

1. <b>activation energy</b>	the minimal amount of energy that reactant molecules must possess in order	14. <b>fractional distillation</b>	the distillation of a liquid to separate the fractions with different boiling points present in the liquid; crude oil is fractionally distilled to obtain the various fractions, petrol kerosene etc.
2. <b>alkane</b>	simple hydrocarbon, such as methane or ethane, consisting of carbon and hydrocarbon atoms only with single bonds between carbon atoms	15. <b>fullerenes</b>	a group of carbon structures with spherical or cylindrical shapes; they are an allotrope of carbon
3. <b>allotropes</b>	different forms of the same element in the same physical state; the atoms are arranged in different crystalline or molecular structures; consequently their physical properties, such as density, colour and hardness are different	16. <b>functional group</b>	a group of atoms forming part of the organic compound that influences the physical and chemical properties of the compound
4. <b>carbohydrates</b>	organic compounds that contain carbon, hydrogen and oxygen; examples are glucose starch and cellulose; they are produced in plants by photosynthesis; respiration breaks them down within the body	17. <b>homologous series</b>	a series of compounds, such as alkanes, that can represent a general molecular formula; they have similar and chemical properties
5. <b>catalyst</b>	a substance that alters the rate of a chemical reaction but itself remains unchanged at the end of the reaction; since it remains effectively the same at the end of a reaction, only a small amount is required to catalyse the reaction; catalysts are specific for particular reactions	18. <b>hydrocarbons</b>	molecules that contain only carbon and hydrogen; the carbon chains can be of different lengths with different structure; straight chains, branching chains or rings
6. <b>coal</b>	a fossil fuel formed millions of years ago; it is burnt as fuel, usually in power stations	19. <b>ignition temperature</b>	the lowest temperature at which a combustible substance will ignite and continue burning
7. <b>combustion</b>	the burning of a fuel; heat and usually light are produced	20. <b>isomers</b>	molecules that have the same molecular formula but different structural formulae (the atoms are arranged differently in the molecules)
8. <b>dispersion forces</b>	weak intermolecular forces between molecules	21. <b>IUPAC</b>	the international union of pure and applied chemistry; this body draws up rules for systemic naming of compounds
9. <b>distillation</b>	liquid is the process boiling, collecting and then cooling of the vapour to turn it back into liquid; it is used to purify liquids such as water	22. <b>natural gas</b>	a gas formed naturally on earth and consists mainly of methane, with small amounts of ethane and other compounds; it is used as a fuel
10. <b>endothermic reaction</b>	a chemical reaction in which energy is absorbed from the surroundings (positive)	23. <b>petroleum</b>	a fossil fuel that is a mixture of mainly hydrocarbons; it is separated into the different fractions, which have different uses as fuel and for the synthesis of other compounds such as plastics
11. <b>exothermic reaction</b>	a chemical reaction in which energy is released from the surroundings (negative)	24. <b>photosynthesis</b>	the process by which plants use the energy from sunlight to convert carbon dioxide and water into oxygen and the energy-rich sugar, glucose; energy is stored as carbohydrates
12. <b>explosion</b>	the very rapid combustion of a substance producing a sudden expansion of hot gases, accompanied by a shock wave that can shatter nearby objects	25. <b>pollution</b>	caused by the burning of fossil fuels; the oxides of carbon, nitrogen and sulfur are formed and these are harmful
13. <b>fossil fuels</b>	energy rich substances formed in the earth's crust over millions of years through the action of heat and pressure on decaying plant and animal remains		

26. **rate of reaction** also referred to as the speed of a reaction, and may be expressed as the rate of decrease in the concentration of any reactant, or the rate of increase in the concentration of any product
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27. **respiration** a process occurring in living cells whereby stored energy is released and made available for use by the organism; glucose reacts with oxygen giving carbon dioxide and water; energy is released in the process; it is the reverse of the photosynthesis reaction
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28. **volatility** the readiness of a liquid to vaporise or evaporate, especially at ordinary temperatures
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