## Newport Girls' High School



## Y7-11 Learning Overview

Subject: Biology Lead Teacher: Mrs S Dainty Year: 11

## Curriculum organisation

Students are taught in mixed groups of 28 for three 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	J
Autumn Term	Variation and evolution	<ul> <li>How variation in organisms is achieved.</li> <li>How variation leads to evolution and speciation.</li> <li>How these ideas have changed over time.</li> <li>To consider the evidence that supports the theory of evolution.</li> <li>To consider current examples of evolution such as antibiotic resistant bacteria.</li> </ul>	<ul> <li>Selective breeding</li> <li>Genetic engineering</li> <li>Cloning</li> <li>Evolution</li> <li>Speciation</li> <li>Natural selection</li> </ul>	The ability to link biological concepts and think holistically.  The ability to write extended prose.	<ul> <li>Whole class discussion</li> <li>Pair work</li> <li>Practical activities</li> <li>Problemsolving tasks</li> <li>Watching short video clips</li> </ul>
	Ecology     Biodiversity and human impact (Independent learning module)     Food production and food security	<ul> <li>How does the sun power an ecosystem?</li> <li>How are materials recycled within an ecosystem?</li> <li>What impact are humans having on biodiversity and ecosystems and how do we need to change our behaviours.</li> </ul>	<ul> <li>Classification</li> <li>Community</li> <li>Biotic and abiotic factors</li> <li>Trophic levels</li> <li>Pyramids of biomass</li> <li>Energy transfer</li> <li>Decomposition</li> <li>Role of biotechnology</li> <li>Farming techniques Sustainable fisheries</li> </ul>	Percentage change calculations  Independent learning	
Spring Term	Ecology     Biodiversity and human impact (Independent learning module)     Food production and food security Continued	How does the sun power an ecosystem?     How are materials recycled within an ecosystem?     What impact are humans having on biodiversity and ecosystems and how do we need to change our behaviours.  Continued	<ul> <li>Classification</li> <li>Community</li> <li>Biotic and abiotic factors</li> <li>Trophic levels</li> <li>Pyramids of biomass</li> <li>Energy transfer</li> <li>Decomposition</li> <li>Role of biotechnology</li> <li>Farming techniques Sustainable fisheries Continued</li> </ul>	Percentage change calculations  Independent learning	

Summer	• Teaching complete - revision		
Term	- revision		

Equipment needed for lessons	How will learning and progress be assessed?
Standard school stationery	End of unit tests (subject knowledge focus)
Exercise book	<ul> <li>Formal assessment week (May)</li> </ul>
Calculator	<ul> <li>Peer and self-assessment</li> </ul>
	<ul> <li>Homework tasks</li> </ul>
	Retrieval practice activities

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

Inclusion	
In lessons	Subject specific
<ul> <li>All teachers read the individual student passports and SEND requirements.</li> <li>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.</li> <li>Exams access - We follow the JCQ guidelines on access in unit tests, end-of-year assessments and mock examinations.</li> <li>Light sensitivity – students can wear coloured glasses in lessons to reduce glare</li> <li>Visual impairment – sat in front, larger fonts where possible or magnified photocopies if the article/activity is not available for modification digitally</li> <li>Hearing impairment – sat in front or where student passport suggests is the best position</li> <li>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</li> <li>Dyslexia – Word processor as advised by school SEND coordinator</li> <li>ADHD – Movement breaks, fidget toys</li> <li>Autism spectrum – clear and logical set of instructions, writing homework on the board, use of ear defenders</li> </ul>	<ul> <li>For pupils with visual impairment, enlarged graph paper for plotting graphs during experiments</li> <li>Physical impairment – where possible we amend practical equipment or provide a magnifying glass to view instruments</li> <li>Hearing impaired – show videos with subtitles</li> <li>Some laboratories have height-adjustable benches for wheelchair access</li> <li>Cater for latex allergies by providing disposable gloves</li> </ul>

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