



QPHS Year 9 Science Curriculum Map

Half term	Title	Unit summary	Assessment
1 and 2	Biology 1 Ecosystems, Genetics and Evolution (Teacher 1)	Students will learn about: <ul style="list-style-type: none"> • Ecosystems; abiotic and biotic factors, sampling techniques, adaptations, predator and prey relationships. • Genetics; inheritance and genetic engineering • Evolution; variation and natural selection • Practical skills; variables, methods, graphs and means. 	Demonstrate knowledge and understanding of investigative science and experimental procedures to obtain results used to make conclusions in a practical assessment on the effect of different habitats on maggots. To demonstrate knowledge, apply understanding and analyse information in an end of unit test on biology 1 content with cumulative knowledge from year 8 biology.
	Chemistry 1 Reactions and Changing the Rate of Reactions. (Teacher 2)	Students will learn about: <ul style="list-style-type: none"> • Atoms; elements and compounds • Reactions; word and symbol equations, acids and alkalis, metals and acid reactions • Rates; changing rate of reaction and catalysts • Practical skills; risk assessments, equipment, errors, repeatability and reproducibility. 	Demonstrate knowledge and understanding of investigative science and experimental procedures to obtain results used to make conclusions in a practical assessment on the effect of different catalysts on the rate of reaction. To demonstrate knowledge, apply understanding and analyse information in an end of unit test on chemistry 1 content with cumulative knowledge from year 8 chemistry.
3 and 4	Biology 2 Cells and Organisation (Teacher 1)	Students will learn about: <ul style="list-style-type: none"> • Cells; organelles, eukaryotic, prokaryotic, stem cells, microscopes. • Diffusion as an example of cell transport • Organisation; the digestive system and food tests 	Demonstrate knowledge and understanding of investigative science and experimental procedures to obtain results used to make conclusions in a practical assessment on the effect of surface area on diffusion. To demonstrate knowledge, apply understanding and analyse information in an end of unit test on biology 2 content with cumulative knowledge from year 8 biology 1 and year 7 biology 2.
	Physics 1 Light and Space (Teacher 2)	Students will learn about: <ul style="list-style-type: none"> • Light; reflection, refraction, the eye, dispersion and colour. • Space; our universe, the sun, eclipses, mass and weight and the big bang theory. Practical skills; mean, range, uncertainties and resolution.	Demonstrate knowledge and understanding of investigative science and experimental procedures to obtain results used to make conclusions in a practical assessment on an investigation into changing the angle of incidence on the angle of refraction. To demonstrate knowledge, apply understanding and analyse information in an end of unit test on physics 1 content with cumulative knowledge from year 8 physics.
5 and 6	Chemistry 2 Atomic Structure and the Periodic Table (Teacher 1)	Students will learn about: <ul style="list-style-type: none"> • The atomic structure and arrangement of electrons • Periodic table; development, properties of elements • Separating techniques; distillation, crystallisation, chromatography and fractional distillation. 	Demonstrate knowledge and understanding of investigative science and experimental procedures to obtain results used to make conclusions in a practical assessment on comparing inks for chromatography. To demonstrate knowledge, apply understanding and analyse information in an end of unit test on chemistry 2 content with cumulative knowledge from year 8 chemistry 1 and year 7 chemistry 2.
	Physics 2 The Particle Model and Density (Teacher 2)	Students will learn about: <ul style="list-style-type: none"> • Particle model and gas pressure • Density and how to calculate this • Changes in state and specific latent heat 	Demonstrate knowledge and understanding of investigative science and experimental procedures to obtain results used to make conclusions in a practical assessment on the density of regular and irregular objects. To demonstrate knowledge, apply understanding and analyse information in an end of unit test on physics 2 content with cumulative knowledge from physics 1 and year 8 physics.