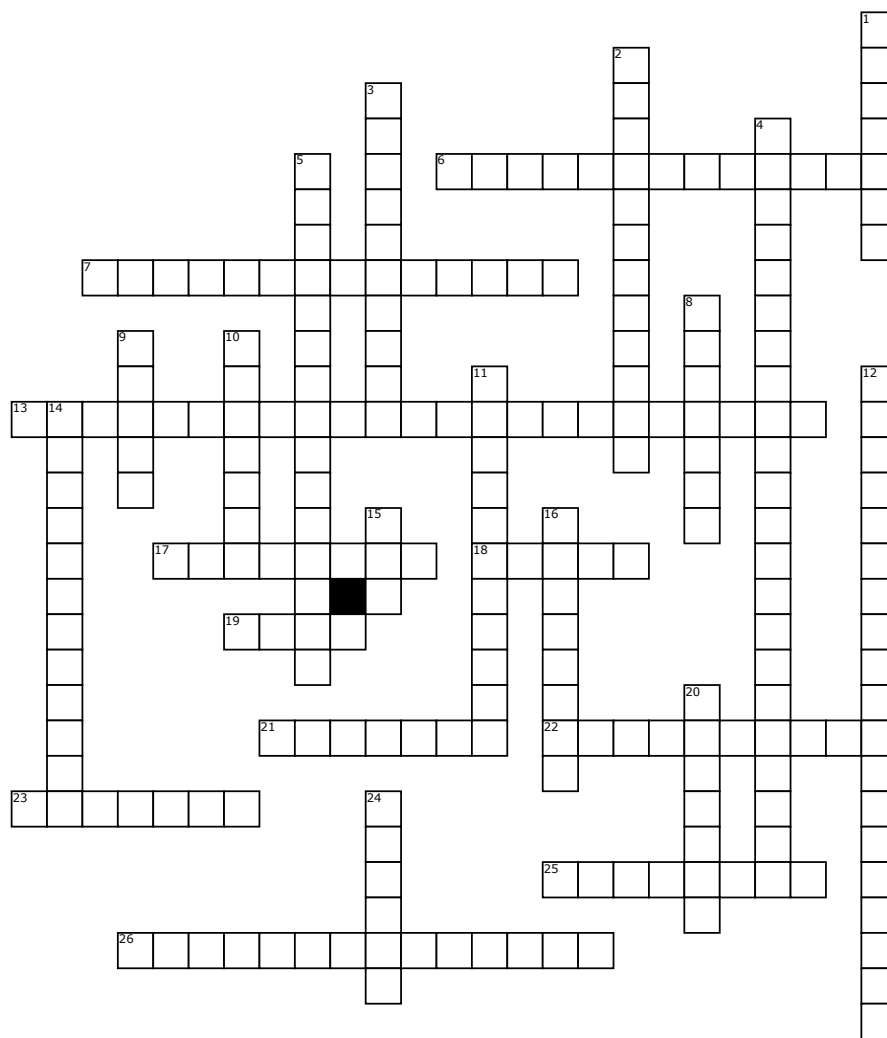


# C1 Atomic structures



## Across

- 6.** an arrangement of elements in the order of their atomic numbers, forming groups and periods  
**7.** an equation that helps you see how much of each substance is involved in a chemical reaction by showing the chemical symbols and formulae of all the reactants and products involved  
**13.** the total mass of the products formed in a reaction is equal to the total mass of the reactants  
**17.** a tiny particle with a negative charge  
**18.** an area in an atom, around its nucleus, where electrons are found  
**19.** the smallest part of an element that can still be recognised as that element  
**21.** fuel made from animal or plant products  
**22.** the very unreactive gases found in Group 0 of the periodic table  
**23.** a substance made as a result of a chemical reaction  
**25.** a substance made when two or more elements are chemically bonded together

- 26.** the process whereby small amounts of dissolved substances are separated by running a solvent along a material such as absorbent paper

## Down

- 1.** the very small and dense central part of an atom that contains protons and neutrons  
**2.** a way of describing what happens in a chemical reaction by showing the names of all reactants and the products they form  
**3.** the number of protons plus neutrons in the nucleus of an atom  
**4.** a symbol equation in which there are equal numbers of each type of atom on either side of the equation  
**5.** the mixture made by adding a soluble substance to water  
**8.** a substance made up of only one type of atom  
**9.** all the elements in the columns in the periodic table  
**10.** atoms that have the same number of protons but different number of neutrons

- 11.** the abbreviations used in balanced symbol equations to show if reactants and products are solid (s), liquid (l), gas (g) or dissolved in water (aq)

- 12.** a set of numbers to show the arrangement of electrons in their shells (or energy levels)  
**14.** the number of protons (which equals the number of electrons) in an atom. It is sometimes called the proton number  
**15.** a charged particle produced by the loss or gain of electrons  
**16.** a substance we start with before a chemical reaction takes place  
**20.** a dense particle found in the nucleus of an atom. It is electrically neutral, carrying no charge  
**24.** a tiny positive particle found inside the nucleus of an atom

## Word Bank

symbol equation	electron	product	atomic number
element	group	mass number	biofuel
balanced symbol equation	atom	reactant	electronic structure
periodic table	neutron	shell	law of conservation of mass
word equation	aqueous solution	chromatography	state symbol
compound	proton	nucleus	isotope
ion	noble gases		