A1

What our students say:

"I found studying Biology hard, but it was worthwhile. Studying Biology at A level made me change my mind about what I wanted to study at university."

"I found that studying the human biology is the area I liked most; learning about the heart and the role of all the blood vessels was very interesting. Our bodies are fascinating!"

"Choosing Biology was a brilliant decision because I thoroughly enjoyed the lessons and practical work. I chose it with Maths and Psychology and; Biology link really well."

Biology

Fullbrook6

Big enough to challenge, small enough to care

Slide 1

A1 Author, 14/03/2022

BIOLOGY

Fullbrook6

This evening we are going to tell you about:

- Course structure
- Assessment
- Extra resources
- Potential degree routes from the A-Level?
- 100 min lessons
- Subjects that work well with this subject?

Fullbrook6

Big enough to challenge, small enough to care

Year 1

1. Biological molecules

- Biochemistry of key biological molecules

2. Cells

- Ultrastructure of eukaryotic and prokaryotic cells, the use of microscopes, movement of biological molecules and the immune system

3. Organisms exchange

- How organisms exchange material with their environment

4. Genetic information and variation

- Genetics, DNA and the controls of protein synthesis and links to biodiversity

Year 2

1. Energy transfers

- Respiration and photosynthesis and how energy moves through ecosystems

2. Responses to the environment

- How responses are brought about by the nervous and hormonal systems

3. Genetics, population and evolution

- Genetic crosses and links to the changes in populations over time

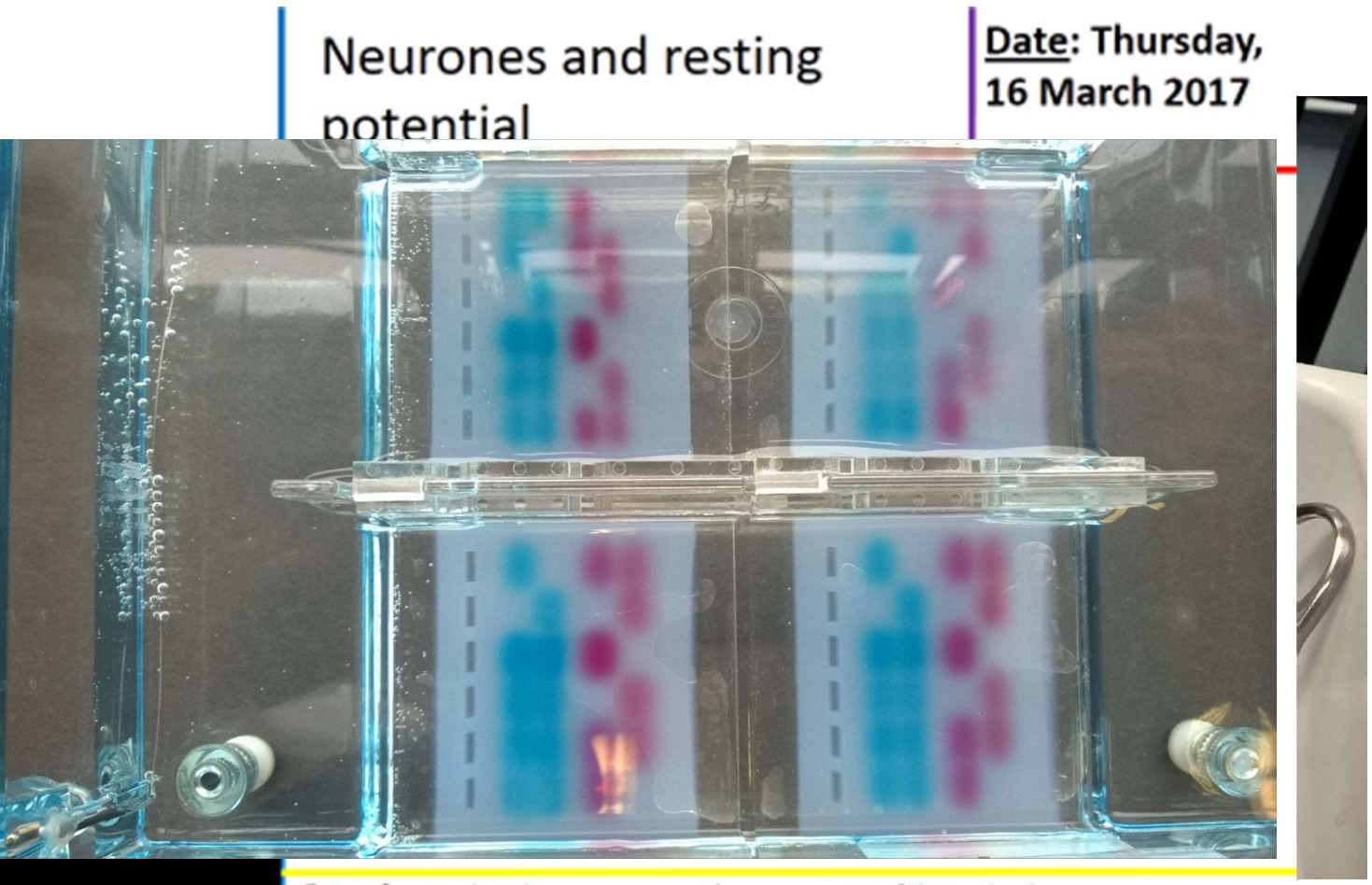
4. The control of gene expression

- How genes are controlled and scientific methods using the genome

Biology Curriculum Structure

Fullbrook6

Big enough to challenge, small enough to care



- Biology has a large theoretical content
- There is numerous pieces of core practical work that has to be completed
- Other practical work

Biology Curriculum

Fullbrook6

Big enough to challenge, small enough to care

100 Minute Lesson Benefits

- Allows concepts to be developed in greater depth in a single lesson
- Less interruption in teaching concepts as less content will need to be delivered over multiple lessons.
- More time to develop correct links with prior learning and therefore retain more information.
- Time to plan, complete and review practical work within one lesson.
- More time for immediate feedback to be received in lesson.
- More time to challenge students understanding.
- Build better relationships.

What Does an A level Biology lesson look like?

- Prior self study – pupils read current topic from their text book
- Remember task: Review previous knowledge and/or skills. Discuss and receive feedback on homework.
- Teacher introduces new content, and work with students to make comprehensive notes and check understanding.
- This could involve
  - Working collaboratively on whiteboards to build ideas
  - Completing laboratory work including required practical activities eg: working out the mitotic index in a root tip
  - Working with students to model exam problems with the class

Student expectation: For every 1 hr of lesson time, the pupils are expected to do the same amount of time in self study – even if homework is NOT set

A level exams

Paper 1	Paper 2	Paper 3
What's assessed • Any content from topics 1–4, including relevant practical skills	**What's assessed** • Any content from topics 5–8, including relevant practical skills	**What's assessed** • Any content from topics 1–8, including relevant practical skills
Assessed • written exam: 2 hours • 91 marks • 35% of A-level	**Assessed** • written exam: 2 hours • 91 marks • 35% of A-level	**Assessed** • written exam: 2 hours • 78 marks • 30% of A-level
Questions • 76 marks: a mixture of short and long answer questions • 15 marks: extended response questions	**Questions** • 76 marks: a mixture of short and long answer questions • 15 marks: comprehension question	**Questions** • 38 marks: structured questions, including practical techniques • 15 marks: critical analysis of given experimental data • 25 marks: one essay from a choice of two titles

- Exam only – no coursework
- Practical skills assessments
  - Teacher assessed
  - Separate from A level qualification

A level Biology exams

- 10% will be based on GCSE higher tier maths skills or above
- 15% will be based on core practical skills

Assessment

Fullbrook6

Big enough to challenge, small enough to care

Entry requirements

- Historically we have found that at least two 6s in Science GCSE's will allow you to be successful at A level.
- We also asked for a 6 in Maths and a 5 in English.

Fullbrook6

Big enough to challenge, small enough to care

- Biology links well to many A level subjects.
  - Sciences – Chemistry, Physics and Maths
  - Social Sciences- Psychology, Sociology
  - Course content - PE, Geography
  - Skills based- English, History
- Biology is one of the 8 facilitator subjects highlighted by universities. These courses develop many of the skills required for individuals to be successful at universities.
- These skills include problem solving, data analysis, communication and team work to name a few…

A level Biology links to the following university courses/training/apprenticeships:

- Medicine
- Pharmacy
- Biomedical Sciences
- Biology
- Biochemistry
- Dietetics & Nutrition
- Veterinary science
- Dentistry
- Sports science
- Physiotherapy
- Nursing
- Materials Science
- Food Tech
- Zoology
- Psychology
- Environmental science
- Geography
- Midwifery
- Engineering

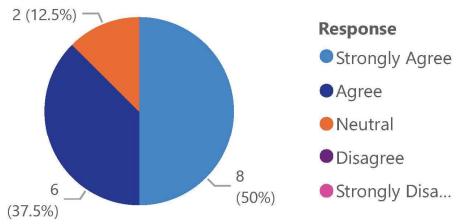
Any questions?

Career prospects…

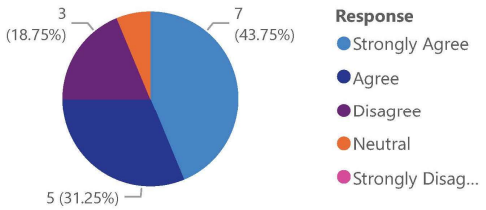
Fullbrook6

Big enough to challenge, small enough to care

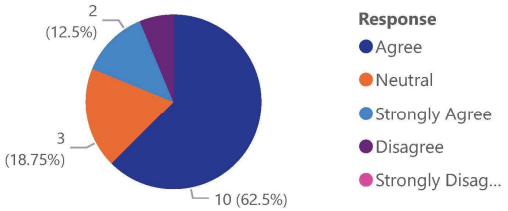
Lesson are well planned with varied activities.



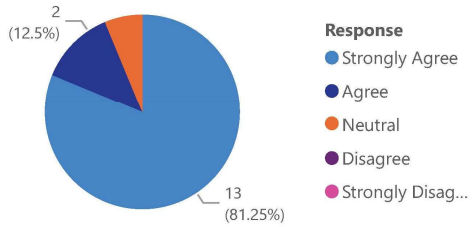
Exemplar answers are modelled to help me see how to do something.



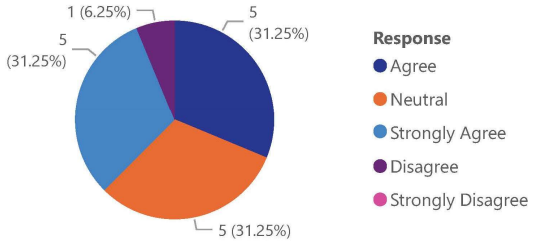
I feel that I have been well prepared for my final exams.



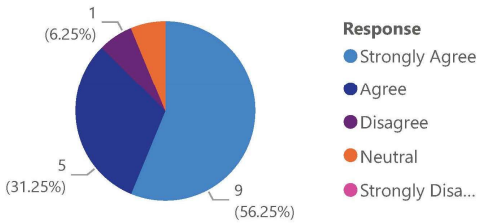
My teachers are passionate about their subject.



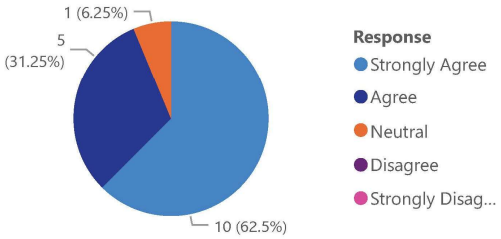
Feedback is given to help me make progress.



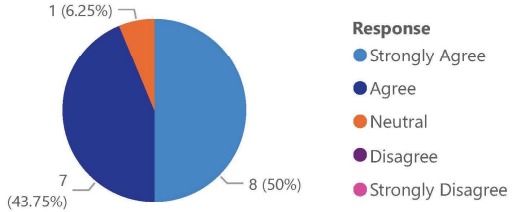
TIme is taken to go over complex concepts to make sure I understand it.



I enjoy my Biology lessons



I feel comfortable asking questions if I do not understand something.



Fullbrook Biology

A Level Biology Student Feedback

Fullbrook6

Big enough to challenge, small enough to care

Fullbrook6

Big enough to challenge, small enough to care

Fullbrook6

Big enough to challenge, small enough to care

Fullbrook6

Big enough to challenge, small enough to care

Fullbrook6

Big enough to challenge, small enough to care