

Course planner

You will find a more detailed lesson plan in the scheme of work document, which gives suggested teaching times for each unit. This is editable so that you can customise it to meet your own needs. An overview of a two- year course planner might be as follows, each week accounts for 2 Guided Learning Hours over 60 weeks of teaching to give a total of 120 hours.

Two- year course planner

Week No.	Topic	Lesson content	Sub-topics covered
1	Section 1 Cells and Tissues 12 hours	1.1, 1.2	Cell structures and functions
2		1.3, 1.4	Structure of DNA and DNA replication
3		1.5, 1.6, 1.7, 1.8	Protein synthesis and mutations
4 (a)		1.9	Genetic engineering
4 (b)		Consolidation and assessment	Cell structure DNA replication and genetic engineering
5		1.10, 1.11, 1.12, 1.13	Mitosis Stem cells Ethics
6		1.14, 1.15, 1.16	Cells, tissues and organs Bone and muscle Specialised cells
7	Section 2 Biological Molecules 11 hours	2.1, 2.2, 2.3	Elements present Structures of molecules Tests for molecules
8		2.4, 2.5	Embedded practicals
9		2.6, 2.7	Enzymes as catalysts Factors affecting enzymes
10		2.8	Embedded practical
11		2.9, 2.10	Immobilised enzymes + embedded practical
12 (a)		Consolidation and assessment	Enzymes
12 (b)	Section 3 Movement of Substances 3 hours	3.1, 3.2	Definitions + osmosis
13		3.3	Factors affecting movement
14	Section 4 Bones, Muscles and Joints 4 hours	4.1, 4.2, 4.3	Skeleton Joints Structure of synovial joint
15		4.4, 4.5, 4.6	Muscles Dietary factors Osteoporosis

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16	Section 5 Coordination 16 hours	5.1, 5.2, 5.3	Neurone structure CNS Main areas of the brain
17		5.4, 5.5, 5.6,	Reflex arc Receptors Impulse pathway
18		5.7, 5.8	Initiation of impulses + embedded practical
19		5.9, 5.10	Nervous system vs hormones Action of various hormones
20		5.11, 5.12	Structure and function of the eye Eye defects
21		5.13, 5.14, 5.15	Structure and function of the ear Noise Embedded practical
22		5.16, 5.17	Legal and illegal drugs Alcohol
23 (a)		5.18, 5.19	Mental illness
23 (b)		Consolidation and assessment	Neurons, reflexes, impulses, hormones, eye, ear, drugs, alcohol, mental illness
24	Section 6 Nutrition and Energy 10 hours	6.1, 6.2, 6.3, 6.4	Balanced diet Variations & sources in diet Deficiency diseases
25		6.5, 6.6, 6.7	Alimentary canal Peristalsis Digestive enzymes
26		6.8, 6.9	Bile, Structure of villus
27		6.10	Teeth
28 (a)		6.11, 6.12	BMI Obesity Food hygiene
28 (b)		Consolidation and assessment	Diet, alimentary canal, digestion, teeth, BMI, food hygiene
29	Section 7 Respiration 4 hours	7.1, 7.2, 7.3	Respiration + embedded practical
30 (a)		7.4, 7.5, 7.6	Anaerobic respiration ATP
30 (b)		Consolidation and assessment	Respiration & ATP

Week No.	Topic	Lesson content	Sub-topics covered
31	Section 8 Gas Exchange 12 hours	8.1, 8.2, 8.3	Gas exchange system Ventilation Diffusion
32		8.4, 8.5	Vital capacity Tidal volume Spirometer + embedded practical
33		8.6, 8.7, 8.8, 8.9	Chemoreceptors Aerobic exercise Pulse rate and heart rate
34		8.10, 8.11	Heart rate and adrenaline + embedded practical
35		8.12, 8.13	Oxygen debt Smoking
36		Consolidation and assessment	Gas exchange, exercise, oxygen debt Smoking
37	Section 9 Internal Transport 12 hours	9.1, 9.2, 9.3	Composition of the blood Role of plasma Tissue fluid
38		9.4, 9.5, 9.6, 9.7	Red blood cells ABO blood groups White blood cells
39		9.8, 9.9	Blood vessel structure plan of circulatory system
40		9.10, 9.11, 9.12	Heart structure Heart disease Heart transplants
41		9.13, 9.14, 9.15, 9.16, 9.17	Treatment and prevention Hypertension ACE inhibitors
42 (a)		9.18, 9.19	Monoclonal antibodies
42 (b)		Consolidation and assessment	Blood, tissue fluid, heart, heart disease
43	Section 10 Homeostatic Mechanisms 12 hours	10.1	Skin and thermoregulation
44		10.2, 10.3, 10.4	Excretion Renal system Urine composition
45		10.5, 10.6	Osmoregulation
46		10.7, 10.8	Insulin Glucagon Homeostasis and negative feedback
47		10.9, 10.10, 10.11	Transplants Dialysis Embedded practical Liver
48		Consolidation and assessment	Homeostasis, thermoregulation, osmoregulation, negative feedback

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Week No.	Topic	Lesson content	Sub-topics covered
49	Section 11 Reproduction and Hereditary 14 hours	11.1, 11.2, 11.3, 11.23, 11.24	Fertilisation Division of zygote Meiosis Variation
50		11.4, 11.5, 11.6, 11.7	Structure of reproductive systems Menstrual cycle Pregnancy Secondary sexual characteristics
51		11.8, 11.9, 11.10, 11.11, 11.12	Birth Growth curves Contraception IVF
52		11.13, 11.14, 11.15, 11.16, 11.17	Genetic terms XX & XY Sex determination Random fertilisation
53		11.18, 11.19, 11.20	Multiple alleles Monohybrid inheritance Pedigree charts
54		11.21	Dominant Recessive and sex linked conditions
55 (a)		11.22	Gene therapy
55 (b)		Consolidation and assessment	Reproduction and inheritance
56	Section 12 Disease 10 hours	12.1, 12.2, 12.3, 12.4	Disease Pathogens Viruses and HIV
57		12.5, 12.6, 12.7, 12.8	Bacteria and disease Cholera Gonorrhea ORT
58		12.9, 12.10, 12.11	Fungal diseases Malaria
59		12.12, 12.13, 12.14, 12.15, 12.16	Vaccines Immunity Antibiotics Resistant pathogens
60 (a)		12.17, 12.18	Non-pathogenic bacteria Sewage
60 (b)		Consolidation and assessment	Disease, pathogens, viruses, bacteria, fungi, vaccines, immunity, sewage