



# AAQ Medical Science Curriculum Map

## FURTHER STUDY

- University – Biomedical Sciences, Nursing, Pharmacology, Public Health
- Apprenticeships – Healthcare Science, Laboratory Technician, Clinical Support

## CAREER PATHS

- Medicine, Nursing, Paramedicine, Biomedical Research
- Clinical Laboratory Technician, Public Health Analyst

## SKILLS

- Medicine, Nursing, Paramedicine, Biomedical Research
- Clinical Laboratory Technician, Public Health Analyst

## INTEREST

A continued passion and love of learning about science

**UNIT 5- Biomedical Science –**  
Health screening, Haematology, medical diagnosis and urinalysis.

### Links to GCSE:

Biology & Chemistry: biomolecules, diagnostics

### Links to the outside world:

Health issues, pathology, diagnostics, or laboratory science.

### UNIT 4 – Diseases, Disorders, Treatments and Therapies

Biological molecules and pathways, and their relevance to diseases, disorders, treatments and therapies.

### Links to GCSE:

Biology: non-communicable diseases, treatments

### Links to the outside world:

Health issues, nursing, physiotherapy, and clinical healthcare

**UNIT 6 – Human Reproduction and Fertility**  
Anatomy and physiology of the human reproductive system, hormones, and causes, treatments and impact of infertility.

### Links to GCSE:

Biology: reproduction, hormones

### Links to the outside world:

Health issues, reproductive health midwifery, or medical research.

## Option – Unit 4, 5 or 6 Internal coursework



## UNIT 3 – Practical Microbiology and Infectious Diseases

**Assessment type:** Internal coursework

### Links to GCSE:

Biology: microorganisms, microscopy, pathogens, infection, lab skills

### Links to the outside world:

laboratory work or careers in microbiology, research and healthcare

**UNIT 3 - A Understand the classification and nature of microorganisms**

- Characteristics of different microorganisms
- Methods of pathogenicity
- Classification strategies

**UNIT 3 - B: Examine the transmission and treatments of infectious diseases**

- Classification overview of infectious diseases
- Transmission of infectious agents
- Infectious diseases, signs, symptoms and progression
- Prevention and treatment of infectious diseases

**UNIT 3 - C: Explore the application of techniques to culture and identify microorganisms**

- Health and safety
- Microscopy and staining techniques
- Culture of microorganisms
- Quantitative analysis of microbes

**UNIT 3 - D: Investigate the effect of antimicrobial agents on the growth of microorganisms**

- Investigating the substances that inhibit the growth of microorganisms
- Interpretation, analysis and evaluation

**Assessment type:** external examination

This unit explores:

- Diagnostic techniques
- Immune response and dysfunction
- Genetics and Health
- Cancer
- Interpretation, analysis and evaluation of scientific information

### Links to GCSE:

Combined Science: health, data analysis, scientific method

### Links to the outside world:

Public health, research, and science communication roles.

## UNIT 2 – Health Issues and Scientific Reporting



World Health Organization

### MEDICAL REPORT



## UNIT 1 - Human Health and Disease

**Assessment type:** external examination

### Links to GCSE:

Biology: cells, organ systems, disease



This unit explores

- Biological molecules, cells and levels of organisation
- The Nervous and endocrine systems
- The musculoskeletal system
- The cardiovascular and respiratory systems
- The renal and digestive systems

**Links to the outside world:**  
It builds on GCSE Biology knowledge and prepares learners for careers in healthcare and biomedical science.



## A01

Demonstrate knowledge of scientific facts, terms, definitions and scientific formulae

## A02

Demonstrate understanding of scientific concepts, procedures, processes and techniques and their application

## A03

Analyse, interpret and evaluate scientific information to make judgements and reach conclusions

## A04

Make connections, use and integrate different scientific concepts, procedures, processes or techniques