

8F Compounds and mixtures

Extension questions

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Answer the following questions:



Click mouse to reveal answer

- Q1. What is the smallest particle of an element called?
- Q2. What contains only one type of atom and is found on the periodic table?
- Q3. What contains two or more elements chemically combined?
- Q4. What contains two or more chemicals together which are not chemically combined?
- Q5. Give a word that means containing only one substance?
- Q6. What chemicals have a pH less than 7 and turn blue litmus paper red?
- Q7. What type of acid that is found in the stomach?
- Q8. Name a reactive alkali metal that is used in yellow street lights?
- Q9. Which type of reaction is very difficult to take in the other direction?
- Q10. What word means to change state from liquid to gas?
- Q11. What word means to change state from liquid to solid?
- Q12. What word means to change state from solid to liquid?
- Q13. What word means to change state from gas to liquid?
- Q14. What is a measure of the average thermal energy per molecule in a substance?
- Q15. What do we call a chemical that contains a metal, carbon and oxygen only?

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Answers:

A1. An atom

A2. An element

A3. A compound

A4. A mixture

A5. Pure

A6. Acids

A7. Hydrochloric acid

A8. Sodium

A9. An irreversible reaction

A10. Boil

A11. Freeze

A12. Melt

A13. Condense

A14. Temperature

A15. A carbonate

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multiple choice

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1: How can you separate out sand from iron filings ?

- A Dissolve the iron and filter sand
 - B Melt the sand and pour it off
 - C Use a magnet to attract the iron
 - D Heat and evaporate off the sand
-

2: Decide which three gases are present in air ?

- A Nitrogen, Hydrogen and Chlorine
 - B Oxygen, Nitrogen and Hydrogen
 - C Nitrogen, Oxygen and Carbon dioxide
 - D Chlorine, Fluorine and Nitrogen
-

3: What is formed when iron is reacted with sulphur ?

- A Iron oxide
 - B Iron chloride
 - C Sulphur dioxide
 - D Iron sulphide
-

4: Sodium chloride is classified as a ?

- A Element
 - B Solution
 - C Mixture
 - D Compound
-

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multiple choice

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A

B

C Use a magnet to attract the iron

D

2: Decide which three gases are present in air ?

A

B

C Nitrogen, Oxygen and Carbon dioxide

D

3: What is formed when iron is reacted with sulphur ?

A

B

C

D Iron sulphide

4: Sodium chloride is classified as a ?

A

B

C

D Compound

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literacy in science

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Answer all the questions below:



Click mouse to reveal answer

1) Unscramble the following words:

mreixtu

ulolesmec

uformla

eelemnt

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

in a compound

hydrogen

copper sulphate

different elements

oxygen combines

contains copper

joined together

forming water

sulphur and oxygen

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

Molecule



Where reactants form new products with different properties

Reaction



Atoms can join up to make these particles during a reaction

Formula



Shows type and number of elements present in a material

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Answer all the questions below:

1) Unscramble the following words:

mixture

molecules

formula

element

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

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oxygen combines

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joined together

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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

carbon

formula

change

salt

easily

elements

filtration

compound

permanent

- The elements found in a _____ can be represented by a chemical formula.
- Copper is an element, copper oxide is a _____ .
- The _____ for salt is NaCl. The formula for Carbon dioxide is CO₂.
- In a mixture, elements or substances can be _____ separated.
- A compound is two or more different _____ joined together by a chemical bond.
- A chemical reaction is a _____ change that makes a new product.
- Elements and compounds when heated can _____ their state.
- A compound with the formula C₆H₁₂O₆ contains 3 elements: _____ , hydrogen and oxygen.
- Sand can be separated from water by _____ .

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complete the sentence

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Place the right word or words to complete the sentence:

carbon

formula

change

salt

easily

elements

filtration

compound

permanent

- a) The elements found in a compound can be represented by a chemical formula.
- b) Copper is an element, copper oxide is a compound.
- c) The formula for salt is NaCl. The formula for Carbon dioxide is CO₂.
- d) In a mixture, elements or substances can be easily separated.
- e) A compound is two or more different elements joined together by a chemical bond.
- f) A chemical reaction is a permanent change that makes a new product.
- g) Elements and compounds when heated can change their state.
- h) A compound with the formula C₆H₁₂O₆ contains 3 elements: carbon, hydrogen and oxygen.
- i) Sand can be separated from water by filtration.