Southend High School for Girls
Sixth FORM

Course outline

Head of Department:
**Mr James**

Minimum entry requirements:
**Grade 7 in GCSE Biology or**
**Grade 7-7 in Combined Science**
**Grade 6 in GCSE Mathematics**

# Biology

## What will you study in Year 12?

You will learn about human physiology; in particular, the digestive and respiratory systems, and how these systems function. You will also study the variety of life from genetic evolutionary perspectives. Practical, laboratory and investigative skills are developed and assessed throughout the course.

## What will you study in Year 13?

You will learn about the metabolic processes of respiration and photosynthesis and then look at these processes in the context of energy flow in ecosystems and how that balance is compromised by human demands. You will also further your understanding of physiology through topics such as the nervous system and homeostasis. Finally, we will examine gene technologies. Practical skills will be developed further and assessed throughout the course.

## How will you be assessed during the course?

All units are synoptic, which initially build upon GCSE, and then refers back to the topic covered as you move through the course. There will be set modules throughout the year which will be focused around how science works, mathematics and data interpretation, along with core knowledge of biological processes. You will be assessed in school through the use of end of topic tests. You will also be assessed on termly cumulative assessments to check for understanding across many topics.

Set practicals will be carried out throughout the year, and these will be the focus of questions in the final examinations.

There will be three 2 hour examinations sat at the end of the course, and these will include questions based on the techniques mastered during practical aspects. The course is completely synoptic so many links will be made back to previous topics covered. For further details on this please consult the website below. This will also by assessed in paper 3 with a 25-mark synoptic essay.

## Where will this course lead?

Due to its focus on application, data analysis and mathematics skills there is a wealth of opportunities opened up by obtaining Biology A level. It can ultimately lead to a huge variety of degrees and careers: medical, environmental, research, journalism, sports-science, physiotherapy and teaching. Furthermore, the issues we cover are, and will continue to be, speculated on in the media. An A level in biology allows you to have an informed opinion on these topics.

## Additional information and support

We will be following the AQA specification, the link to this is:

https://www.aqa.org.uk/subjects/biology/a-level/biology-7402/specification

We have participated successfully in the Biology Olympiad and are looking to invite Meducators (or other similar companies) into the school. Our pupils have used many of the opportunities we have shared to secure summer and week-long placements in labs and other venues.

The department holds Biology open house sessions on Wednesdays and has Year 12 “biology buddies” that attend regularly to assist other students. This is open to all students.