

Year 10 Trilogy Curriculum (Biology)



Holly Lodge
11-19 Science College

Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Focus	<p>Topic 4b- Bioenergetics</p> <ul style="list-style-type: none"> Anaerobic respiration <p>Topic 3a – Infection and response</p> <p>Communicable diseases Pathogens and disease Preventing infection Viral, bacterial, fungal and protest diseases Human defence systems</p>	<p>Topic 3b – Infection and response</p> <p>Preventing and treating diseases Vaccinations Antibiotics and painkillers Discovery and development of drugs Non-communicable disease Cancer Smoking and alcohol Diet and exercise</p>	<p>Topic 5a – Homeostasis</p> <p>Principles of homeostasis The structure and function of the nervous system Reflex actions Principles of hormonal control The control of blood glucose levels Treating diabetes</p>	<p>Topic 5a – Homeostasis</p> <p>The role of negative feedback Human reproduction Hormones and the menstrual cycle Infertility treatment</p> <p>Topic 6a – Reproduction</p> <p>Types of reproduction Cell division in sexual reproduction DNA and the genome</p>	<p>Topic 6a – Reproduction</p> <p>Inheritance Inherited disorders Screening for genetic disorders</p> <p>Topic 6b- Variation and evolution</p> <p>Variation Evolution by natural selection Selective breeding Genetic engineering</p>	<p>Topic 6c- Variation and evolution</p> <p>Genetics and evolution Evidence for evolution Fossils and extinction Antibiotic resistant bacteria Classification</p>
Assessment		<p>Week beginning 1st November tests and review sessions will take place covering all work covered so far this year. To include review questions covering Topic 1: Cell Biology</p>	<p>Week beginning 4th January tests and review sessions will take place covering all work covered so far this year. To include review questions covering Topic 2: Organs and organ systems</p>	<p>Week beginning 1st March tests and review sessions will take place covering all work covered so far this year. To include review questions covering Topic 3: Infection and response</p>	<p>Week beginning 25th April tests and review sessions will take place covering all work covered so far this year. To include review questions covering Topics 1, 2, 3 and 4</p>	<p>Week beginning 13th July Whole school Assessment will take place covering all work covered in Year 9 & 10</p>

Year 10 Separate Science Curriculum (Biology)



Holly Lodge
11-19 Science College

Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Focus	<p>Topic 4b- Bioenergetics Anaerobic respiration</p> <p>Topic 3a – Infection and response Communicable diseases Pathogens and disease Growing bacteria in the lab Preventing bacterial growth Preventing infection Viral, bacterial, fungal and protest diseases Human defence systems Plant diseases</p>	<p>Topic 3b – Infection and response Preventing and treating diseases Vaccinations Antibiotics and painkillers Discovery and development of drugs Monoclonal antibodies Non-communicable disease Cancer Smoking and alcohol Diet and exercise</p>	<p>Topic 5a – Homeostasis Principles of homeostasis The nervous system Reflex actions The brain and the eye</p> <p>Topic 5b – Hormonal control The control of blood glucose levels Treating diabetes The role of negative feedback Human reproduction Hormones and the menstrual cycle Infertility treatment Plant hormones</p>	<p>Topic 5c – Homeostasis In action Controlling body temperature Removing waste products The human kidney Kidney dialysis and transplants</p> <p>Topic 6a – Reproduction Types of reproduction Cell division in sexual reproduction DNA and the genome DNA structure, protein synthesis Gene mutation Inheritance</p>	<p>Topic 6b- Variation and evolution Variation Evolution by natural selection Selective breeding Genetic engineering Cloning</p> <p>Topic 6c- Genetics and evolution Darwin, speciation Genetics and evolution Evidence for evolution Fossils and extinction Antibiotic resistant bacteria Classification</p>	<p>Revision</p> <p>Topic 7a Ecology The importance of communities Organisms in their environment Distribution and abundance Competition Adaptation</p>
Assessment		<p>Week beginning 1st November tests and review sessions will take place covering all work covered so far this year. To include review questions covering Topic 1: Cell Biology</p>	<p>Week beginning 4th January tests and review sessions will take place covering all work covered so far this year. To include review questions covering Topic 2: Organs and organ systems</p>	<p>Week beginning 1st March tests and review sessions will take place covering all work covered so far this year. To include review questions covering Topic 3: Infection and response</p>	<p>Week beginning 25th April tests and review sessions will take place covering all work covered so far this year. To include review questions covering Topics 1,2, 3 and 4</p>	<p>Week beginning 13th July Whole school Assessment will take place covering all work covered in Year 9 & 10</p>

Year 11 Trilogy Science Curriculum (Biology)



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Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Focus	Topic 4b- Bioenergetics Anaerobic respiration Topic 6a – Reproduction Inheritance Inherited disorders Screening for genetic disorders Topic 6b- Variation and evolution Variation Evolution by natural selection	Selective breeding Genetic engineering Topic 6c- Variation and evolution Genetics and evolution Evidence for evolution Fossils and extinction Antibiotic resistant bacteria Classification	Topic 7a Ecology The importance of communities Organisms in their environment Distribution and abundance Competition Adaptation	Topic 7b Ecology Organising an ecosystem Feeding relationships Materials cycling The carbon cycle Topic 7c Ecology Biodiversity and the ecosystems Human population Pollution Deforestation and peat destruction Global warming Biodiversity	Revision and exam preparation	Revision and exam preparation
Assessment	Week beginning 18 th October tests and review sessions will covering all work covered so far this year. To include review questions covering Organs and organ systems	Whole school assessment week starting 22nd November. Tests to cover all work in B1,B2,B3,B4 (Paper 1 content)	Week beginning 14 th February tests and review sessions covering all work covered so far this year. To include review questions Infection and response	Whole school assessment week starting 7th March. Tests to cover all work in B5,B6,B7 (Paper 2 content)	GCSE Assessments	GCSE Assessments

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Focus	<p>Topic 4b- Bioenergetics</p> <ul style="list-style-type: none"> Anaerobic respiration <p>Topic 6a – Reproduction</p> <p>Types of reproduction Cell division in sexual reproduction DNA and the genome DNA structure, protein synthesis Gene mutation Inheritance</p>	<p>Topic 6b- Variation and evolution</p> <p>Variation Evolution by natural selection Selective breeding Genetic engineering Cloning</p> <p>Topic 6c- Genetics and evolution</p> <p>Darwin, speciation Genetics and evolution Evidence for evolution Fossils and extinction Antibiotic resistant bacteria; Classification</p>	<p>Topic 7a Ecology</p> <p>The importance of communities Organisms in their environment Distribution and abundance Competition Adaptation</p>	<p>Topic 7b Ecology</p> <p>Organising an ecosystem Feeding relationships Materials cycling The carbon cycle</p> <p>Topic 7c Ecology Biodiversity and the ecosystems</p> <p>Human population Pollution Deforestation and peat destruction Global warming Biodiversity</p>	<p>Revision and exam preparation</p>	<p>Revision and exam preparation</p>
Assessment	<p>Week beginning 18th October tests and review sessions will covering all work covered so far this year. To include review questions covering Organs and organ systems</p>	<p>Whole school assessment week starting 22nd November. Tests to cover all work in B1,B2,B3,B4 (Paper 1 content)</p>	<p>Week beginning 14th February tests and review sessions covering all work covered so far this year. To include review questions Infection and response</p>	<p>Whole school assessment week starting 7th March. Tests to cover all work in B5,B6,B7 (Paper 2 content)</p>	<p>GCSE Assessments</p>	<p>GCSE Assessments</p>