

AUTUMN TERM

INTRODUCTION TO BIOLOGY PT 2

Lesson Title	K/O	F/A
ENZYMES		
ENZYMES CORE PRACTICAL		X
DIFFUSION AND ACTIVE TRANSPORT		
OSMOSIS		
OSMOSIS CORE PRACTICAL		

REACTIVITY OF GROUP 1, 7 AND 0

Lesson Title	K/O	F/A
Ionic bonding recap		
Group 1		X
Group 7		
Displacement reactions		
Group 0		

FORCES AND MOTION

Lesson Title	K/O	F/A
VECTORS AND SCALARS		
SPEED, DISTANCE AND TIME / GRAPHS		
ACCELERATION AND CORE PRACTICAL		
VELOCITY TIME GRAPHS		X
RESULTANT FORCES		
NEWTONS FIRST AND SECOND LAW		
MASS AND WEIGHT		
NEWTONS THIRD LAW		
MOMENTUM/ STOPPING/ CRASH HAZARDS		

SPRING TERM

CHANGING CHARACTERISTICS

Lesson Title	K/O	F/A
CLASSIFICATION		
DARWINS THEORY		X
HUMAN EVOLUTION		
SELECTIVE BREEDING		
GENETIC ENGINEERING		

CALCULATIONS

Lesson Title	K/O	F/A
Balancing equations		
Relative formula mass		
Percentage composition		
Empirical formula		X
Concentration		
Moles		
Stoichiometry		
Calculating masses		
Conservation of mass		x

RADIOACTIVITY

Lesson Title	K/O	F/A
ATOMIC MODELS		
RUTHERFORD EXPERIMENT		
TYPES OF RADIATION	X	
BACKGROUND RADIATION		
HALF LIFE		
DANGERS OF RADIATION		X

CELLS AND CONTROL

Lesson Title	K/O	F/A
GROWTH AND DIFFERENTIATION		
STEM CELLS		
THE NERVOUS SYSTEM		
REACTION TIMES		X

Lesson Title	K/O	F/A
Acid and alkalis		
Looking at acids (H)		
Bases and salts		
Core practical making a soluble salt		X
Titration		
Core practical neutralisation		
Reactions of metals and metal carbonates		
Solubility		
Electrolysis		
Core practical: Electrolysis		
Products from electrolysis		
Reactivity		
Ores		
Oxidation and reduction		
Life cycle assessments		
Dynamic equilibrium		

CONSERVATION OF ENERGY

Lesson Title	K/O	F/A
ENERGY STORES AND TRANSFERS		
EFFICIENCY		X
GPE		
KINETIC		
KEEP WARM		
NON RENEWABLE POWER		
RENEWABLE		

Lesson Title	K/O	F/A
COMMUNICABLE DISEASE		
NON COMMUNICABLE DISEASE		
CARDIOVASCULAR DISEASE		X
THE IMMUNE SYSTEM/ RESPONSE		
VACCINES		
ANTIBIOTICS/ ANTIBIOTIC RESISTANCE		

AUTUMN TERM

SPRING TERM

SUMMER TERM

HORMONES

Lesson Title	K/O	F/A
HORMONES		
CONTROL OF BLOOD GLUCOSE		
DIABETES		X
THE MENSTRUAL CYCLE		
CONTRACEPTION/HORMONAL AND NON HORMONAL		
HORMONAL CONTROL OF METABOLIC RATE		

RATES OF REACTION

Lesson Title	K/O	F/A
Collision theory and measuring rates of reaction		
Core practical sodium thiosulphate		
Factors affecting rates of reaction		x
Core practical: Gas collection		
Catalysts		
Endo and Exothermic reactions		
Reaction profiles		
Calculating energy changes (H)		
Reversible reactions		
Forces doing work		

Lesson Title	K/O	F/A
Energy transfer systems		
Kinetic energy		
Gravitational potential energy		
Work done		
Power		
Vector diagrams		
Forces and elasticity		
INVESTIGATING SPRINGS		x
Extension and		

PHOTOSYNTHESIS

Lesson Title	K/O	F/A
PHOTO-SYNTHESIS		
FACTORS AFFECTING PHOTO-SYNTHESIS		
LIGHT INTENSITY		x
TRANSPORTING SUBSTANCES RECAP		
TRANSPIRATION AND TRANSLOCATION		

FUELS and

atmosphere

Lesson Title	K/O	F/A
Hydrocarbons		
Fractional distillation		X
Focus on alkanes		
Cracking		
Combustion		
Problems with burning fuels		
Alternative fuels		
The Early atmosphere		
How the atmosphere has changed		
The current atmosphere		
Climate change		

THE

MOTOR EFFECT

Lesson Title	K/O	F/A
MAGNETS		
MAGNETIC FORCES		
ELECTRO-MAGNETISM		x
FLEMINGS RIGHT HAND RULE		
TRANS-FORMERS		
TRANS-FORMERS AND ENERGY		

ECOSYSTEMS AND MATERIAL CYCLES

Lesson Title	K/O	F/A
ECOSYSTEMS		
ABIOTIC FACTORS		
QUADRATS		
BIOTIC FACTORS		
PARASITISM AND MUTUALISM		
BIODIVERSITY		
THE WATER CYCLE		
THE CARBON CYCLE		
THE NITROGEN CYCLE		X

EXCHANGE AND

TRANSPORT

Lesson Title
RESPIRATION
RESPIRATION CORE PRACTICAL
EFFICIENT TRANSPORT AND EXCHANGE
THE HEART
THE CIRCULATORY SYSTEM
CARDIOVASCULAR DISEASE
THE PARTICLE MODEL

Lesson Title
PARTICLES
DENSITY
DENSITY CORE PRACTICAL
CHANGES OF STATE
ENERGY AND ENERGY CALCULATIONS
CORE PRACTICAL: INVESTIGATING WATER
PRESSURE

The topics in the red box are just for the 22/23 year 11 cohort