

**EDEXCEL CERTIFICATE**  
**IGCSE in Chemistry (9-1) Specification**

**Specification Summary**

**1. Principles of chemistry**

- (a) States of matter
- (b) Elements, compounds and mixtures
- (c) Atomic structure
- (d) The Periodic Table
- (e) Chemical formulae, equations and calculations
- (f) Ionic bonding
- (g) Covalent bonding
- (h) Metallic bonding
- (i) Electrolysis

**2 Inorganic chemistry**

- (a) Group 1 (alkali metals) – lithium, sodium and potassium
- (b) Group 7 (halogens) – chlorine, bromine and iodine
- (c) Gases in the atmosphere
- (d) Reactivity series
- (e) Extraction and uses of metals
- (f) Acids, alkalis and titrations
- (g) Acids, bases and salt preparations
- (h) Chemical tests

**3 Physical chemistry**

- (a) Energetics**
- (b) Rates of reaction**
- (c) Reversible reactions and equilibria**

## **4 Organic chemistry**

- (a) Introduction**
- (b) Crude oil**
- (c) Alkanes**
- (d) Alkenes**
- (e) Alcohols**
- (f) Carboxylic acids**
- (g) Esters**
- (h) Synthetic polymers**

**EDEXCEL CERTIFICATE**  
**IGCSE in Physics (9-1) Specification**

**Specification Summary**

**1 Forces and motion**

- (a) Units
- (b) Movement and position
- (c) Forces, movement, shape and momentum

**2 Electricity**

- (a) Units
- (b) Mains electricity
- (c) Energy and voltage in circuits
- (d) Electric charge

**3 Waves**

- (a) Units
- (b) Properties of waves
- (c) The electromagnetic spectrum
- (d) Light and sound

**4 Energy resources and energy transfers**

- (a) Units
- (b) Energy transfers
- (c) Work and power
- (d) Energy resources and electricity generation

## **5 Solids, liquids and gases**

- (a) Units
- (b) Density and pressure
- (c) Change of state
- (d) Ideal gas molecules

## **6 Magnetism and electromagnetism**

- (a) Units (b) Magnetism
- (c) Electromagnetism
- (d) Electromagnetic induction

## **7 Radioactivity and particles**

- (a) Units
- (b) Radioactivity
- (c) Fission and fusion

## **8 Astrophysics**

- (a) Units
- (b) Motion in the universe
- (c) Stellar evolution
- (d) Cosmology

# **EDEXCEL CERTIFICATE**

## **IGCSE in Biology (9-1) Specification**

### **Specification Summary**

#### **1 The nature and variety of living organisms**

- (a) Characteristics of living organisms**
- (b) Variety of living organisms**

#### **2 Structure and functions in living organisms**

- (a) Level of organisation**
- (b) Cell structure**
- (c) Biological molecules**
- (d) Movement of substances into and out of cells**
- (e) Nutrition**
- (f) Respiration**
- (g) Gas exchange**
- (h) Transport**
- (i) Excretion**
- (j) Co-ordination and response**

#### **3 Reproduction and inheritance**

- (a) Reproduction**
- (b) Inheritance**

#### **4 Ecology and the environment**

- (a) The organism in the environment**
- (b) Feeding relationships**
- (c) Cycles within ecosystems**
- (d) Human influences on the environment**

#### **5 Use of biological resources**

- (a) Food production**
- (b) Selective breeding**
- (c) Genetic modification  
(Genetic engineering)**
- (d) Cloning**