LACON CHILDE SCHOOL

PART OF FOUR STONES GATEWAY

Biology Department Curriculum

Further study: Sixth Form/ Apprenticeship

Year 11

- Exam technique
- Revision
- Ecosystems
- Habitats and Sampling
- Gas Exchange in Plants
- Exchange and Transport
- Gas Exchange in Animals
- Nervous System and Hormones
- Animal Coordination
- Rate of photosynthesis
- Photosynthesis
- Transpiration and Translocation
- Health and Disease
- Non- Communicable Disease
- Communicable Disease
- Natural Selection
- Darwins Theory
- Evidence for Evolution
- Breeds and Varieties

Year 10

- Immune system
- Infection & Response
- Bioenergetics (Photosynthesis)
- Drug discovery
- Non-communicable diseases
- Structure of the heart & blood vessels
- Heart disease
- Organisation (Heart , circulation & plants)
- Infection & Response
- Transport in plants
- Prokaryotic & Eukaryotic cells
- Microscopes & magnification
- Cell Biology
- Organisation (Digestive system)
- Cell transport
- Enzymes & food tests
- Mitosis

Year 9

- Balanced diet
- Digestive System
- Nutrients
- Health and Lifestyle
- Smoking
- Leaf Structure
- Factors affecting
- Photosynthesis and respiration
- Aerobic and Anaerobic
- DNA and Genes
- Evolution, Variation and Inheritance
- Competition and adaptation
- Natural Selection

Year 8

- Reproductive organs & hormones
- Pregnancy & birth
- Variation & Human reproduction
- Processing results
- Collecting data
- Pollination & Germination
- Plant adaptations
- Interdependence & Plant reproduction
- Food webs & pyramids
- Habitats & ecosystems
- Cell structure
- Observing cells
- Movement & Cells
- Skeletal system

Year 7

LACON CHILDE SCHOOL

PART OF FOUR STONES GATEWAY

Chemistry Department Curriculum

Further study: Sixth Form/ Apprenticeship

Year 11

- Exam technique
- Revision
- Crude Oil and Fractional Distillation
- Organic Chemistry (Triple Only)
- Quantitative Chemistry (Triple Only)
- Fuels and Earth's atmosphere
- Groups 1,7 and 0
- Patterns of Reactivity
- Testing ions and Nanotech (Triple Only)
- Endothermic & Exothermic reactions
- Calculating rates Of reaction
- Factors affecting rates Of reaction
- Reactions of acids & metals
- Covalent bonding & Carbon compounds
- Structure & Bonding Energy changes
- Rate & extent of chemical change
- Chemical Changes

Year 10

- Ionic bonding
- Reaction profiles
- Extracting metals
- Collision theory
- Neutralisation of acids & making salts
- Electrolysis
- Potable water
- Evolution of the Earth's atmosphere
- Climate change
- Ions, atoms & isotopes
- Development of the periodic table
- Chemical equations
- Waste water treatment
- Formulations
- Using Resources and Chemical Analysis
- Earth's Atmosphere and Resources
- Periodic Table
- Atomic Structure
- Tests for common gases & identifying ions
- Finite & renewable resources
- Natural versus synthetic products
- History of the atom
- Separation techniques

Year 9

- Metals and Non-metals
- Equations and Symbol Equations
- Acids and Alkalis
- Reactivity of Metals
- Groups and Periods
- Periodic Table Elements and Compounds
- Chemical Energy and Types of Reaction
- Climate Change and Earths Resources
- Properties of metals & non-metals
- Conservation of Mass
- Rock Cycle
- Carbon Cycle

Year 8

- Solar system
- Neutralisation
- Safety in a lab & working scientifically
- Structure of Earth
- pH Scale
- Filtration, evaporation & distillation
- Rock Cycle
- Earth's Structure
- Acids and Alkalis
- Metals and Non metals
- Particle model and separating mixtures
- Seasons, sun & moon
- Uses of metals
- Properties of metals & non-metals
- Chromatography
- States of matter

Year 7

LACON CHILDE SCHOOL

PART OF FOUR STONES GATEWAY

Physics Department Curriculum

Further study: Sixth Form/ Apprenticeship

Year 11

- Exam technique
- Springs and Pressure in Fluids
- Microphones and Speakers
- Electromagnetic Induction
- Revision
- Particle Model and Forces
- Electromagnetic Inductors
- Specific Heat Capacity
- National Grid
- Nuclear fission & fusion
- Astronomy (Triple Only)
- Work Done and Power
- Light (Triple Only)
- Waves
- Electomagnetic Spectrum
- Radiation and Radioactivity
- Energy and Forces Electricity
- Re
- Mains
- Nuclear radiation
- Radiation hazards
- Atomic structure, Charge And Current
- Electromagnetic waves

Year 10

- Particle model
- Current, potential difference & resistance
- Static electricity & energy transfers
- Energy changes in a system
- Conservation & dissipation of energy
- Particle Model of Matter
- Electricity
- Energy
- Changes of state
- Pressure
- Internal energy & energy transfers
- Series & parallel circuits
- Domestic uses & safety
- National & global Energy resources

Year 9

- Series and Parallel Circuits
- Magnets
- Pressure in Solids, Liquids and Gases
- Solar System
- The Universe
- Electricity and Circuits
- Magnetism and Electromagnets
- Contact Forces and Pressure
- Uses of Electromagnets
- Floating and Sinking, Turning Forces

Year 8

- The Ear
- Energy transfer processes
- Forces in action
- Reflection
- Describing motion
- Waves, sound & light
- Energy stores, energy transfers & resources Electricity & Circuits
- Forces, speed & gravity
- Pitch & frequency
- How light travels
- Energy in fuels & food
- Contact & non-contact forces
- Mass & weight

Year 7