

### 3 MATCH THE WORDS WITH THE DEFINITIONS

A	chlorine	B	something that is not mixed with anything else
B	pure	F	different forms of an element
C	ore	H	to make something shiny and bright
D	jewellery	J	red substance in your body that has iron in it and carries oxygen
E	boil	M	made up of two or more elements
F	isotope	A	a greenish, yellow gas with a strong smell
G	fertilizer	L	something that you put into the soil to make plants grow
H	polish	Q	the middle part of an atom with protons and neutrons
I	acid	C	rock that has metal in it
J	haemoglobin	E	when a liquid becomes hot enough so that it turns into gas
K	limestone	O	to breathe in something
L	fertilizer	P	when gas becomes liquid
M	compound	G	something that you put into the soil to make plants grow
N	power plant	D	small things that you wear that have gold and silver in them
O	inhale	N	building where electricity is produced
P	condense	K	a kind of rock that has calcium in it
Q	nucleus	I	strong liquid that can burn holes in materials or damage your skin

#### 4 FILL IN THE BLANKS WITH THE WORDS FROM THE BOX !

The nucleus is in the middle of an atom . It is made up of protons and neutrons. It has almost all of an atom's mass.

Electrons fly around in an atom very quickly. They move in paths called shells. The inner path can hold only two electrons, the outer paths up to 32. Each proton has a positive electrical charge. Electrons have a negative charge.

The energy of the nucleus keeps the electrons in its orbit. But they often want to break away from the atom. Sometimes one electron is shared by two different atoms.

break  
charge  
electrons  
energy  
mass  
negative  
nucleus  
orbit  
protons  
shared  
shells

#### 5 FILL IN THE BLANKS WITH THE WORDS FROM THE BOX !

Carbon is one of the most important elements on earth. All living creatures have carbon in their bodies. Carbon get together with other elements and can build long chains. Carbon and hydrogen are , for example in petroleum and gas. Carbon dioxide is in the air that we breathe out.

Pure carbon cannot be found very often. Diamonds consist of carbon in its purest form. They are formed under the earth's crust at very high temperature and under a lot of pressure. Industries use diamonds to make drilling heads for oilfields.

Graphite is another form of carbon. It is very light and used for pencils, tennis rackets and bicycles.

bicycles  
carbon dioxide  
chains  
consist  
creatures  
crust  
elements  
graphite  
hydrogen  
light  
oilfields  
pressure

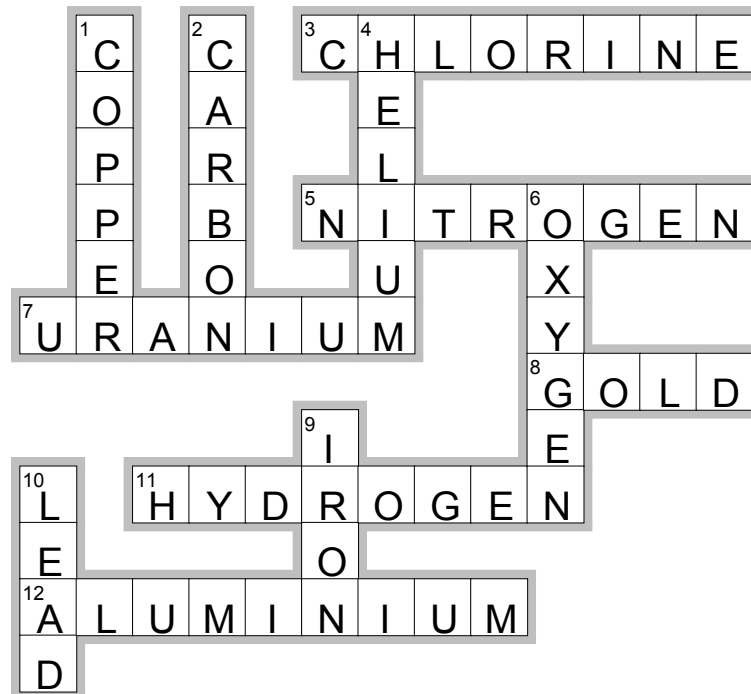
## 6 TRUE OR FALSE ?

	T	F
Electrons do not have an electric charge.		✓
Electrons that move around in the inner shells travel fast.	✓	
The atomic number tells you how many protons an atom has.	✓	
All elements can be found in nature.		✓
Sometimes elements have more neutrons than protons.	✓	
Ions are atoms that gain or lose electrons.	✓	
When you split an atom a lot of energy is created.	✓	
Compounds are atoms that have the same nucleus.		✓
Organic compounds always have hydrogen atoms in them.		✓
Isotopes of an element always have the same number of protons.	✓	

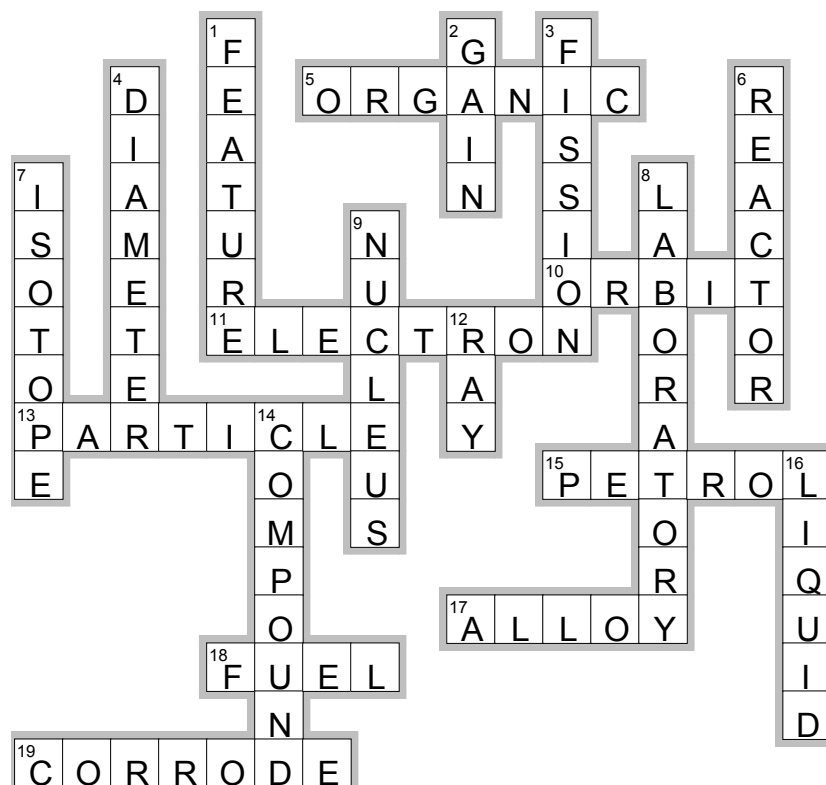
## 8 FIND THE CORRECT ANSWERS

1a - 2c - 3b - 4a - 5b - 6a - 7c - 8c - 9b - 10b - 11c - 12 a  
 - 13a - 14b - 15a - 16c

## 9 CROSSWORD - FIND THE RIGHT ELEMENTS !



## 10 CROSSWORD -



## 11 WHAT DO YOU ASSOCIATE WITH THESE PICTURES? FILL IN FROM THE BOX BELOW !



HELIUM



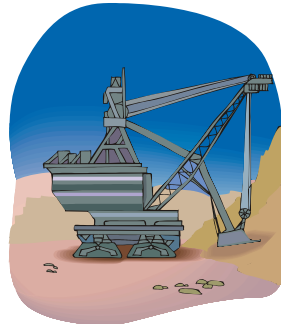
HYDROGEN



GOLD



CARBON



IRON



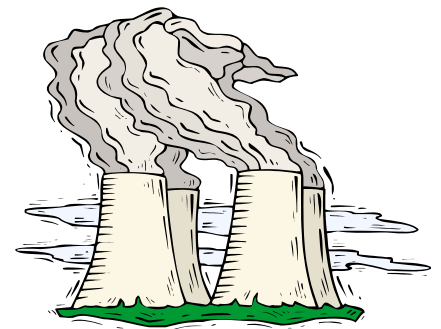
ALUMINIUM



CHLORINE



OXYGEN



URANIUM

ALUMINIUM

GOLD

IRON

CARBON

HELIUM

OXYGEN

CHLORINE

HYDROGEN

URANIUM

**12 MATCH A PART IN A WITH A PART IN B TO FORM A COMPLETE SENTENCE !**

Hydrocarbons are compounds that only have hydrogen and carbon in them.

Helium is a light gas that is used to fill balloons.

Nitrogen is a colourless gas that makes up 78 % of the earth's atmosphere.

Iron ore is melted at very high temperature.

The industry uses diamonds to cut or polish other hard objects.

Chlorine is used to make water in swimming pools cleaner.

About 8 % of the earth's crust is made up of aluminium.

Gold gets into rivers where it sinks to the bottom.

Bauxite is found in rocks of subtropical and tropical countries.

Iron helps our bodies create haemoglobin.