



APHS CURRICULUM AND ASSESSMENT PLAN

BIOLOGY 2021-22

Mrs S Kelly
Head of Science

Skelly6nrr@nsix.org.uk



Year 7 – Assessment Plan BIOLOGY

Please note that if your child has more than one teacher for biology, then they may do different parts of the same topic with each teacher. E.g. teacher 1 teaches 8.1 organisms movement, teacher 2 teaches 8.2 organisms cells. A small online assessment may be done when a class has completed a section.

Term	Unit	Topics	Dates
Autumn 1	8.1 organisms movement	Levels of organisms The skeleton Movement joints Movement muscles	w/b Mon 6 th Sept 2021 – Wed 20 th Oct 2021
Assessment 1 Submission			When topic complete
Assessment 1 Feedback			That lesson or subsequent lesson
Autumn 2	8.2 organisms cells	Observing cells Plant and animal cells Specialised cells Movement of substances Uni cellular organisms	w/b Mon 1 st Nov 2021 – Thurs 16 th Dec 2021
Assessment 2 Submission			When topic complete
Assessment 2 Feedback			That lesson or subsequent lesson
Spring 1	9.1 ecosystems interdependence	Food test and webs Disruption to food chains and webs Ecosystems Competition	w/b Tue 4 th Jan 2022 – Fri 11 th Feb 2022
Assessment 3 Submission			When topic complete
Assessment 3 Feedback			That lesson or subsequent lesson
Spring 2	9.2 ecosystems plant reproduction	Flowers and pollination Fertilisation and germination Seed dispersal	w/b Mon 21 st Feb 2022 – Fri 1 st Apr 2022
Assessment 4 Submission			When topic complete
Assessment 4 Feedback			That lesson or subsequent lesson
Summer 1	10.1 Genes - Variation	Variation Continuous and discontinuous Adapting to change	w/b Tue 19 th Apr 2022 – Fri 27 th May 2022
Assessment 5 Submission			When topic complete
Assessment 5 Feedback			That lesson or subsequent lesson
Summer 2	10.2 Genes – Human Reproduction	Adolescence Reproductive system Fertilisation and Implantation Development of the foetus	w/b Mon 6 th Jun 2022 – Fri 22 nd July 2022



		The menstrual cycle	
Assessment 6 Submission			When topic complete
Assessment 6 Feedback			That lesson or subsequent lesson



Year 8 – Assessment Plan

Please note that if your child has more than one teacher for biology, then they may do different parts of the same topic with each teacher. E.g. teacher 1 teaches 8.1 organisms movement, teacher 2 teaches 8.2 organisms cells, A small online assessment may be done when a class has completed a section.

Term	Unit	Topics	Dates
Autumn 1	8.3 Organisms - Breathing	Gas exchange Breathing Drugs Alcohol Smoking	w/b Mon 6 th Sept 2021 – Wed 20 th Oct 2021
Assessment 1 Submission			When topic complete
Assessment 1 Feedback			That lesson or subsequent lesson
Autumn 2	8.4 Organisms - Digestion	Nutrients Food tests Unhealthy diet Digestive system Bacteria and enzymes in digestion	w/b Mon 1 st Nov 2021 – Thurs 16 th Dec 2021
Assessment 2 Submission			When topic complete
Assessment 2 Feedback			That lesson or subsequent lesson
Spring 1	9.3 Ecosystems -	Aerobic respiration Anaerobic respiration Biotechnology	w/b Tue 4 th Jan 2022 – Fri 11 th Feb 2022
Assessment 3 Submission			When topic complete
Assessment 3 Feedback			That lesson or subsequent lesson
Spring 2	9.4 Ecosystems -	Photosynthesis Leaves Investigating photosynthesis Plant minerals	w/b Mon 21 st Feb 2022 – Fri 1 st Apr 2022
Assessment 4 Submission			When topic complete
Assessment 4 Feedback			That lesson or subsequent lesson
Summer 1	10.3 Genes -	Natural selection Charles Darwin Extinction Preserving Biodiversity	w/b Tue 19 th Apr 2022 – Fri 27 th May 2022
Assessment 5 Submission			When topic complete
Assessment 5 Feedback			That lesson or subsequent lesson



Summer 2	10.4 Genes	Inheritance DNA Genetics Genetic Modification	w/b Mon 6 th Jun 2022 – Fri 22 nd July 2022
Assessment 6 Submission			When topic complete
Assessment 6 Feedback			That lesson or subsequent lesson



Year 9 – Assessment Plan

Please note that we start the GCSE course in year 9, at a much slower pace to enable all pupils to understand and build a good foundation for year 10. The topics covered are the same for separate science and trilogy (double) science. Please note that some classes have 2 chemistry teachers and may do a different order.

Term	Unit	Topics	Dates
Autumn 1	B1 Cells and organisation	The world of the microscope Animal and plant cells Eukaryotic and Prokaryotic cells Specialisation in animal cells Specialisation in plant cells	w/b Mon 6 th Sept 2021 – Wed 20 th Oct 2021
Assessment 1 Submission			When topic complete
Assessment 1 Feedback			That lesson or subsequent lesson
Autumn 2	B1 Cells and organisation	Diffusion Osmosis Osmosis in plants Active Transport Exchanging materials	w/b Mon 1 st Nov 2021 – Thurs 16 th Dec 2021
Assessment 2 Submission			When topic complete
Assessment 2 Feedback			That lesson or subsequent lesson
Spring 1	B3 Organisation and the digestive system	Tissues and Organs The Human Digestive system The chemistry of food Catalysts and enzymes	w/b Tue 4 th Jan 2022 – Fri 11 th Feb 2022
Assessment 3 Submission			When topic complete
Assessment 3 Feedback			That lesson or subsequent lesson
Spring 2	B3 Organisation and the digestive system	Factors affecting enzyme action How the digestive system works Making digestion efficient	w/b Mon 21 st Feb 2022 – Fri 1 st Apr 2022
Assessment 4 Submission			When topic complete
Assessment 4 Feedback			That lesson or subsequent lesson
Summer 1	B4 Organising animals and plants	The blood The blood vessels The heart Helping the heart	w/b Tue 19 th Apr 2022 – Fri 27 th May 2022
Assessment 5 Submission			When topic complete
Assessment 5 Feedback			That lesson or subsequent lesson



Summer 2	B4 Organising animals and plants	Breathing and gas exchange Aerobic respiration The response to exercise Anaerobic respiration Metabolism and the liver	w/b Mon 6 th Jun 2022 – Fri 22 nd July 2022
Assessment 6 Submission			When topic complete
Assessment 6 Feedback			That lesson or subsequent lesson



Year 10 – Assessment Plan

Please note that some classes have 2 Biology teachers and may do a different order. The separate only content will have (S) . As the separate biologists have more lessons they will go through the chapters at a different rate.

Term	Unit	Topics	Dates
Autumn 1	B5 – communicable disease	Health and disease Pathogens and disease Growing bacteria in a lab (S) Preventing bacterial growth (S) Preventing infections Viral Diseases Bacterial diseases Diseases caused by fungi and protists Human defence responses More about plant diseases (S) Plant defence responses (S)	w/b Mon 6 th Sept 2021 – Wed 20 th Oct 2021
Assessment 1 Submission			When topic complete
Assessment 1 Feedback			That lesson or subsequent lesson
Autumn 2	B6 – Preventing and treating disease B7 – Non-communicable disease	Vaccination Antibiotics and painkillers Discovering drugs Developing drugs Making monoclonal antibodies (S) Uses of monoclonal antibodies (S) Non – communicable disease Cancer Smoking and the risk of disease Diet, exercise and disease Alcohol and other carcinogens	w/b Mon 1 st Nov 2021 – Thurs 16 th Dec 2021
Assessment 2 Submission			When topic complete
Assessment 2 Feedback			That lesson or subsequent lesson
Spring 1	B8 - Photosynthesis B2 – Cell division	Tissues and organs of a plant Transport systems in plants Photosynthesis The rate of photosynthesis How plants use glucose Evaporation and transpiration Factors affecting transpiration Making the most of photosynthesis Cell division Growth and differentiation Stem cells----- stem cell dilemmas	w/b Tue 4 th Jan 2022 – Fri 11 th Feb 2022



Assessment 3 Submission			When topic complete
Assessment 3 Feedback			That lesson or subsequent lesson
Spring 2	B10 – The Human Nervous system	Principles of homeostasis The structure and function of the nervous system Reflex actions The brain (S) The eye (S) Common problems with the eye (S)	w/b Mon 21 st Feb 2022 – Fri 1 st Apr 2022
Assessment 4 Submission			When topic complete
Assessment 4 Feedback			That lesson or subsequent lesson
Summer 1	B11 – Hormonal coordination	Principles of hormonal control The control of blood glucose levels Treating diabetes The role of negative feedback Human reproduction Hormones and the menstrual cycle The artificial control of fertility Infertility treatments Plant hormones and responses (S) Using plant hormones (S)	w/b Tue 19 th Apr 2022 – Fri 27 th May 2022
Assessment 5 Submission			When topic complete
Assessment 5 Feedback			That lesson or subsequent lesson
Summer 2	B12 – Homeostasis (S) B13 – Reproduction	Controlling body temperature (S) Removing waste products (S) The human kidney (S) Dialysis – An artificial kidney (S) Kidney Transplants (S) Types of Reproduction Cell division in sexual reproduction The best of both worlds (S) DNA and the Genome DNA structure and protein synthesis (S) Gene expression and mutation (S) Inheritance in action More about genetics Inherited disorders Screening for genetic disorders	w/b Mon 6 th Jun 2022 – Fri 22 nd July 2022
Assessment 6 Submission			When topic complete
Assessment 6 Feedback			That lesson or subsequent lesson



Year 11 – Assessment Plan

Please note that some classes have 2 Biology teachers and may do a different order. The separate only content will have (S) . As the separate biologists have more lessons they will go through the chapters at a different rate.

Term	Unit	Topics	Dates
Autumn 1	B14 – Variation and evolution	Variation Evolution by natural selection Selective breeding Genetic engineering Cloning (S) Adult cell cloning (S) Ethics of genetic engineering	w/b Mon 6 th Sept 2021 – Wed 20 th Oct 2021
Assessment 1 Submission			When topic complete
Assessment 1 Feedback			That lesson or subsequent lesson
Autumn 2	B15 – Genetics and evolution	The History of genetics (S) Theories of evolution (S) Accepting Darwin's ideas (S) Evolution and speciation (S) Evidence for evolution Fossils and extinction More about extinction Antibiotic resistant bacteria Classification New systems of classification	w/b Mon 1 st Nov 2021 – Thurs 16 th Dec 2021
Assessment 2 Submission			When topic complete
Assessment 2 Feedback			That lesson or subsequent lesson
Spring 1	B16 Adaptations, interdependence and competition	The importance of communities Organisms in their environment Distribution and abundance Competition in animals Competition in plants Adapt and survive Adaptation in animals Adaptation in plants	w/b Tue 4 th Jan 2022 – Fri 11 th Feb 2022
Assessment 3 Submission			When topic complete
Assessment 3 Feedback			That lesson or subsequent lesson
Spring 2	B17 Organising an ecosystem	Feeding relationships Materials cycling The carbon cycle Rates of decomposition (S)	w/b Mon 21 st Feb 2022 – Fri 1 st Apr 2022
Assessment 4 Submission			When topic complete



Assessment 4 Feedback			That lesson or subsequent lesson
Summer 1	B18 – Biodiversity and ecosystems	The Human population explosion Land and water pollution Air pollution Deforestation and peat destruction Global warming The impact of change (S) Maintaining biodiversity Trophic levels and biomass (S) Biomass transfers (S) Factors affecting food security (S) Making food production efficient (S) Sustainable food production (S)	w/b Tue 19 th Apr 2022 – Fri 27 th May 2022
Assessment 5 Submission			When topic complete
Assessment 5 Feedback			That lesson or subsequent lesson
Summer 2	Exams	Revision for exams	w/b Mon 6 th Jun 2022 – Fri 22 nd July 2022
Assessment 6 Submission			When topic complete
Assessment 6 Feedback			That lesson or subsequent lesson