



THE BRITISH SCHOOL  
ALEXANDRIA  
— since 1984 —

## YEAR 13 CURRICULUM OVERVIEW

### SPRING TERM 2019



#### **ARABIC IAL (A2)**

This term pupils will review some types of writing and study/analyze two novels (دعاء الكروان) والأيدي الناعمة). Students will continue practicing solving all the different types of question in past papers.

#### **BIOLOGY**

This term pupils will look at inheritance, selection and evolution, biodiversity and genetic technology. In inheritance they will focus on the inheritance of multiple alleles, meiosis and how variation occurs, as well as gene expression. Selection and evolution will look at how natural selection leads to evolution and how organisms are artificially selected to produce new varieties. Biodiversity looks at how organisms are classified into different groups based on their characteristics, other aspects of biodiversity and the process of conservation. In genetic technology, pupils will focus on how microorganisms can be manipulated for human use, electrophoresis, bioinformatics in medicine and the significance of genetic engineering in improving the quality and yield of crop plants.

#### **BUSINESS STUDIES**

Pupils will develop their knowledge and understanding on previous knowledge learned in first term. They will investigate business decisions and strategies, including business ethics, interpretation of financial statements, ratio analysis, human resources, causes and effects of change and scenario planning. Pupils will also learn about global business, international trade, trading benefits and drawbacks, assessing the country as a market, types of market, factors that affect the market, mergers, joint ventures and the impact of multinational companies.

## **CHEMISTRY**

This term pupils will conclude the topic of organic chemistry by studying the chemistry of amino acids and peptides, polyesters and polyamides. Pupils will then focus on developing their ability to interpret complex spectra such as carbon-13 and proton NMR, chromatography and fragmentation spectra of mass spectrometry. They will conclude the syllabus content by looking into the synthesis of chiral drug molecules and the analysis of multi-stage synthetic routes.

## **HISTORY**

Pupils will continue studying 'The British Experience of Warfare, 1803-1945' and 'The World Divided: Superpower Relations, 1943-90'. In both courses they will be adding to their subject knowledge and given lots of opportunity to practise and hone their exam skills by completing lots of past questions.

## **MATHEMATICS**

### **PHYSICAL EDUCATION**

This term pupils will follow their pathway option. Group one will look at football, working on basic skills and simple game tactics. Group 2 will be visiting a local gym and designing a fitness programme, with Group 3 taking part in a spinning course again at the local gym.

### **PHYSICS**

In the oscillations topic pupils will study simple harmonic motion and its widespread application. Next they will move on to quantum physics investigating the experimental developments that led to our understanding of the wave-particle duality of light. This includes theoretical work with the Einstein photoelectric equation and the application in spectral analysis. In the topic of particle and nuclear physics pupils will examine calculations relating to energy transfers in nuclear reactions. Finally they will look at alternating currents including how a cathode ray oscilloscope works and how public power utilities produce a well-regulated source of electricity.