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Beath High School

S2 into S3 Learner Pathway

Science

2020-21





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S3 Learner Pathway

S2 pupils are now considering their S3 Learner Pathway as they move towards their third year at Beath High School. From the full range of courses on offer, pupils are required to choose seven different subjects to study during third year, including English and Maths. Pupils will also choose an Elective choice.

At the end of their third year, pupils will take their seven subjects forward into their fourth year and complete SQA Qualifications in the same seven subjects. It is therefore important that the correct choices are made. To ensure that they have as much information and guidance as possible, and in addition to all of the general advice given in Personal and Social Education classes, we provide pupils with an individual interview with their Guidance teacher.

A significant amount of work has been done to review our curriculum offer to deliver our curriculum rationale:

The Beath curriculum is designed to encourage the learning and development of all of our young people. Our curriculum allows learners to achieve their true potential through flexible pathways to success. Personalisation ensures that the needs of all learners are met. Our young people gain a portfolio of qualifications, experiences and skills from our curriculum. We utilise partnership working and we focus on improving attainment and achievement. Our learners are supported into a robust and sustained positive destination.

If you have any further questions, please do not hesitate to make contact with the school.





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SCIENCE FACULTY

- **Biology**
- **Chemistry**
- **Physics**



Subject: Biology
Year Group: S3

Course Structure and Content:

In third year, we will introduce a number of different units. Cell Biology looks at cell structure and how cells work, along with essential cellular processes. In Multicellular Organisms we study body organs, how these work in our body and conditions which would impact on how these work. In the third term we start to study Life on Earth, this unit is a complete study of the environment, the world around us and how energy flows through this.

Skills Development:

Through enjoyable learning in Biology pupils will develop the following Scientific skills:

- Investigative skills
- Analytical skills
- Communication skills
- Skills in organisation
- Skills in working both collaboratively and independently
- Problem solving skills

Furthermore, pupils will develop skills in Literacy, Numeracy and Health and Well-Being across the curriculum.

Progression into the Senior Phase and Beyond:

Depending on the progress made by each pupil, pupils will go onto to study Biology at one of the following levels:

- National 3
- National 4
- National 5

Success in National 5 will enable pupils to progress onto:

- Higher
- Advanced Higher

Career/Opportunities:

The skills and knowledge you will learn in Biology will open up a widespread choice of careers in:

Medicine, nursing, dentistry , agriculture, pharmacology, teaching, research and development, occupational therapy, conservation, environmental science, speech therapy, food science, forensic science, ophthalmic optics, brewing, dietetics, ecology, microbiology, beauty therapy, biochemistry, Laboratory work, veterinary medicine, sport science, to name a few!.

Methods of Assessment:

- Continuous in class assessment using “show me boards”, quizzes, spot tests and teacher observations.
- Peer and self-assessment
- Practical Investigations
- Homework
- Unit tests



Subject: Chemistry
Year Group: S3

Course Structure and Content:

S3 Chemistry is a course which will involve a lot of experimental work as well as developing a greater understanding of the foundations of Chemistry. We will start with the study of reaction rates before looking in depth at the atom and the periodic table. We will then look at the role of the element carbon in various fuels which come from crude oil as well as in consumer products such as foods and alcohols.

Skills Development:

Through practical and enjoyable work in Chemistry pupils will learn the following Scientific Skills:

- Investigative skills
- Analytical skills
- Communication skills
- Skills in organisation
- Skills in working both collaboratively and independently
- Problem solving skills

Furthermore, pupils will develop skills in Literacy, ICT, Numeracy and Health and Well-Being across the curriculum.

Progression into the Senior Phase and Beyond:

Depending on the progress made by each pupil, pupils will go onto to study Chemistry at one of the following levels:

- National 3
- National 4
- National 5

Success in National 5 will enable pupils to progress onto:

- Higher
- Advanced Higher

Career/Opportunities:

The skills and knowledge you will learn in Chemistry will open up a widespread choice of careers in:

Engineering, biochemistry, law, advertising, government security services, geology, science journalism, agriculture, chemical engineering, teaching, dentistry, dietetics, environmental health, environmental science, food science, forensic science, horticulture, laboratory work, medicinal chemistry, medicine, nursing, oil and gas production, pharmaceuticals, quality control, research and development, quality control and waste management.

Methods of Assessment:

- Continuous in class assessment using “show me boards”, quizzes, spot tests and teacher observations.
- Peer and self-assessment
- Practical Investigations
- Homework
- Unit tests



Subject: Physics
Year Group: S3

Course Structure and Content:

The S3 Physics course is based on three areas:

Dynamics - moving objects from the atom up to galaxies in space.

Electricity and Energy - electrical circuits including measurement; uses of heat and generation of electrical energy

Waves and Radiation - properties and uses of differing waves e.g. sound, x-rays, radio

Skills Development:

Through practical and enjoyable work in Physics pupils will learn the following Scientific Skills:

- Investigative skills
- Analytical skills
- Communication skills
- Skills in organisation
- Skills in working both collaboratively and independently
- Problem solving skills

Furthermore, pupils will develop skills in Literacy, Numeracy and Health and Well-Being across the curriculum.

Progression into the Senior Phase and Beyond:

Depending on the progress made by each pupil, pupils will go onto to study Physics at one of the following levels:

- National 3
- National 4
- National 5

Success in National 5 will enable pupils to progress onto:

- Higher
- Advanced Higher

Career/Opportunities:

The skills and knowledge you will learn in Physics will open up a widespread choice of careers in:

Engineering, civil aviation, astronomy, computing, construction, dentistry, electronics, geophysics, laboratory work, medical physics, medicine, meteorology, oceanography, research and development, physiotherapy, radiography, optics, sports sciences/coaching, surveying, teaching and telecommunications.

Methods of Assessment:

- Continuous in class assessment using “show me boards”, quizzes, spot tests and teacher observations.
- Peer and self-assessment
- Practical Investigations
- Homework
- Unit tests

