A-Level Biology

Year 12 Curriculum Framework



AS and A-level Biology 7401, 7402

Curriculum Overview

At ICC we follow the AQA Biology AS and A-level Specification. The curriculum is sequenced to be delivered by two members of teaching staff and each unit is mapped to the big ideas from our KS3 and KS4 curriculum. Each unit is assessed with end of topic summative assessments as well as half termly cumulative assessments and formative assessment throughout the course ensures retrieval of relevant content and supports students in making synoptic links. Opportunities to consider rich questions and reference to futures are made where relevant throughout the course in order to help our students understand the present and plan for their own future.

Link to the specification

<u>Link to the scheme of</u> <u>work</u>

		Teacher 1			Teacher 2		
		Topics	Practical's	Big idea	Topics	Practical's	Big idea
Autumn Term	First half	"Does size matter?" baseline unit study linking to surface area and exchange in context 3.1.1 Monomers and polymers 3.1.2 Carbohydrates	SA:V and diffusion Testing for carbohydrates	ORGANISMS	"Does size matter?" baseline unit study linking to surface area and exchange in context 3.2.1 Cell structure	SA:V and diffusion Required practical 2	ORGANISMS
	Second half	3.1.3 Lipids 3.1.4 Proteins 3.1.5 Nucleic acids 3.1.6 ATP 3.1.7 Water 3.1.8 Inorganic ions	Testing for lipids Testing for proteins Required practical 1	ORGANISMS	3.2.1 Cell structure continued 3.2.3 Transport across cell membranes	Required practical 4	ORGANISMS
Spring Term	First half	3.3.1 Surface area: volume ratio3.3.2 Gas exchange3.3.3 Digestion and absorption	Required practical 5 Dissection of fish gills Looking at leaf tissue	ORGANISMS	3.2.3 Transport across cell membranes continued 3.2.4 Cell recognition and the immune system	Required practical 3	ORGANISMS
	Second half	3.3.4 Mass transport 3.4.1 DNA, genes and chromosomes.	Heart dissection Vascular tissue microscopy	ORGANISMS	3.4.3 Genetic diversity 3.4.4 Genetic diversity and adaptation	Required practical 6	GENES
Summer Term	First half	3.4.2 Protein synthesis.		ORGANISMS	3.4.5 Species and taxonomy. 3.4.6 Biodiversity within a community		GENES ECOSYSTEM
	Second half	Revision and preparation for Advanced A-Level			3.4.7 Investigating diversity		GENES ECOSYSTEM