

What are the aims and intentions of this curriculum?

Building on the foundations of Year 12, the second year of this course takes your learning to the next level and firmly positions you for progression into higher education or professional practice. Students who complete this qualification have gone on to study nursing, midwifery, biomedical science, social work, public health, physiotherapy, paramedic science and psychology at universities across the country as well as securing competitive NHS degree apprenticeships and healthcare support roles.

In Year 13, Unit 2 (Human Biology and Health) develops your scientific understanding of the human body from cells and tissues through to the major body systems and the diseases and disorders that affect them. This knowledge is directly relevant to roles in clinical settings, healthcare science, pharmacy and health education. Disorders from Learning Aim C are taught alongside the relevant body system as soon as the underpinning physiology is established, rather than as a separate end-of-year block. This approach mirrors the Unit 2 exam structure, in which students must explain how a disorder affecting one body system has an impact on others.

Unit 5 (Promoting Health Education) prepares you to design and deliver health interventions, a skill valued across public health, nursing, social prescribing, community health and health promotion careers. By the end of this year, you will have the academic profile, the subject knowledge and the professional awareness to take the next confident step in your health and social care career.

Term	Topics / Content	Knowledge & Key Terms	Skills Developed	Assessment
Autumn 1 Unit 2 Human Biology & Health	Content Area A – Organisation of the Human Body - A1: Cells – membrane, nucleus, ribosomes, mitochondria; specialised cell types and functions - A2: Tissues – simple and compound epithelial; connective tissue (blood, bone, areolar, adipose); muscle (striated, non-striated, cardiac); nervous tissue (sensory, motor neurones, neuroglia) - A3: Energy in the body – aerobic and anaerobic respiration; catabolic and anabolic reactions; BMR calculation;	Key Terms - Organelle, membrane, nucleus, ribosome, mitochondria, cell differentiation - Epithelial, connective, muscle, nervous tissue - Striated, non-striated, cardiac muscle; sensory/motor neurone, neuroglia - Aerobic, anaerobic, ATP, glucose, lactic acid, oxygen debt	Skills 3D model building: animal cell organelles - Labelling and annotating biological diagrams - Peer teaching: tissue types (expert jigsaw groups) - Compare and contrast table: aerobic vs anaerobic respiration - BMR calculation and interpretation - Exam-style practice questions	Ongoing Assessment - End-of-section exam-style question practice - Knowledge check quizzes

	uses of energy (movement, growth, repair, thermogenesis)	Catabolic, anabolic, metabolism, BMR (Basal Metabolic Rate)		
	Learning Aim A – Purpose & Role of Health Education - A1: Five purposes of health education; national campaigns (Better Health, Stoptober, This Girl Can, Act FAST, Drinkaware) - Historical vs current campaigns – evolution of health education approaches - A2: Role of health education – 4 main roles; how organisations identify health priorities - Role of OHID and DHSC at national and local level - Health education in disease prevention: NHS Health Check, screening, COVID-19 campaign	Key Terms - Health education, health promotion, public health - Primary, secondary, tertiary prevention - OHID, DHSC, target audience, health campaign, health literacy, health inequality - NHS Health Check, Better Health programme, screening	Skills - Campaign analysis table: national health education campaign in depth - Historic vs current campaign comparison - Research: roles of OHID and DHSC - Independent reading: Health Disparities and Health Inequalities – Applying All Our Health - NHS health app engagement and evaluation (Better Health / Food Scanner)	Internal Assessment – PASB - Unit 5 PASB: Pearson-Set Assignment Brief 17 hours total supervised completion - Centre marked and Pearson verified Formative Assessment - End of Learning Aim A knowledge test (A1 & A2) - Campaign research task formative feedback
Autumn 2 Unit 2 Human Biology & Health	Content Area A continued & Body Systems - A4: Homeostatic mechanisms – blood glucose regulation (insulin, glucagon; glycogenesis, glycogenolysis); thermoregulation (sweating, shivering, vasodilation, vasoconstriction); osmoregulation (ADH, kidneys); negative feedback loops ★ ★ C4: Type 1 diabetes – autoimmune β-cell destruction; no insulin; hyperglycaemia; DKA; multi-system effects (renal, cardiovascular, nervous, ocular) ★ ★ C4: Type 2 diabetes – insulin resistance; lifestyle and genetic factors; multi-system complications - B1: Cardiovascular system – heart structure and cardiac cycle; systemic	Key Terms - Homeostasis, negative feedback, set point, receptor, effector - Insulin, glucagon, α-cells, β-cells, Islets of Langerhans, glycogenesis, glycogenolysis - Vasodilation, vasoconstriction, ADH, osmoregulation, nephron - Hyperglycaemia, glycosuria, DKA, polyuria, polydipsia, nephropathy, neuropathy, retinopathy - Cardiac cycle, atrium, ventricle, systole, diastole, SAN, ECG, blood pressure	Skills - Blank diagram: blood glucose negative feedback loop - Diagram labelling: skin cross-section (thermoregulation) - Card sort: osmoregulation – ADH pathway - Practical: effect of exercise on heart rate - Heart dissection or video-based alternative - Case study: Type 1 vs Type 2 diabetes – causes and multi-system effects - Comparison table: ischaemic vs haemorrhagic	Trial Exam - Full mock paper under timed conditions - Content Area A questions (short and extended) - Peer-marked using official mark schemes Knowledge Quiz - Homeostasis and cardiovascular system - Diabetes and cardiovascular disorders: causes and multi-system effects

	and pulmonary circulation; blood vessels (arteries, veins, capillaries); blood components (plasma, RBCs, WBCs, platelets) ★ ★ C1: Coronary heart disease – atherosclerosis; angina; myocardial infarction; primary and secondary effects on respiratory, nervous, musculoskeletal systems ★ ★ C1: Hypertension – causes; damage to artery walls; multi-system effects; link to renal disease ★ ★ C1: Stroke (ischaemic and haemorrhagic) – causes; primary effects; secondary effects on musculoskeletal, respiratory, renal systems	Atherosclerosis, angina, myocardial infarction, hypertension, ischaemic stroke, haemorrhagic stroke	stroke – primary and secondary effects Exam-style: SAM Q2e – liver and pancreas in blood glucose regulation [4 marks]	
	Learning Aim A continued – Organisations, Legislation & Monitoring - A3: Organisations influencing health education – global (WHO), national (NHS England, UKHSA, DHSC, ICS), local authorities and public health teams - A4: Legislation and regulations – Health and Care Act 2012; Care Act 2014; Equality Act 2010; WHO Sustainable Development Goals - A5: Monitoring the health of the nation – WHO priorities; ONS; OHID statistics; Health Survey for England; local health profiles	Key Terms - WHO, UKHSA, NHS England, ICS; local authority, public health team - Sustainable Development Goals (SDGs); Health and Care Act 2012 - Care Act 2014; Equality Act 2010; protected characteristics - ONS, OHID statistics, Health Survey for England, epidemiology, AMR	Skills - Group presentations: roles of key organisations in health education - Legislation table: aim, who it protects, specific sections, influence on practice - Paired data analysis: OHID statistics and national trends - Local health report writing for own area - WHO priority research: AMR and other key issues - Site visit: local health centre / children's centre / public health museum	PASB Preparation – Task 1 - Revision: Learning Aim A full content - End of Learning Aim A knowledge test (A3–A5) - Formative practice for Task 1 of PASB
Spring 1 Unit 2 Human Biology & Health	Content Area B continued – Body Systems B2: Respiratory system – anatomy (larynx, trachea, bronchi, bronchioles, alveoli); ventilation (diaphragm, intercostal muscles, pressure	Key Terms Inspiration, expiration, tidal volume, diaphragm, intercostal muscles	Skills - Labelling: respiratory system, nervous system, brain regions - Card sort: steps of the reflex arc; inspiration vs expiration	Trial Exam - Full mock paper under timed conditions - Individual feedback and target setting

changes); gaseous exchange at alveolar surface

- ★ ★ **C2: Asthma – bronchospasm; inflammation; primary effects; cardiovascular (raised HR, cyanosis) and CNS (confusion, hypoxia) secondary effects**
- ★ ★ **C2: COPD (emphysema + chronic bronchitis) – alveolar destruction; excess mucus; cor pulmonale; multi-system secondary effects**
- ★ ★ **C2: Lung cancer – genetics and lifestyle causes; blocked airways; haemoptysis; metastases to liver, bones, brain**
- B3: Nervous system – brain (cerebrum, cerebellum, medulla, hypothalamus, pituitary) and spinal cord; PNS: sensory, motor, mixed neurones; reflex arc; ANS: sympathetic vs parasympathetic
- ★ ★ **C3: Dementia (Alzheimer's disease and vascular dementia) – causes; progressive neurodegeneration; primary effects; secondary effects on respiratory, digestive, musculoskeletal systems**
- ★ ★ **C3: Acquired brain injury (traumatic and non-traumatic) – primary and secondary effects; impact across body systems**
- B4: Endocrine system – major glands, hormones and functions; roles in growth, blood sugar, stress response, osmoregulation
- Renal system – kidney structure; nephron; filtration, selective reabsorption and osmoregulation

- Alveolus, gaseous exchange, diffusion gradient, vital capacity
- Bronchospasm, emphysema, chronic bronchitis, COPD, FEV1, cor pulmonale, cyanosis, haemoptysis
- CNS, PNS, autonomic nervous system; cerebrum, cerebellum, medulla, hypothalamus, pituitary
- Sensory, motor, relay neurone; synapse, reflex arc, sympathetic, parasympathetic, adrenaline
- Dementia, amyloid plaque, tau tangle, cognitive decline, dysphagia, dysphasia, hemiplegia
- TBI, primary/secondary brain injury; endocrine gland, hormone, target organ; nephron, glomerulus

- Academic poster: ANS – sympathetic or parasympathetic division
- Practical: reaction time investigation
- Endocrine gland summary table: structure, location, hormone, function
- Case study: asthma – cardiovascular and CNS effects (SAM Charlie scenario)
- Comparison table: Alzheimer's vs vascular dementia
- 9-mark practice: SAM Q1g (asthma) and Q3g (TBI) under timed conditions
- Past paper practice: ExamWizard targeted question bank

Exam-Style Practice

- SAM Q1g: asthma → cardiovascular and CNS [9 marks]
- SAM Q3g: TBI → CNS and other body systems [9 marks]
- Peer marking using official SAM mark schemes

	Learning Aim B – Health Issues, Priorities & Factors • B1: Health issues and priorities – mental health, obesity, smoking, sexual health, substance misuse, physical inactivity, oral health, air quality and environmental health • Impact of health issues on individuals, holistic health and wider society; Better Health campaign priorities and evidence • B2: Factors affecting health and wellbeing – biological, social, economic, environmental, cultural, lifestyle and psychological factors • Links between health behaviours and health outcomes: childhood obesity and Type 2 diabetes	Key Terms • Mental health, obesity, smoking cessation, sexual health, substance misuse • Physical inactivity, sedentary behaviour, oral health, air quality, holistic health • Biological, social, economic, environmental, cultural, lifestyle, psychological factors • Health behaviour, risk factor, protective factor, causal link, correlation	Skills • Fact sheet: chosen health issue with statistics and impact on individuals and society • Classroom wall display: Better Health campaign • Documentary analysis: health issue documentaries (Panorama, Dispatches) • Paired task: linking health behaviours to health outcomes • Guest speaker preparation: interview questions for a health professional	PASB Preparation – Task 1 • Revision: Learning Aim B full content • End of Learning Aim B knowledge test • Practice for Task 1 of PASB (B1 and B2 sections) • Formative written task feedback
Spring 2 Unit 2 Human Biology & Health	Content Area B concluded & Disorders • B5: Musculoskeletal system – skeleton; ligaments, tendons, cartilage, bone (compact and spongy; Haversian system); fibrous, cartilaginous and synovial joints; antagonistic muscle pairs ★ ★ C5: Osteoporosis – reduced bone density; fracture risk; causes; secondary effects on respiratory, cardiovascular, nervous systems ★ ★ C5: Rheumatoid arthritis – autoimmune synovitis; joint erosion; systemic effects on cardiovascular, respiratory and renal systems ★ ★ C5: Osteoarthritis – degenerative cartilage wear; comparison with RA • B6: Immune system – WBCs, antibodies, antigens; phagocytosis; innate vs adaptive immunity	Key Terms • Ligament, tendon, cartilage; fibrous, cartilaginous, synovial joint • Osteocyte, Haversian system, compact/spongy bone • Agonist, antagonist, synergist muscle; antagonistic muscle pairs • Osteoporosis, bone mineral density; synovitis, rheumatoid factor, DMARD, osteophyte • Antigen, antibody, leucocyte, lymphocyte, phagocytosis; lymph node, spleen, thymus, MALT • Benign, malignant tumour, metastasis, carcinogen; cancer staging	Skills • Labelling: skeleton and joint diagrams • Practical: antagonistic muscle pairs exercises • Comparison table: RA vs OA – cause, distribution, systemic effects • Comic strip: immune response to infection • Lymphatic system labelling and function table • Cancer case study analysis: primary and secondary effects • Group presentations: breast, bowel and lung cancer – causes and multi-system effects • 9-mark practice: SAM Q2h – bowel cancer effects on	Post-Trial Exam • Exam results review and feedback Formative Assessment • Topic tests: musculoskeletal, immune, disorders • Diagram label assessments • 9-mark practice peer-marked with mark scheme

	• B6: Lymphatic system – lymph nodes, spleen, thymus, bone marrow, lymph vessels, MALT; functions • B6: Reproductive and digestive systems – key structures and functions ★ ★ C1: Cancer (breast, bowel and lung) – genetics and lifestyle causes; primary effects; secondary effects (metastasis); multi-system impact ★ ★ C3: Multiple sclerosis – demyelination; multi-system effects (musculoskeletal, bladder, respiratory) ★ ★ C3: Parkinson's disease – dopamine deficit; tremor, rigidity, bradykinesia; multi-system effects	• Demyelination, myelin sheath; dopamine, substantia nigra, bradykinesia	other body systems [9 marks] • Post-trial exam review: examiner report and target setting	
	Learning Aim C – Approaches to Health Education • C1: Current and ongoing health education campaigns – global (WHO), national (DHSC, NHS, BHF, Mind, Mencap) and local levels; similarities and differences; local campaign poster production • C2: Models of behaviour change: • Health Belief Model (perceived susceptibility, severity, benefits, barriers, self-efficacy) • Transtheoretical Model / Stages of Change (pre-contemplation → maintenance) • Social Cognitive Theory (observational learning, self-efficacy, modelling) • Theory of Reasoned Action (attitude, subjective norm, behavioural intention) • Applying all four models to a chosen unhealthy behaviour; writing case studies	Key Terms • Global, national, local health education campaign; campaign partnership • Health Belief Model: perceived susceptibility, severity, benefits, barriers, self-efficacy • Transtheoretical Model: pre-contemplation, contemplation, preparation, action, maintenance, relapse • Social Cognitive Theory: observational learning, modelling, self-efficacy • Theory of Reasoned Action: attitude, subjective norm, behavioural intention	Skills • Local campaign poster design • Behaviour change booklet: applying all four models to a chosen unhealthy behaviour • Case study writing: individual overcoming unhealthy behaviour using a specific model • Mind-map: measuring the effectiveness of health education campaigns • Group discussion: data collection methods (questionnaires, focus groups, observation, interviews)	PASB Preparation – Task 2 • Revision: Learning Aim C content (C1 and C2) • End of Learning Aim C knowledge test • Practice for Task 2 of PASB • Draft PASB responses with teacher feedback

**Summer 1
Unit 2
Human
Biology &
Health**

Content Area C concluded – Consolidation & Exam Preparation

- All Learning Aim C disorders have been taught alongside the relevant body systems throughout the year. This term focuses on consolidation, connections and exam technique
- Systematic revision of all Learning Aims A, B and C – students self-assess each topic using a traffic-light system
- 9-mark extended answer technique – planning grids; cross-system connections; applying to named scenarios (application marks carry double weighting)
- Full paper practice – SAM and Feb 2026 trial paper under timed conditions (1h30m); peer and teacher marking using official mark schemes
- Small-group targeted intervention based on mock exam feedback
- Full Unit 2 knowledge organiser: completion and self-testing

Key Terms – Revision

- All key terms from A1–A4 and B1–B6 and all integrated C disorders (see previous terms)

Command Words

- State / Identify: give a fact with no explanation needed
- Describe: give a detailed step-by-step account
- Explain: give the reason WHY – always linked (1+1 marking)
- Discuss: consider different aspects; how they interrelate; apply to the named scenario; cover both sides

Skills

- Timed past paper practice: SAM + Feb 2026 trial paper
- Peer and self-assessment using official mark schemes
- 9-mark planning grids: primary system → 4+ other body systems → connections
- Targeted revision of weak areas identified from mock exam feedback
- Knowledge organiser completion and self-testing
- Exam time management: 26 minutes per section

EXTERNAL EXAMINATION

Unit 2 Exam

- 80 marks | 1 hour 30 minutes
- Section A: 26 marks
- Section B: 29 marks
- Section C: 25 marks

Exam date: May

Learning Aim C concluded – Planning a Health Education Event

- C3: Key features of planning a health education event: target audience, SMART aims and objectives, ethical considerations, delivery methods, resources, evaluation strategy
- Ethical considerations: rights of individuals, confidentiality, cultural sensitivity, avoiding harmful stereotypes, data handling
- Role of health education in challenging prejudice, stereotypes and discrimination

Key Terms

- SMART: Specific, Measurable, Achievable, Relevant, Time-bound
- Ethics, informed consent, cultural sensitivity, data confidentiality
- Prejudice, stereotype, discrimination, cultural competence
- Holistic approach, person-centred, joint working, empowerment
- Evaluation: questionnaire, focus group, observation, interview

Skills

- SMART target writing: health education event scenarios (paired)
- The Ethics Challenge: group scenario analysis
- Event planning documentation
- Self-management and metacognition: managing own learning under PASB conditions
- Independent extended writing under PASB conditions

Unit 5 PASB

- 17 hours supervised completion time
- Centre marked and Pearson verified

End of Learning Aim C

- Full Unit 5 knowledge check

	• Holistic, person-centred and joint health and social care approaches to delivery • Measuring effectiveness: early intervention, lifelong health outcomes, holistic PIES impact, reduction in specialist service use PASB COMPLETION	• Early intervention, behaviour change, lifelong health outcome		
Summer 2	Post-Assessment Activities and Progression Planning • Receipt of Unit 2 and Unit 5 PASB results and verification outcomes • Re-sit preparations for January (if applicable) • Student-led reflection on learning across both years of the BTEC qualification • UCAS applications, personal statement support and higher education guidance for health, social care and science pathways • Careers information: NHS, social care, public health, allied health professions, nursing and midwifery routes • Enrichment activities: guest speaker from higher education or health and social care industry; site visits • Preparation for degree apprenticeships, nursing degree programmes, or Level 4/5 higher technical qualifications	Focus Areas • Personal statement writing and UCAS process • Healthcare career pathways and entry requirements • Independent study and extended reading in health and social care	Skills • Research and academic writing for personal statements • Presentation and communication skills • Independent study and self-management • Reflection and metacognition	Progression Planning • UCAS support and personal statement review • Enrichment project or extended reading task