

# HEAD START TO A - LEVEL CHEMISTRY

NAME:

## Section 1 – The Structure of the Atom

Read the following sections of the workbook:

- Atomic Structure
- Atomic Structure, Mass Number and Isotopes
- Relative Atomic Mass
- Electronic Structure
- The Periodic Table

Then answer and mark using the answers in back of work book the following questions:

- P1 Neutrons are the perfect criminals Q1 -3
- P2 Finding the number of neutrons Q1 – 3
- P3 Together my brother and I weigh 143Kg Q1 – 5
- P4 Electronic Structure Q1 – 3
- P5 The Periodic Table Q1 – 2





## Section 2 – Formation of Ions

Read the following sections of the workbook:

- Ionisation Energy
- Formation of Ions
- Oxidation Numbers

Then answer and mark using the answers in back of work book the following questions:

- P6 Let it go, let it go, lose electrons from my outer shell Q1 - 3
- P7 I never ask for an anion's opinion Q1 – 3
- P8 Caesar the day Q1 – 3



## **Section 3 – Intermolecular Bonding**

Read the following sections of the workbook:

- Intermolecular Bonding
- Polarity

Then answer and mark using the answers in back of work book the following questions:

- P9 This page was alright Q1 – 2
- P10 Polar Bond Q1 – 2



## Section 4 – Bonding and Properties

Read the following sections of the workbook:

- Ionic Bonding
- Ionic Compounds
- Covalent Bonding
- Small Covalent Molecules
- Giant Covalent Structures
- Metallic Bonding
- Trends in Properties Across the Periodic Table

Then answer and mark using the answers in back of work book the following questions:

- P11 I can't afford  $Mg^{2+}$  Q1 – 2
- P12 Rabbits love studying ionic compounds Q1 – 2
- P13 Friendly atom with GSOH WLTM special someone to share a bond with Q1
- P14 Aisling had four satsumas at lunchtime. Harold had a lone pair Q1 – 2
- P15 Diamonds – don't mess with 'em Q1 – 2
- P16 Metallica bonds Q1 – 3
- P17 Trending now Q1 – 3







## Section 5 – Chemical Equations

Read the following sections of the workbook:

- Writing and Balancing Equations

Then answer and mark using the answers in back of work book the following questions:

- P19 Hold one ear and stare at something still – it'll help you balance Q1 – 3

## Section 6 – Inorganic Chemistry

Read the following sections of the workbook:

- Group 2
- Group 7
- Acids and Bases

Then answer and mark using the answers in back of work book the following questions:

- P20 I love the Group 2 metals Q1 – 2
- P21 I met a friend for coffee today Q1 – 2
- P22 Siobhan always tell the truth, but Alka lies Q1 - 2



## Section 7 – Organic Chemistry

Read the following sections of the workbook:

- Organic Molecules
- Alkanes
- Alkenes
- Polymerisation
- Alcohols

Then answer and mark using the answers in back of work book the following questions:

- P23 Organic chemistry Q1 – 2
- P24 Alkanes are like the weather in the UK Q1 – 3
- P25 'Sleeping butane Q1 – 3
- P26 I'd go on about how great polymers are, but it'd get repetitive Q1 – 2
- P27 Alcohols





## **Section 8 – Chemical Reactions**

Read the following sections of the workbook:

- Reaction Types

Then answer and mark using the answers in back of work book the following questions:

- P30 I'm in the middle of a chain reaction Q1

## Section 9 – Rates of Reactions

Read the following sections of the workbook:

- Reaction Rates
- Collision Theory
- Reaction Rates and Catalysts

Then answer and mark using the answers in back of work book the following questions:

- P31 My rate of chocolate biscuit consumption is worryingly high Q1
- P32 Toast and a large cup of tea Q1 – 3
- P33 Tabbys are number one om my cat list Q1 – 4



## Section 10 – Equilibria

Read the following sections of the workbook:

- Reversible Reactions
- Le Chatelier's Principle
- Equilibrium and Yield

Then answer and mark using the answers in back of work book the following questions:

- P34 Dynamic equilibrium Q1 – 2
- P35 Equilibrium reactions are so stubborn Q1 – 2
- P36 I should put a dodgy pun here, but I won't yield to the pressure Q1 – 2



## Section 11 – Calculations

Read the following sections of the workbook:

- The Mole
- Determination of Formulae from Experiments
- Calculation of Molecular Formulae
- Atom Economy

Then answer and mark using the answers in back of work book the following questions:

- P37 Avocado's constant Q1 – 3
- P38 Roman empirical formula Q1 – 2
- P39 The percentage composition of my fridge is 80% cheese 20% juice Q1 – 3
- P40 Atom (economy) Q1



## Section 12 – Enthalpy

Read the following sections of the workbook:

- Endothermic and Exothermic Reactions
- Bond Energy

Then answer and mark using the answers in back of work book the following questions:

- P41 After that I think I need a cup of tea Q1 – 2
- P42 Ian Fleming was like an exothermic reaction Q1

## **Section 13 – Investigating and Interpreting**

Read the following sections of the workbook:

- Planning Experiments
- Presenting and Interpreting Data
- Conclusions and Error

Then answer and mark using the answers in back of work book the following questions:

- P43 Reduce risk Q1
- P44 I was hoping for a nice result Q1
- P45 You've reached the conclusion Q1

