Options 15 hours (SL)/25 hours (HL)

= Pick one option to study =

A: Materials

Core topics

A.1 Materials science introduction

A.2 Metals and inductively coupled plasma (ICP) spectroscopy

A.3 Catalysts

A.4 Liquid crystals

A.5 Polymers

A.6 Nanotechnology

A.7 Environmental impact—plastics

Additional higher level topics

A.8 Superconducting metals and X-ray crystallography (HL only)

A.9 Condensation polymers (HL only)

A.10 Environmental impact—heavy metals (HL only)

B: Biochemistry

Core topics

B.1 Introduction to biochemistry

B.2 Proteins and enzymes

B.3 Lipids

B.4 Carbohydrates

B.5 Vitamins

B.6 Biochemistry and the environment

Additional higher level topics

B.7 Proteins and enzymes (HL only)

B.8 Nucleic acids (HL only)

B.9 Biological pigments (HL only)

B.10 Stereochemistry in biomolecules (HL only)

C: Energy

Core topics

C.1 Energy sources

C.2 Fossil fuels

C.3 Nuclear fusion and fission

C.4 Solar energy

C.5 Environmental impact—global warming

Additional higher level topics

C.6 Electrochemistry, rechargeable batteries and fuel cells (HL only)

C.7 Nuclear fusion and nuclear fission (HL only)

C.8 Photovoltaic and dye-sensitized solar cells (HL only)

D: Medicinal chemistry

Core topics

D.1 Pharmaceutical products and drug action

D.2 Aspirin and penicillin

D.3 Opiates

D.4 pH regulation of the stomach

D.5 Anti-viral medications

D.6 Environmental impact of some medications

Additional higher level topics

D.7 Taxol—a chiral auxiliary case study (HL only)

D.8 Nuclear medicine (HL only)

D.9 Drug detection and analysis (HL only)