

Y8 Periodic Table Homework Grids

Name: _____

Science Teacher: _____

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Grid 1.1: Use KO 6-9

Due: _____

What are rows and columns of the periodic table called?

Rows –

.....

Columns

.....

Label where you would find metals and non-metals on the periodic table below.

Periodic Table of the Elements

1																	18
2																	
3																	
4																	
5																	
6		*															
7		**															

What are the group 1 elements called?

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Are they metals or non-metals?

.....

How does their reactivity change down the group?

.....

What are the group 7 elements called?

.....

Are they metals or non-metals?

.....

How does their reactivity change down the group?

.....

Grid 1.2: Use KO 6-9

Due: _____

Define an atom

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Define a compound

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Two atoms of the same type join together. What type of substance is made?

.....

Two different types of atoms join together. What type of substance is made?

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Higher: Give the chemical formula for the following compounds:

Magnesium Sulphate –

Sodium Hydroxide –

Add up the mass numbers of their constituent elements.

Mg=24; S=32; O=16; Na=23; H=1

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Which compound is heaviest?

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Grid 1.3: Use KO 6-9

Due: _____

Which formula is the correct way to represent carbon dioxide?

CO CO₂ CO CO₂

Explain your answer.

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.....
.....

Are the below examples of chemical or physical properties?

Boiling point –

Reactivity –

Temperature –

Conductivity –

Colour –

Name the product for when calcium reacts with oxygen?
Give its chemical formula.

HIGHER: Write a word equation to show this reaction

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.....
.....
.....

How many oxygens would the following compounds have?

Carbon monoxide –

Sulphur trioxide –

Silicon dioxide –

Higher:

Sulphur hexafluoride.....

Grid 1.4: Use KO 6-9

Due: _____

What is the word equation for the reaction of sodium with water?

_____ + _____ → _____ + _____

What is the symbol equation for the reaction of sodium with water?

_____ + _____ → _____ + _____

What is the name of elements in Group 0?

.....

Are they reactive or unreactive?

.....

Are they metals or non-metals?.....

What state are they in at room temperature?

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Higher: A halogen is added to potassium chloride and nothing happens, predict the position on the reactivity series in relation to chlorine and justify your prediction.

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Grid 1.5: Use KO 6-9

Due: _____

What is the chemical formula for the complexions below?

Hydroxide –

Sulphate –

Carbonate –

Nitrate –

Phosphate –

What are the definitions for:

Element.....

.....

Mixture

.....

Compound

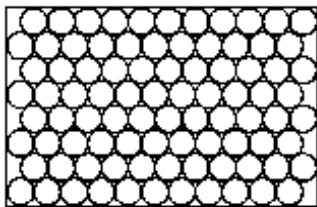
.....

Complete the table below

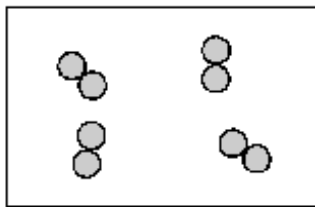
	Number of Protons	Number of Neutrons	Number of Electrons
1 H 1			
4 He 2			
7 Li 3			
9 Be 4			
11 B 5			
12 C 6			
14 N 7			

Grid 1.6: Use KO 6-9

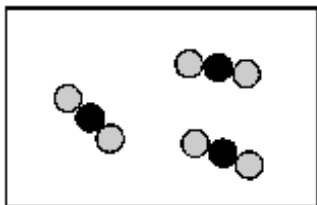
Due: _____



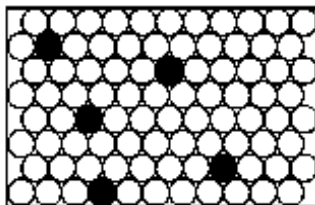
A



B



C



D

Which substance is a compound?

Which substance is a mixture?

Which two substances are elements?

Which two substances could be good thermal conductors?

Which substance could be carbon dioxide?

Sodium chloride is formed when sodium and chlorine combine together in a chemical reaction.

Write the symbols for sodium and chlorine.

..... and

Write a word equation for this reaction?

An iron nail is placed into some blue copper sulphate solution.

Complete the word equation for the reaction.

Iron + copper sulphate → _____ + _____

Describe **one** change you would see on the surface of the nail.

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.....

Grid 1.7: Use KO 6-9

Due: _____

The table gives the numbers of protons, neutrons and electrons in some atoms and ions of elements. The letters used in the table are **not** the chemical symbols of the elements.

atom or ion	protons	neutrons	electrons
J	16	16	16
L	10	10	10
M	11	12	11
Q	12	14	10
R	17	20	17
X	9	10	10
Z	17	18	17

Using the table above, Give the letters of:

Two atoms of the same element

A positive ion (lost an electron)

A negative ion (gained an electron)

An atom or ion which has a mass number of 20

An atom of a very reactive metal;

How many electrons does an atom with an atomic number of 12 have?

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X is an ion. In which group of the periodic table is the element from which **X** is formed?

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From the table above, give the letter of another atom which reacts in a similar way to the element from which ion **X** is formed.

.....

Grid 1.8: Use KO 6-9

Due: _____

An alloy is a mixture of elements.
The table shows the mass of each element present in 100 g of five different alloys, bronze, solder, steel, stainless steel and **brass**.

alloy	mass of each element in 100 g of alloy							
	lead (g)	tin (g)	copper (g)	zinc (g)	carbon (g)	iron (g)	chromium (g)	nickel (g)
bronze		4	95	1				
solder	62	38						
steel					1	99		
stainless steel						70	20	10
brass			67	33				

Which **alloy** in the table above contains an element which is a non-metal?

.....

Which **two alloys** in the table contain only **two metals**?

.....

Another alloy called nichrome contains only the elements chromium and nickel. 100 g of nichrome contains 20 g of chromium. How much nickel does it contain?

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Before 1992, two-pence coins were made of bronze. Steel rusts but bronze does **not** rust. Why does bronze **not** rust?

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Rusting requires water and a gas from the air. Give the name of this gas.

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