BALLYMENA ACADEMY CHEMISTRY DEPARTMENT

Year 10 Chemistry
Revision Checklist (November 2026)

Your Year 10 Chemistry examination will be 45 minutes long and will cover the following:

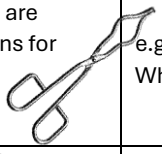
1. Metals and Reactivity (Topic 1) including the symbols/names of common elements.
2. Be able to draw diagrams in section and label the apparatus correctly.
3. Process data from tables and graphs.
4. Draw bar charts.

Bring the following with you to the examination:

- 2 pens
- Pencil, rubber and sharpener label
- 30 cm ruler
- Calculator may be used

Note: You are **not** permitted to take the Data Leaflet/Periodic Table into this examination.

1. Metals and Reactivity

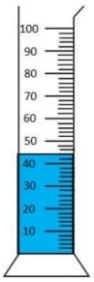
Learning Outcome/Objective	Notes to help with learning/revision
1. Show the position of metals in the Periodic Table.	Metals – left hand side of the 'staircase line', but remember that hydrogen is NOT a metal
2. Know the symbols for common elements in the periodic table. 	You learned this as a homework – see the end of this revision checklist or p.17. Remember if an element has a two letter symbol the first letter is upper case and the second letter is lower case, e.g. "NA", "nA", "na" are all **wrong** – it should be "**Na**".
3. Recall the physical properties of metals and how they link to their everyday uses, giving examples with a reason e.g. electrical wiring.	See page 2 for the properties of a typical metal. Be able to give an appropriate use for a metal based on its properties e.g. copper is used in wiring as it's a good conductor of electricity.
4. Set up an electrical circuit correctly to prove that a metal conducts electricity.	See page 3
5. Burn magnesium **safely**, describe what is seen when calcium and magnesium are burned in air and write word equations for these reactions. 	See page 4 - remember the general idea that: metal + oxygen → metal oxide e.g. calcium + oxygen → calcium oxide What do you see while the reaction occurs? What colour and state (solid, liquid, gas) is the product in each reaction?
6. Explain that the difference in reactivity between metals can be studied using their reactions with water and dilute acids.	See page 5 – 9 and look at the next learning outcomes (7 - 10) in detail. What do you see when the metal is cut? What do you observe when the metal is placed in water?
7. Recall observations and write word equations for the reactions of sodium, potassium and calcium with water.	See pages 5 – 6 and remember the general equation is: reactive metal + water → metal hydroxide + hydrogen e.g. calcium + water → calcium hydroxide + hydrogen
8. Explain the meaning of the term 'exothermic'.	Exothermic = gives out heat (page 5)
9. Recall the products of the reactions between hydrochloric acid and the metals magnesium, zinc, aluminium, copper and iron.	See pages 7 – 9 and remember the general equation is: • reactive metal + acid → salt + hydrogen [Remember **M + A → S + H**] e.g. zinc + hydrochloric acid → zinc chloride + hydrogen Note: **Copper** is unreactive and therefore doesn't react with dilute acid
10. Write word equations for these metals with hydrochloric acid, sulfuric acid and nitric acid.	See page 9 and remember the general equations: • reactive metal + hydrochloric acid → metal chloride + hydrogen • reactive metal + sulfuric acid → metal sulfate + hydrogen • reactive metal + nitric acid → metal nitrate + hydrogen
11. Recall the order of metals in the reactivity series.	See page 8 (You may have learned a mnemonic to help you)

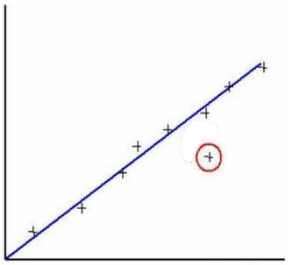
Learning Outcome/Objective	Notes to help with learning/revision
12. Recall that a more reactive metal will replace a less reactive metal from a solution of its compound.	This learning outcome is about **displacement reactions** See page 10
13. Place metals in order of reactivity by studying displacement reactions, carrying out the reactions safely.	See pages 11 - 12
14. Predict the products of displacement reactions.	A more reactive metal displaces a less reactive metal from its salt (compound) e.g. magnesium + copper sulfate → magnesium sulfate + copper - the magnesium has displaced the copper from copper sulfate
15. Write word equations for displacement reactions.	See page 12
16. Carry out key mathematical skills accurately, including unit conversions, calculating averages, and working with percentages.	See pages 13 – 14. If a 30 g coin contains 6.35 g of copper, then % copper is $\frac{6.35}{30}$ x 100 = 21.2 %
17. Recall the names of three unreactive metals and explain what they are used for.	See page 17
18. Be able to compare data e.g. for different types of light bulbs from data given, including running costs and energy efficiency	See pages 15 - 16. Do NOT learn all the information here but be able to carry out a similar comparison from provided data in the examination paper.

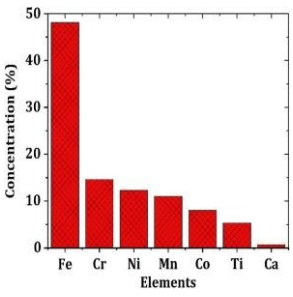
Some key words: anomaly, displacement, ductile, exothermic, lustrous, malleable, sonorous

Skills

Learning Outcome/Objective	Notes to help with learning/revision
1. Be able to draw diagrams in section, label apparatus correctly and be aware of hazards and safety.	Use your practice Practical Skills Booklet A and Booklet B to look at typical questions on these sections. Know what is meant by ***anomaly*** or ***anomalous results***
2. Process data from tables, graphs and diagrams (including scales on measuring equipment e.g. measuring cylinder)	
3. Draw bar charts.	







Element	Symbol
Aluminium	Al
Bromine	Br
Calcium	Ca
Carbon	C
Chlorine	Cl
Copper (cuprum)	Cu
Fluorine	F
Gold	Au
Helium	He
Hydrogen	H
Iodine	I
Iron (ferrum)	Fe
Lead (plumbum)	Pb

Element	Symbol
Magnesium	Mg
Mercury (hydrargum)	Hg
Neon	Ne
Nitrogen	N
Oxygen	O
Phosphorus	P
Potassium (kalium)	K
Silicon	Si
Silver (argentum)	Ag
Sodium (natrium)	Na
Sulfur	S
Tin (stannum)	Sn
Zinc	Zn

CHEMISTRY