Subject	Chemistry A level	
Title/Topic	**Format**	**Length**
Paper 1 –Chemistry	Written	50 mins
Paper 2 – Chemistry	Written	50 mins

In this Advent assessment I will be asked to show I can…

Paper 1

- Identify isotopes and use abundance data to calculate relative atomic masses.
- Deduce the number of subatomic particles for given atoms and ions of an element.
- Construct balanced chemical equations and use state symbols
- Calculate amounts of substance in moles when provided with mass, volume or concentration data.
- Determine empirical formula and molecular formula when given composition by mass and percentage composition data
- Use oxidation numbers to identify species which have been oxidised or reduced
- Define oxidation and reduction in terms of loss or gain of electrons
- Describe how to carry out and be able to analyse the results of a titration
- Describe and explain the organisation of elements on the periodic table
- Explain trends in ionisation energy across a period and down a group

Paper 2

- Use the ideal gas equation to calculate quantities including volume, moles, pressure and temperature.

- Calculate the formula of a hydrated salt from experimental results
- Carry out reacting mass calculations.
- Comment on the sustainability of a reaction from atom economy and percentage yield data
- Determine the arrangement of electrons in atoms or ions of an element
- Predict bond angles and the shapes of simple molecules
- Identify the bonding in a compound and represent it using dot and cross diagrams

- Explain trends in reactivity for group 2 and 17 elements
- Explain the properties of matter including melting and boiling points and link these to structure and bonding
- Explain on the anomalous properties of water

What should I do to revise and prepare for this assessment?

To prepare for this assessment:

1. Ensure you have reviewed material covered in lessons and attempted summary questions
2. Attempt exam questions in the text book – answers available on student drive
3. Use your revision guide.
4. Make flash cards for key knowledge and definitions.