S3/4 Biology Course

What's involved?

Information for Pupils and Parents

What is the course about?

Biology is the study of living organisms. Biology plays a crucial role in our everyday existence and is an increasingly important subject in the modern world. Advances in technologies have made this subject more exciting and relevant than ever.

The course develops the ability to think analytically, creatively and independently to make reasoned evaluations through a variety of approaches including practical activities. Opportunities will be provided for learners to develop informed and ethical views of complex issues. The National 5 course will encourage communication, collaborative work; develop leadership skills as well as confidence in scientific skills.

How is the course organised?

The National 5 Biology course has **3 mandatory units** and **an assignment**.

- Unit 1 – Cell Biology
    1. Micro-organism
    2. Cell structure and culture
    3. Transport across the membrane
    4. Enzymes
    5. Respiration
    6. DNA and genetic engineering
- Unit 2 – Multicellular organisms
    1. Cell division
    2. Growing plants
    3. Reproduction and survival
    4. Variation and inheritance
    5. Control and communication
    6. Animal exchange and transport of materials

- Unit 3 – Life on Earth
    1. Photosynthesis
    2. Biodiversity and the distribution of life
    3. Energy in Ecosystems
    4. Human Impact
    5. Adaptations, Natural selection and evolution of species
    6. Sampling Techniques

- Assignment - The purpose of this assignment is to allow for the opportunity to apply the skills and knowledge we have learned in class by investigating a chosen topic in Biology. The assignment MUST include practical or fieldwork element. The assignment is worth **20% of your final grade** and will be **externally assessed.** The assignment is carried out under exam conditions, with a time restriction of an hour and a half.

How will you (or your young person) be assessed throughout the course?

Throughout each Unit you will sit a course level assessment test on the topics, to assess progress in the course. Only if you fail this will you be asked to sit an SQA unit UASP assessment and must gain 50% to pass the unit.

Results from your topic tests and prelim will determine whether you are entered for:

- National 5 course award and exam
- National 5 unit award in final exam diet
- National 4 award

External Assessment

Your final grade is based on an SQA examination (80%) and your assignment (20%) both are externally assessed. Your results will be graded A-D.

The exam will be 2 ½ hours and is out of 100 marks in total.

Section 1 – 25 marks, multiple choice questions
Section 2 – 75 marks for written structured questions

(Exam has been extended this session due to removal of mandatory units and experimental assessment)

What skills are assessed as part of the course?

The following provides a broad overview of the subject skills, knowledge and understanding developed in the course.

- Demonstrating knowledge and understanding of biology by making statements, describing information, providing explanations and integrating knowledge.
- Applying knowledge of biology to new situations, interpreting information and solving problems
- Planning, designing and safely carrying out experimental/fieldwork investigations to test given hypotheses or to illustrate particular effects
- Selecting information from a variety of sources
- Presenting information appropriately in a variety of forms
- Processing information (using calculations and units, where appropriate)
- Making predictions and generalisations based on evidence/information
- Drawing valid conclusions and giving explanations supported by evidence/justification
- Suggesting improvements to experimental/fieldwork investigations
- Communicating findings/information

How can you support your young person?

Each pupil should use their class notes, homework booklets & revision materials to support ongoing revision between classes, as well as in preparation for exams. Helping them organise these materials into a folder and regularly asking them about what they are studying will be useful. Creating a study timetable together can also be useful to balance commitments.

Past papers and marking instructions

Past papers are an excellent way to check your knowledge and also to practise exam technique. Past papers can be accessed at http://www.sqa.org.uk/pastpapers/findpastpaper.htm?subject=Biology&level=N5

Useful websites

There are a number of websites which your young person may find very beneficial.

Bitesize http://www.bbc.co.uk/education/subjects/zync87h

Oronsay http://www.oronsay.org/Nat5.htm

Revision in a Nutshell

http://www.npfs.org.uk/wp-content/uploads/2015/03/nutshells_revision_N5_biology.pdf

Pupil's responsibilities

Homework

1. You should read over your notes regularly at home to remind yourself of what you have studied. Ask your teacher the next day about anything you haven't understood.
2. After an absence you should catch up what you have missed
3. Homework should be recorded in your homework diary and must be completed on time. Your parents will be informed if your homework is not completed.

Other Responsibilities

1. Keep your notes organised into sections to allow easy revision and finding information for homework.
2. Bring your notes, etc with you to every lesson.
3. Keep track of your progress and work on your targets

Good Luck!!

Dates for the Diary

Multicellular Test 1 – Beginning of September

Multicellular Test 2/UASP – November

Prelim – December

Life on Earth Test/UASP – March

Additional Prelim – April

FINAL EXAM – Wednesday 13th May 2019