

## Curriculum Intent

We want our students to be knowledgeable, curious learners who are able to apply their learning to the real world. We want our students to be able to use scientific language confidently, plan and run investigations to test scientific theories and be able to critically analyse data and evidence provided to them. Our curriculum prepares our learners to better understand the world they live in and make informed and wise choices. The Oasis Science Curriculum prepares students with the fundamental knowledge needed to pursue a range of careers from medicine, to engineering, from astrophysics to careers in geo science.

## Specialist Centre Programme of study – Year 11

**Subject: Science**



Year 11						
Rationale/ narrative	For their final year at Oasis Brislington, our goal is for students to leave us with the confidence and skills they need to succeed as young scientists, should they wish to pursue further study in Science or not. The programme of study in Year 11 covers the final topic for each of Biology, Chemistry and Physics before allowing some time to revisit knowledge they have learnt in Year 9 and 10, exploring it in more detail and practicing ways in which it can be applied.					
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic	Evolution and Systems	Organic Chemistry & polymers	Topic: Application of forces	Revision	Exams	
Content	Natural selection and evolution Evolutionary trees Selective breeding Genetic engineering and modification The nervous system Reflex arcs RP: Investigating human reaction time Homeostasis Mini Quiz The Endocrine system Controlling glucose Diabetes Hormones and the Menstrual cycle Contraception Embryo screening Comparing nervous and hormonal responses	Crude Oil Alkanes Alkenes Bromine Test Fractional Distillation The Fractions Cracking 1 Cracking 2 Ceramics (D only) Polymers (D only) Thermosetting and thermosoftening (D only) Glass (D only) Reducing our human impact (D only) Condensation Amino Acids and	Magnets Magnetic fields Electromagnets The Motor Effect (Flemings' left hand rule) Magnetic Flux Density (Triple only) Generating electricity National Grid and			
Skills	Comparing two different processes Spotting anomalies and reasons for them Spotting	Testing for different chemicals. Writing balanced symbol equations	Analysing graphs Using a manual or digital scale Significant figures and rounding			

	errors (random, systematic, zero errors) Reasons for random, systematic and zero errors) Issues and improvements of method Histogram Frequency Table	Describing different steps in a process	Calculate gradients Selecting appropriate apparatus Significant figures and rounding			
<b>Assessment</b>	End of topic assessment	PPE1	End of topic assessment			