

Science at Kineton High School

Post
16

History of genetic analysis, endosymbiotic theory, evolutionary theories, Charles' and Boyle's Law
 Immunity, Growing plants, Ecology, Human anatomy, Medical physics
 CPAC skills assessed throughout courses through required practicals, research, referencing and reporting
 Microscope calculations, Statistical analysis, Rates of reaction, Data interpretation, Complex mechanics calculations
 Assessed through CPAC skill areas 4 and 5 through required practicals.

Scientific innovation
 Everyday Applications
 Practical Skills
 Maths Skills
 Analysis and Evaluation

Year
11

Evaluation of methods in terms of accuracy, precision, repeatability and reproducibility
 Quantitative Chemistry, data analysis of pollutants, 2-step formulae calculations
 Independently determine appropriate ways to display experimental data.
 Crude oil and its uses, Genetic engineering, Cloning, Ecology, Motors
 Classification of organisms, Evolutionary theories, History of genetics, Development of Big Bang Theory

Year
10

Le Chatelier's Principle,
 Uses of fullerenes and graphene, Nanoscience, Non-communicable disease, Contraception and Fertility treatments and Uses of isotopes
 Write methods that use appropriate materials and apparatus to test hypotheses.
 Bond energy calculations, Rf value calculations, ROR calculations, Photosynthesis graph analysis, Physics formulae
 Identification of potential sources of random and systematic error and calculating uncertainty

Year
9

Explaining trends in data with reference to scientific theory
 Calculating RAM of isotopes, Half equations, Microscope calculations, Surface area to volume ratio, Calculation of half life
 Use theory to write hypothesis and make predictions, Wiring plugs
 Extracting metals, Reducing our carbon footprint, Water treatment, Communicable disease, Heart problems, non renewable energy
 Rutherford's Alpha Scattering Experiment, Development of stem cell treatments

Year
8

Hooke's Law
 Fossil fuel power stations, Energy bills, Greenhouse effect, Electric Motors, Diet and health, Exercise
 Independently follow a method and use apparatus to collect accurate data.
 Calculating proton, neutron and electrons number, domestic fuel bill calculations, line graphs and line of best fit, balancing equations
 Describing trends in graphical data and drawing conclusions

Year
7

Describing trends in tabular data and drawing conclusions
 Anomalies, Calculating the mean, Distance time graphs, Speed equation, Magnification equation, Bar charts, Resultant forces
 Identifying independent, dependent and control variables in an investigation and conducting risk assessments
 Puberty, Fire Safety, Careers in science, Global warming, Chromatography (drug testing and crime scene investigation)
 Isaac Newton, Mendeleev's Periodic Table, History of microscopes

Analysis and Evaluation
 Maths Skills
 Practical Skills
 Everyday applications
 Scientific innovation