveal answer

1) Unscramble the following words:

oidantixo

ecohtndrmie

emthicxoer

icptlare

2) Make three sentences using the following nine words or phrases:

combusting fuels
oxidation
chemical reaction

exothermic
combining material
mass of products

heat energy
oxygen
and reactant

3) Match the word or phrase with the right meaning:

Synthetic



The process by which reactants and products combine

Chemical reaction



A compound that results from metals reacting with oxygen

Metal oxide



A man-made product made using chemical reactions

Answer all the questions below:

1) Unscramble the following words:

oxidation

endothermic

exothermic

particle

2) Make three sentences using the following nine words or phrases:

combusting fuels

oxidation

chemical reaction

exothermic

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mass of products

heat energy

oxygen

and reactant

3) Match the word or phrase with the right meaning:

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complete the sentence

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Place the right word or words to complete the sentence:



Click mouse to reveal answer

link

plastics

energy

oxygen

combustion

products

mass

fuels

ignite

- Exothermic reactions give out _____, whilst endothermic reactions take in energy from the surroundings.
- When a metal reacts with _____ it forms its oxide.
- Crude oil is a mixture of different _____ which can be separated by fractional distillation.
- Petrol is a good fuel, because its cheap, easy to _____ and store.
- The products formed during _____ of a fuel are water and carbon dioxide.
- In a reaction, new _____ are formed from reactants forming new bonds.
- When copper reacts with oxygen, it gains _____.
- New materials like _____ (polythene) can be made from crude oil.
- French Antoine Lavoisier first made the _____ between combustion and oxygen.

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complete the sentence

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Place the right word or words to complete the sentence:

link

plastics

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combustion

products

mass

fuels

ignite

- a) Exothermic reactions give out energy, whilst endothermic reactions take in energy from the surroundings.
- b) When a metal reacts with oxygen it forms its oxide.
- c) Crude oil is a mixture of different fuels which can be separated by fractional distillation.
- d) Petrol is a good fuel, because its cheap, easy to ignite and store.
- e) The products formed during combustion of a fuel are water and carbon dioxide.
- f) In a reaction, new products are formed from reactants forming new bonds.
- g) When copper reacts with oxygen, it gains mass.
- h) New materials like plastics (polythene) can be made from crude oil.
- i) French Antoine Lavoisier first made the link between combustion and oxygen.