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

Subject:	Biology	**Lead Teacher:**	Mrs S Dainty	**Year:**	10

Curriculum organisation
Students are taught in mixed groups of 30 for two hours per week. They are not grouped by ability.

Overview of Topics & Key Information					**How will your child be learning?**
Term	**Unit(s) of Work**	**Key Enquiry Questions**	**Key Content/ Terminology**	**Skills developed**	• Whole class discussion • Pair work • Practical activities • Problem-solving tasks • Watching short video clips
Autumn Term	• Infection and response - continued • Cell division (mitosis) and stem cells. • Tumours – benign and malignant • Respiration • Photosynthesis	• Where do new cells come from? • The difference between the two types of tumour. • How does respiration change in response to exercise? • How do plants harness the sun's energy in photosynthesis in order to make glucose?	• Mitosis • Stem cells. • Cell cycle •Oxygen debt • Limiting factors • Commercial applications	• Apply biological principles to commercial enterprises • Data analysis Graph interpretation	
Spring Term	• Nervous system • Reproduction	• How does our body bring about a coordinated response to external and internal stimuli? • How do organisms make copies of themselves, passing on their characteristics? • Completing genetic crosses to establish probabilities of inheritance of traits. • Inheritance patterns of disease.	• Sensory, relay and motor neurone • Reflex reaction • Homeostasis • Meiosis • Sexual and asexual reproduction • DNA Protein synthesis	• Practical work – measuring and calculating reaction time	
Summer Term	• Hormonal coordination	• How do hormones control blood glucose levels? • How do hormones and kidney function control water levels? • How do hormones control fertility in females? • How are reproductive hormones used to prevent and encourage pregnancy?	• Endocrine system • Negative feedback • Names of hormones.	• Interpretation of graphs Evaluating and drawing conclusions from data	

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 • Retrieval practice activities

Extension & Enrichment opportunities	What can you do to support your child?
• Lunch time drop in • Biology Google site. Students will have the address in their exercise book. • Websites which are very helpful are: - Cognito https://www.youtube.com/@Cognitoedu - Mr Exham https://www.youtube.com/@MrExhambio - Free Science Lessons https://www.youtube.com/@Freesciencelessons - The Amoeba Sisters https://www.youtube.com/@AmoebaSisters - Miss Estruch https://www.youtube.com/@MissEstruchBiology	• Encourage your child to use the resources on the google site. • Help your child to learn content using retrieval practice methods for example use of flash cards.

Inclusion	
In lessons	**Subject specific**
• All teachers read the individual student passports and SEND requirements. • Teachers will make reasonable adjustments and adapt aspects of their teaching delivery to accommodate viable changes and modifications to allow all pupils to access the subject content. • Exams access - We follow the JCQ guidelines on access in unit tests, end-of-year assessments and mock examinations. • Light sensitivity – students can wear coloured glasses in lessons to reduce glare • Visual impairment – sat in front, larger fonts where possible or magnified photocopies if the article/activity is not available for modification digitally • Hearing impairment – sat in front or where student passport suggests is the best position • Physical impairment – student can under certain circumstances be allocated a word processor. They can also photocopy of classmate's notes, take photos of a classmate's notes to print, change classrooms for mobility or room access • Dyslexia – Word processor as advised by school SEND coordinator • ADHD – Movement breaks, fidget toys • Autism spectrum – clear and logical set of instructions, writing homework on the board, use of ear defenders	• 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

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