

Welcome to Science at OASB! Some useful information and FAQs...

The Science curriculum

- We have a five-year curriculum which focuses on students securing the important knowledge required to build a depth of understanding up to A level and beyond. We focus on the big, fundamental ideas in our aim is that students truly master this so that they can apply their understanding to wider contexts and excel in science at A level and university in order to secure their dream job.
- We then offer A levels in Biology, Chemistry, Physics and Psychology in Year 12 + 13.

Classes and sets

- All pupils are placed in a set from A – E based on their KS2 results
- A has 30 pupils, B has 28 pupils, C has 25 pupils, D has 22 pupils and E has 15 pupils.
- Set D and E will usually have one other teacher to support.
- The sets are fluid and pupils move every half term based on their post-assessment result – all students can move up if they demonstrate that they have mastered the knowledge that half-term!
- All pupils study the same content, the pace is different so that pupils can be stretched or supported and feel confident in their class.

GCSE

- Start in Year 9 so we have years to master the content.
- Classes A + B sit GCSE Separate Science achieving 3 GCSE (biology, Chemistry, Physics).
- Classes C + D sit GCSE Combined Science achieving 2 GCSEs (a mean score from Biology, Chemistry and physics).
- All classes study the same Biology, Chemistry and Physics topics, but Separate Science students complete some additional topics in order to sit the Separate Science exams.
- All pupils sit it in Year 11

Homework

- Science homework is sat once each week.
- There are two parts to your homework:
 1. Securing the knowledge through self-quizzing
→ Teachers will check that your knowledge is secure by setting a weekly quiz in the lesson
 2. Applying this knowledge to a challenging extended question
→ Teachers will give detailed feedback on your extended questions and you will redraft and improve it.
- We have weekly quiz clubs and homework clubs to help you with this!

The Knowledge

- We believe that knowledge is power. Building a strong and secure background knowledge of the fundamental ideas in science means that you can also master the harder stuff! We want you to be able to study science at A level and they go on to become incredible scientists who change the world! To do this we regularly self-quiz on the knowledge so that you are masters of this.

Support

- Excellent teaching is the most effective way to support students who might need some extra help. Our lessons are designed using evidence from the latest research and cognitive science, so we know that students are getting the highest quality teaching. Our results for students with SEND are some of the best in the country because of this!
- Set D and E also have up to two extra teachers in the room.
- Students can attend weekly quiz and homework club to get extra help with their work.
- Our lessons are calm, consistent and focused meaning all students can excel.

Practical work

We have 5 fully equipped labs and two technicians.

Students complete practical work from year 7 all the way up to A level.

Some of our favourite practicals include:

- Growing bacteria to investigate the effect of different antiseptics
- Making crystals of copper sulfate
- Dissecting a heart
- Investigating waves using a wave machine

Stretch

- A group of students complete an additional GCSE in Astronomy at Westminster School
- Half of our students sit the more challenging Separate Science GCSE.
- Half of our A level students choose Biology, Chemistry, Physics or Psychology at A level (lots of students from set C too!).
- We have a Science Club which blends engaging practicals with challenging real-life contexts.
- Some of our trips include:
 - Medical careers taster days with Kings College London
 - A trip to CERN in Switzerland!
 - Visits from NASA!