



# LACON CHILDE SCHOOL

PART OF FOUR STONES GATEWAY

## Science Department Biology Curriculum

Further study:  
Sixth Form/  
Apprenticeship

GCSE Exam

Ecosystems

Exchange & Transport

Animal Coordination

Diabetes 2

Blood Glucose

Year  
11

Natural Selection

Health & Disease

Photosynthesis & Plant Adaptations

Year  
10

GM & Agriculture

Tissue Culture

Plant diseases & defences

Virus Life Cycle

Pathogens

Transpiration & Translocation

Plant adaptations

Plant hormones

Immune Systems

Structure of the heart & blood vessels

Heart disease

Prokaryotic & Eukaryotic cells

Microscopes & magnification

Mitosis

B3: Infection & response  
B4: Bioenergetics (Photosynthesis)

B2: Organisation (Heart & Circulation)  
B3: Infection & response

B1: Cell Biology  
B2: Organisation (digestive system)

Rate of photosynthesis

Drug discovery

Non-communicable diseases

Communicable diseases

Transport in plants

Cell transport

Enzymes & food tests

Year  
9

Health & Lifestyle

Respiration & Photosynthesis

Evolution, Variation & Inheritance

Natural Selection

Year  
8

Diet & Health

Understanding Nutrition labels

Aerobic/Anaerobic respiration

Food chains

Measuring Ecosystems

Competition & Adaptations

DNA & Inheritance

Pollination & Germination

Pregnancy & Birth

Reproductive organs & hormones

Observing Cells

Cell structure

Interdependence & plant Reproduction

Variation & Human Reproduction

Movement & Cells

Year  
7

Plant adaptations

Food webs & pyramids

Habitats & Ecosystems

Processing results

Collecting Data

Skeletal system

Exam Technique

Practical Review

Abiotic/Biotic Factors

Pollution

Cycles

The Heart

Energy Transfer

Circulatory system

Thermoregulation

Hormones & Menstrual cycle

Revision

Biodiversity

Cellular Respiration

Diffusion

Osmoregulation & the kidney's

Menstrual Cycle

Hormones

Classification

Breeds & Varieties

Human Evolution

Non-Communicable disease

Cardiovascular disease

Photosynthesis

Diffusion & Osmosis

Darwin's Theory

Fertilisers

GM & Agriculture

Tissue Culture

Plant diseases & defences

Virus Life Cycle

Pathogens

Transpiration & Translocation

Plant adaptations

Plant hormones



# LACON CHILDE SCHOOL

PART OF FOUR STONES GATEWAY

## Science Department Chemistry Curriculum

Further study:  
Sixth Form/  
Apprenticeship

Exam  
Technique

Practical  
Review

Atmosphere

Air Pollution

Combustion

Periodic  
Table

Reaction/  
Unreaction

Halogens

Alkali Metals

GCSE Exam

Fuels & the Earth's  
Atmosphere

Patterns of Reactivity

Revision

Climate  
Change

Cracking

Alkanes &  
Alkenes

Crude Oil

Exothermic /  
Endothermic  
reactions

Catalysts

Year  
11

Covalent Bonding &  
Carbon compounds

Endothermic &  
Exothermic reactions

Calculating rates  
of reaction

Factors affecting rates  
of reaction

Reactions of  
acids & metals

C2. Structure & Bonding

C5. Energy changes  
C6. Rates & Equilibrium

C4. Chemical Changes

Ionic  
bonding

Reaction  
profiles

Extracting  
metals

Collision theory

Neutralisation of acids  
& making salts

Electrolysis

Year  
10

Potable water

Evolution of the Earth's  
atmosphere

Climate  
change

Ions, atoms  
& isotopes

Development of  
the periodic table

Chemical  
equations

C10. Using our resources –  
not Haber process  
C8. Chemical analysis

C9. The Earth's atmosphere  
C10. The Earth's resources

C1. Atomic structure  
C1. Periodic table

Waste water  
treatment

Formulations

Tests for common gases  
& identifying ions

Finite & renewable  
resources

Natural versus  
synthetic products

History of  
the atom

Separation  
techniques

Year  
9

Neutralisation

Salts

Copper  
sulphate

Conservation  
Of Mass

Burning  
Fuels

Reactivity &  
Displacement

Metals

Gas Tests

Periodic table & elements  
and compounds

Chemical energy &  
types of reaction

Climate &  
earth resources

Indicators

Concentration

Equations

State  
Symbols

Extracting  
Metals

Structure of  
The Earth

Atmosphere

Climate  
Change

Year  
8

Solar system

pH Scale

Neutralisation

Filtration, evaporation  
& distillation

Safety in a lab &  
working scientifically

Earth structure

Metals & non-metals  
and acids & alkalis

Particle model &  
Separating mixtures

Rock Cycle

Seasons, sun  
& moon

Structure of  
Earth

Uses of metals

Properties of metals  
& non-metals

Chromatography

States of  
matter

Year  
7



# LACON CHILDE SCHOOL

PART OF FOUR STONES GATEWAY

## Science Department Physics Curriculum

Further study:  
Sixth Form/  
Apprenticeship

Exam  
Technique

Practical  
Review

Energy  
transfers

Water

Particles &  
density

Magnets

Electrical  
wiring

Power

Atoms

GCSE Exam

Particle model & forces

Electromagnetic:  
Induction / motors

Revision

Bending &  
stretching

Gas

Energy &  
change  
In state

Electrical  
circuits

Electric  
current

Year  
11

Light

Electromagnetic  
Spectrum

Atoms

Astronomy

Radioactivity

Work &  
Power

Electricity

Waves

Electromagnetic  
Spectrum

Radiation & Radioactivity

Energy & Forces

Refraction

Refraction

Electrons &  
Orbits

Radiation

Gravity, Magnetic  
& Static

Vector Diagrams

Year  
10

Particle model

Current, potential  
difference  
& resistance

Static electricity  
& energy transfers

Energy changes  
in a system

Conservation &  
dissipation of  
energy

P3 Particle model  
Of Matter

P2 Electricity

P1. Energy

Changes of state

Pressure

Internal energy &  
energy transfer

Series & parallel  
circuits

Domestic uses  
safety

Energy  
calculations

National & global  
Energy resources

Year  
9

The Earth

The Moon

Circuits

Resistance

Pressure in  
gases

Pressure in  
liquids

The Universe

Electricity  
& circuits

Pressure &  
Motion

The Night  
Sky

The Solar  
System

Static  
Electricity

Magnets

Pressure in  
solids

Turning Forces

Year  
8

Reflection

Circuit symbols

Series &  
parallel circuits

Describing motion

Forces in action

Waves – sound  
& light

Energy stores, energy transfers &  
Resources Electricity & Circuit

Forces: Speed &  
Gravity

Pitch &  
frequency

How light  
travels

The Ear

Energy transfer  
processes

Energy in fuels  
& food

Contact &  
non-contact forces

Mass & weight

Year  
7