Energy changes

Chemistry Paper 1 | 30 quick questions

GCSE science knowledge recall

Answer online, marked instantly

Name: _____ **Date:** _____ **Score:** _____ **/ 30**

1 What is the name for a reaction that transfers energy to the surroundings?

2 What is the name for a reaction that takes in energy from the surroundings?

3 During an exothermic reaction, what happens to the temperature of the surroundings?

4 Name one type of reaction that is always exothermic.

5 Name one type of reaction that is endothermic.

6 Give one everyday product that uses an exothermic reaction to keep you warm.

7 Give one everyday product that uses an endothermic reaction.

8 Energy is not created or destroyed in a reaction, only moved around. What is this idea called?

9 In a practical to measure temperature change, what is the reaction usually done in to reduce energy loss?

10 What instrument is used to measure the temperature change of the reaction mixture?

11 What is the name for the minimum energy that particles must have when they collide for them to react?

12 On a reaction profile, what is shown on the vertical axis?

13 On the reaction profile for an exothermic reaction, are the products higher or lower in energy than the reactants?

14 Use the idea of a reaction profile to explain why an endothermic reaction cools its surroundings.

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15 Is breaking chemical bonds exothermic or endothermic?

Higher

16 Is making chemical bonds exothermic or endothermic?

Higher

17 More energy is released making new bonds than is needed to break the old ones. Is the reaction exothermic or endothermic?

Higher

18 What is the unit for bond energies? Give it in symbols.

Higher

19 In $H_2 + Cl_2 \rightarrow 2HCl$, how many H-Cl bonds are made?

Higher

20 Breaking bonds needs 500 kJ/mol and making bonds releases 700 kJ/mol. What is the overall energy change?

Higher

21 Is the overall energy change of an exothermic reaction positive or negative?

Higher

22 Is the overall energy change of an endothermic reaction positive or negative?

Higher

23 A simple cell can be made from two different metals dipped in what? Answer in one word.

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24 The voltage of a cell is bigger when the two metals are further apart in which list?

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25 A battery is made of two or more of what, connected together in series?

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26 A non-rechargeable cell such as an alkaline battery stops working when one of what is used up?

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27 The reactions in a rechargeable cell can be reversed by applying what?

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28 In a hydrogen fuel cell, hydrogen reacts with which gas?

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29 What is the only product of a hydrogen fuel cell?

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30 Give one advantage of hydrogen fuel cells compared with rechargeable batteries.

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