Newport Girls' High School **Y7-11 Learning Overview**

Subject:	Chemistry	**Lead Teacher:**	R Wright	**Year:**	7

Curriculum organisation

Students are taught in mixed groups of 30 for one hour per week. They are not grouped by ability.

Overview of Topics & Key Information

Term	Unit(s) of Work	Key Enquiry Questions	Key Content/ Terminology	Skills developed	How will your child be learning?
Autumn Term	• What is Chemistry?	• How do we work safely in the lab? • How do you light and use a Bunsen burner safely? • Where do you find equipment in the lab? • How do you draw a heating curve for water?	• Label the parts of a Bunsen burner. • Name the apparatus used in the lab. • Line graph. • Independent variable. • Dependent variable	• Identify independent and dependent variables. • Use appropriate techniques, apparatus and materials to carry out practical work safely.	• Whole class discussion • Pair work • Practical activities • Problem-solving tasks • Watching short video clips • Research tasks
	• Acids and alkalis	• What is an acid? • What is an alkali? • How do we measure acidity? • What are the reactions of acids? • How do we test for gases? • What is an equation?	• Acid • Alkali • Indicator • pH • Neutralisation • Salt • Hydrogen • Carbon dioxide	• Use appropriate techniques, apparatus and materials to carry out practical work safely. • Make and record observations and measurements.	
Spring Term	• Separation techniques	• What is a mixture? • How can you separate the components in a mixture?	• Solvent, solute and solution • Dissolving and filtering • Evaporation • Magnetism • Chromatography • Separating funnel • Distillation • Fractional distillation	• Use appropriate techniques, apparatus and materials to carry out practical work safely. • Select plan and carry out investigations to test predictions	
Summer Term	• Particle theory	• How are the particles arranged in solids, liquids and gases? • What words describe changes in state?	• Particle model • Particle arrangement • Energy of particles • Changes of state • State symbols • Diffusion	• Make and record observations and measurements. • Describe patterns in data	
	• Periodic table	• How are the elements arranged in the periodic table? • What are the properties of elements in different groups of the periodic table?	• Metals • Non-metals • History of the periodic table • Mendeleev • Groups and periods • Groups 1, 7 and 0	• Research skills • Use appropriate scientific vocabulary correctly	

Equipment needed for lessons	How will learning and progress be assessed?
• Standard school stationery • Exercise book • Calculator	• End of unit tests (subject knowledge focus) • Formal assessment week (May) • Peer and self-assessment • Homework tasks (often research or project based) • Retrieval practice activities

Extension & Enrichment opportunities	What can you do to support your child?
• STEM Club • Websites which can be used to extend knowledge and reading • https://chemstuff.co.uk/academic-work/year-7/ • https://www.bbc.co.uk/bitesize/subjects/znxtyrd • https://www.footprints-science.co.uk/index.php?type=Periodic_table • https://edu.rsc.org/resources	• Take an active interest in their learning

Inclusion	
In lessons	**Subject specific**
• Teachers follow student passports to ensure that the needs of all students with SEND are met. • Work is enlarged to the necessary size for visually impaired students. • Teachers will ensure that classrooms are quiet learning environments where possible and will dim lights to support students with sensory needs. • Students have the use of laptop if they have a SEND need whereby use of a laptop supports them. • Hearing impaired students are supported through use a radio aid and teachers ensure that students can lip read at all times during lessons. • Dyslexic students are encouraged to use coloured overlays when they are required to read long passages. • Use of dyslexic friendly fonts and coloured backgrounds used in PowerPoints/resources. • Students with ADHD are given movement breaks, fidget toys and lessons are 'chunked' to aid concentration. • Students are seated according to their needs, students work with the SENDCo to decide upon this.	• For pupils with visual impairment, enlarged graph paper for plotting graphs during experiments • Physical impairment – where possible we amend practical equipment or provide a magnifying glass to view instruments • Hearing impaired – show videos with subtitles • Some laboratories have height-adjustable benches for wheelchair access • Cater for latex allergies by providing disposable gloves • Colour blindness

If you have any questions about this Learning Overview, please contact the named Teacher above.