SCIENCE

Don Valley Academy

A-Level sciences
BTEC Level 3
Applied Science

YEAR 11

- Organic chemistry
  - Fractional distillation
  - Hydrocarbons
- Using resources
  - Water treatment
  - Life cycle assessment
- Magnetism
  - Magnetic fields
  - Electromagnets
- Forces
  - Motor effect
  - Scalars and vectors
  - Hooke's Law
  - Forces and motion
- Ecology
  - Newtons' Laws of motion
  - Feeding relationships
  - Classification
  - Deforestation
- Waves
  - Wave equation
  - Electromagnetic spectrum
  - Longitudinal and transverse waves
- Chemical analysis
  - Formulations
  - Gas tests
  - Chromatography
- Rates of reaction
  - Measuring rate of reaction
  - Kinetic theory
- Inheritance & variation
  - Natural selection
  - Reproduction
  - DNA
- Rates of reactions
  - Measuring rate of reaction
  - Kinetic theory
- Inheritance & variation
  - Natural selection
  - Reproduction
  - DNA
- Ecology
  - Deforestation
  - Feeding relationships
- Particle model
  - Solids, liquids and gases
  - Density
- Energy changes
  - Exothermic and endothermic reactions
  - Energy profile diagrams
- Atomic structure
  - Subatomic particles
  - Half-life
  - Radioactivity
- Chemical changes
  - Acids and alkalis
  - Electrolysis
- Forces
  - Scalars and vectors
  - Newtons' Laws of motion
  - Hooke's Law
  - Forces and motion
- Infection & response
  - Pathogens
  - Body defenses
- Energy changes
  - Exothermic and endothermic reactions
  - Energy profile diagrams
- Particle model
  - Solids, liquids and gases
  - Density
- Quantitative chemistry
  - Moles
  - Balancing equations
  - Relative formula mass
- Bioenergetics
  - Aerobic and anaerobic respiration
  - Limiting factors
  - Photosynthesis
- Atmosphere
  - Evolution of Earths' atmosphere
  - Pollution
- Electricity
  - Mains electricity
  - Ohms' Law
  - Series and parallel circuits
- Ecology
  - Deforestation
  - Classification
  - Feeding relationships
- Atmosphere
  - Evolution of Earths' atmosphere
  - Limiting factors
  - Photosynthesis
  - Pollution

YEAR 10

- Energy
  - Energy stores and pathways
  - Energy transfers
- Cells & organisation
  - Eukaryotic and prokaryotic cells
  - Levels of organisation
  - Organelles
- Structure of the atom
  - History of the structure of the atom
  - Electronic configuration
  - Sub-atomic particles
- Chemical changes
  - Acids and alkalis
  - Electrolysis
- Bioenergetics
  - Photosynthesis
  - Limiting factors
  - Aerobic and anaerobic respiration
- Atmosphere
  - Evolution of Earths' atmosphere
  - Pollution
- Forces
  - Contact forces
  - Pressure
- Ecosystems
  - Respiration
  - Photosynthesis
- Earth
  - Climate
  - Earth resources
- Genes
  - Evolution
  - Inheritance
- Reactions
  - Chemical energy
  - Types of reactions
- Energy
  - Work
  - Heating and cooling
- Waves
  - Wave properties
  - Wave effects
- Matter
  - The Periodic Table
  - Elements
- Electricity
  - Magnets
  - Electromagnets
- Ecosystems
  - Plant reproduction
  - Interdependence
- Electricity
  - Potential difference
  - Current
- Forces
  - Speed
  - Gravity
- Organisms
  - Breathing
  - Digestion
- Earth
  - Earth structure
  - The Universe
- Genes
  - Variation
  - Reproduction
- Reactions
  - Acids and alkalis
  - Metals and non-metals
- Energy
  - Energy costs
  - Energy transfers
- Waves
  - Sound
  - Light
- Matter
  - Particle model
  - Separating mixtures
- Organisms
  - Unicellular organisms
  - Animal and plant cells
  - Movement of organisms
- Introduction to science
  - Bunsen burner license
  - Equipment and measurement
  - Risk assessment and safety

YEAR 9

YEAR 8

YEAR 7

welcome