Chemical Reactions for KS3 - Worksheet

Here are some links to videos on related topics.

Acids & Alkalis https://stemlearning.wistia.com/medias/h5g4v5x1vy

Elements, Compounds and Mixtures https://stemlearning.wistia.com/medias/ud8ek2pgsv

Reactivity Series https://stemlearning.wistia.com/medias/c89zz4mgi4

Questions on Chemical reactions

1. Name the type of reaction:
    a. Magnesium + oxygen → Magnesium oxide

        ……..

    b. Copper carbonate → copper oxide + carbon dioxide

        ……..

    c. Nitric acid + sodium hydroxide → sodium nitrate + water

        ……..

    d. Methane + oxygen → carbon dioxide + water

        ……..

    e. Copper sulfate + zinc → zinc sulfate + copper

        ……..

2. Why is burning wood a chemical reaction?

    ……..

3. Hydrocarbons are fuels, which two elements do they contain?

    ……..

4. Explain what is meant by the term ‘conservation of mass’.

    ……..

5. List two disadvantages of burning fossil fuels.

    ……..

6. What are the two products of a neutralisation reaction between an acid and an alkali.

   ……..

7. What is the difference between a thermal decomposition reaction and a combustion reaction?

   ……..

8. Name two common oxidation reactions.

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Chemical Reactions for KS3 - Worksheet (Answers)

1. Name the type of reaction:
    a. Magnesium + oxygen → Magnesium oxide
    Oxidation
    b. Copper carbonate → copper oxide + carbon dioxide
    Thermal decomposition
    c. Nitric acid + sodium hydroxide → sodium nitrate + water
    neutralisation
    d. Methane + oxygen → carbon dioxide + water
    Combustion
    e. Copper sulfate + zinc → zinc sulfate + copper
    Displacement
2. Why is burning wood a chemical reaction?
    The wood reacts with oxygen to produce lots of heat energy and new substances are formed
3. Hydrocarbons are fuels, which two elements do they contain?
    Hydrogen and carbon
4. Explain what is meant by the term ‘conservation of mass’.
    Matter cannot be created or destroyed. There are the same number of atoms of each element in the products and reactants.
5. List two disadvantages of burning fossil fuels.
    Global warming and acid rain
6. What are the two products of a neutralisation reaction between an acid and an alkali.
    Salt and water
7. What is the difference between a thermal decomposition reaction and a combustion reaction?
    Thermal decomposition only has one reactant, in combustion reaction there are two reactants and one must be oxygen.
8. Name two common oxidation reactions.
    Rusting and milk going sour.