



# OCR Gateway – Video list

## Double Award

Double Award includes all of the [Entry Level](#) videos and, in addition, the topics below...

ENTRY LEVEL →

### Biology



#### 1. Cell level systems

Orders of Magnitude and Standard Form  
Microscopes and Magnification  
Microscope Drawing and Maths Skills  
DNA  
PAG Enzymes and Calculating the Rate of Reaction  
PAG Breakdown and Testing of Biological Molecules  
PAG Investigating the rate of photosynthesis  
Limiting Factors in Photosynthesis

#### 2. Scaling up

Exchange Surfaces and Diffusion  
Osmosis including PAG  
Active Transport  
Mitosis  
Stem Cells  
Plant Tissues  
Transpiration

#### 3. Organism level systems

The Endocrine System  
Adrenaline and Thyroxine  
Controlling Blood Glucose

#### 4. Community level systems

Interdependence  
Nutrient Cycling  
Practical Activity Group (PAG) Sampling

#### 5. Genes, inheritance and selection

Variation and Mutations  
Fractions, Ratios, Proportion and Probability  
Evidence of Evolution and Extinction  
Classification

#### 6. Global challenges

Biodiversity  
Sampling Techniques  
Selective Breeding  
Genetic Engineering  
Culturing Microorganisms  
Communicable Diseases in Humans and Plants  
Health, Disease and Risk Factors  
Cardiovascular Disease (CVD)  
Modern Advancements in Medicine

### Chemistry



#### 1. Particles

Atomic Structure and Isotopes  
Developing the atomic model

#### 2. Elements, compounds and mixtures

Relative formula mass and empirical formula  
Purity and formulations  
Electronic Structure  
Covalent bonding and simple molecules  
Polymer molecules  
Metallic bonding

#### 3. Chemical reactions

The mole  
Mole calculations  
Reaction profiles  
Calculating Energy Changes  
Redox reactions and half equations  
The pH scale and neutralisation  
Hydrogen ions and pH  
Electrolysis of molten salts  
Electrolysis of aqueous salts  
Applications of electrolysis

#### 4. Predicting and identifying reactions

Group 1 - The Alkali Metals  
Group 7 - Halogens  
Reactivity of elements

#### 5. Monitoring and controlling reactions

Concentration of a solution  
Measuring rates of reaction  
Measuring rates of reaction (PAG)  
Interpreting rate graphs  
Collision theory and activation energy (including catalysts)  
Reversible reactions and equilibrium  
Equilibrium position

#### 6. Global challenges

Extracting Iron (The Blast furnace)  
Extracting Aluminium  
Biological metal extraction  
Alkanes from Crude Oil  
Cracking oil fractions  
Pollution and the atmosphere  
Climate Change

### Physics



#### 1. Matter

The atom  
The development of the model of the atom  
Specific heat capacity and specific latent heat  
Pressure in gases

#### 2. Forces

Scalars and vectors  
Distance-time graphs  
Acceleration  
Velocity-time graphs  
Resultant forces  
Newton's laws of motion  
Falling objects  
Momentum 1  
Power  
Forces and elasticity  
Gravity

#### 3. Electricity

Static electricity  
Resistors  
Series and parallel circuits  
Investigating resistance in circuits  
Power and energy transfers

#### 4. Magnetism and magnetic fields

[None]

#### 5. Waves in matter

[No additional videos]

#### 6. Radioactivity

Atoms and isotopes  
Half-life  
Radioactive contamination

#### 7. Energy

Power and efficiency

#### 8. Global challenges

The National Grid