

Dear Parent/Carer,

Happy New Year!

We are excited to share an update from each subject within the faculty, outlining what students will be learning and what they can look forward to this term. We sincerely appreciate your ongoing support as we work together to help your child thrive. To access the details for the relevant subjects, simply click on the hyperlinks below.

[Product Design](#)

[Applied Science \(BTEC\)](#)

[Biology](#)

[Chemistry](#)

[Economics](#)

[Engineering \(BTEC\)](#)

[Environmental Science](#)

[Geology](#)

[Maths – single A-level](#)

[Maths – double A-level](#)

[Maths – GCSE](#)

[Physics](#)

[Psychology](#)

Kind regards

Hannah Page

Director of Faculty – Science

3D Design	Back
This term in 3D Design: We are focusing on the coursework element. This makes up 60% of the overall grade and will now be the focus for both in class work and for homework. We expect students to spend at least 4 additional hours outside of lesson time working on the coursework to supplement their classwork. The section we are currently working on involves students producing 6 separate designs based on the reference boards they completed over the last half term. They need to document their process with screen shots explaining WHAT they did HOW they did it and WHY they did it. And each design needs a render, a clay render and a post-production render.	
This term, students may notice the workload increase along with the pace we expect students to work. Over the first half term we focused on building students' confidence and skill using our industry standard software. Now that they are comfortable with these, it is up to them to apply these skills in their own personal investigations.	
Independent study this term: Students are expected to continue working on their coursework (personal investigation) in their independent study and pro study time throughout this term.	
Pro-study this term:	
Next assessment(s): Work is assessed every two weeks on teams; the first assessment is 18/1/2026 and will be every two weeks following this date.	
Further information: Workshop timetable: Monday, Wednesday, Friday Lunchtimes.	Other reminders:

Applied Science AAQ	Back
This term in Applied Science: A large focus this term will be on the NEA (coursework) unit in the spring term. This will be completed in March and is worth up to 25% of their final grade. We will also continue to work through the Fundamentals of Science unit ready for assessment by external exam in May this year. This is also worth up to 25% of the students final grade.	
This term students may notice that Applied Science continues to be fast paced and as both the NEA and Exam units approach, students need to ensure they complete all their independent work. Workshops are available weekly, and students can attend if they are unsure of any areas of their work. Students will need to ensure that their notes are complete, and organised ready for the NEA. They also need to make sure they are learning key words and vocabulary for the Exam unit. Students should continue to practice their IT skills, writing reports on Word including referencing correctly, and using Excel to analyse data.	
Independent study this term: Tasks will be set and handed in on Teams weekly. Depending on what we are working on, these will be either a variety of tasks, quizzes, worksheets, or exam questions, to support the learning covered in class, or tasks designed to support preparation for their NEA, such as writing experimental reports in Word.	
Pro-study this term: We will complete more NEA style write ups and students will need to reflect on their strengths and weakness regularly and complete tasks to identify areas they need to work	

on. Learning key vocabulary, and scientific units, of the biology, chemistry and physics aspect of the class is crucial for understanding and answering exam questions. Practicing calculations, especially chemistry, is always useful.

Next assessment(s):

NEA worth 25%. This will be running throughout March and will include 2 days of compulsory controlled assessments where students plan and complete their NEA write ups. Date TBC.

Fundamentals of Science Mock Exam: After Easter.

Fundamentals of Science External Exam worth 25%: May

Further information:

Workshops will be held on Monday lunch time. These are open to all students as a drop-in but are compulsory for students currently on an Action Plan.

Revision workshops will be available prior to the Exam in May.

Other reminders:

Students need a folder system to organise their work, as well as paper, pens, pencils, rulers etc. for all lessons. Students will also need to bring a calculator to all lessons.

Biology

[Back](#)

This term in OCR Biology A-level course we will be building on the foundation of knowledge and skills gained in Module 2. We will study Module 3 this term. Topics include Exchange surfaces, transport in animals, transport in plants, disease and immunity.

This term students may notice that in Biology we build on the Module 2 topics from the first term and introduce more complicated and interlinked topics from Module 3. Students will be set flipped learning tasks to cover previous knowledge required for current topics.

Independent study this term: Students are provided with a study guide and PPQs for each topic. The expectation is that students complete, and self-mark all the PPQ questions and relevant sections of the study guide before the end of topic test. Mark schemes are available on the Biology SharePoint site. Support is available during drop-in workshops, and students are expected to seek help as and when required.

In addition to the study guide packs, PPQs, PPTs and revision materials on SharePoint, we have a wealth of online resources. These can all be accessed via the SharePoint site, including Kerboodle, E-revision, Biological Sciences review and Massolit.

Pro-study this term: Pro-study tasks are designed to support and extend students' understanding of the content covered in lessons. Suggested activities and study schedule can be found on the Biology SharePoint site. Some weeks teachers will set specific tasks for students to complete. Pro-study should be uploaded to Teams by the deadline. Teams assignments will not allow late hand-ins, and we will not check late work. We expect students to complete a minimum of 5 hours of independent study per week.

Next assessment(s): The first assessment will take place during the first week of term assessing the biological membranes & cell membranes topics. The Mid-Year Exam will take place during the

week beginning 19/1/26. This will assess all content taught during Term 1. The Gas Exchange and Animal Transport assessment will take place during the week beginning 23/2/26.

Students will receive advance notice of upcoming tests, usually through announcements on Teams, so they should make sure they have notifications for that switched on. Test dates can also be found on the scheme of work.

Further information:

Biology workshops run on Tuesday, Wednesday and Thursday lunchtimes in S207. Please come along with any Biology questions or topics you need help with.

Other reminders:

2/2- Anatomy experience
11/3 - Trip to Portsmouth University

Chemistry

[Back](#)

This term in Chemistry we will be looking at Module 3 topics which concentrate on physical and inorganic Chemistry and then onto Module 4 and the introduction of organic Chemistry. Their knowledge is developing so that they can answer more questions on paper 1 of the OCR exams. Students need to be continually going through previous material as revision, working on their long-term memory.

This term students may notice that they deepen their knowledge even further of Chemistry topics and most of the learning is new to them. As always, support is available to all students through their tutor, teacher, TEAMS, SharePoint, workshops and the study support and wellbeing teams.

Independent study this term: As always, students are given past paper questions (PPQs) for all topics we study, and these prepare them well for any tests or exams, internal or external. Our expectation is still that students attempt all questions in all sections of the PPQs and ask for clarification if anything is unclear. PPQs have three sections. Section A is current material and completed by the student before Section B, which is also current and either marked by the teacher or peer marked. Section C is synoptic and again is completed and marked by the student prior to section B. All answers can be found on SharePoint.

Pro-study this term: Pro study for the week can be found on the 1A SharePoint page. This is designed to enhance their learning of current material or revise previous topics or develop their skills in other areas. In the second term, they will be looking at topics such as shapes and analysing graphs. As always, the remaining time should be spent going through past PPQs and end of topic tests they may not have done so well in and spend time on revision of past topics.
The expectation is still that students spend 4 hours of study in total outside of the classroom.

Next assessments: Students are assessed every 3 weeks or so. Within the scheme of work the tests are week beginning January 12th, February 9th, March 2nd, March 16th. However, these are subject to change depending on where the teacher is with the topic. There is also a midyear exam in February which is a 90-minute paper, and they will be given information on the exam including the date, time, effective forms of revision and topics covered well in advance.

Further information:

Year 1 Workshops: Tuesday lunchtimes
1.20pm-2.00pm

Other reminders:

Workshops will be held weekly and are open to all students to drop in but are compulsory for any student on an Action Plan.	
---	--

Economics	Back
This term in Economics we will be covering In Microeconomics • How markets are interrelated. • Why markets may fail to deliver an efficient outcome and what governments might do to improve this. • In Macroeconomics Each of the main Macroeconomic objectives will be covered individually in more detail. Students will need to learn and consolidate the following in each case: • What the objective is and why it is important to achieve it. • What different types/causes exist of each of the objectives. • What policies government might use to achieve the objectives. • Whether there are potential problems or conflicts when targeting these objectives.	
This term students may notice • There will be an increased emphasis on developing evaluative essay skills and practising answering past paper essay questions. • There will be an expectation the students will rewrite sections of their work as appropriate to develop their examination skills more rapidly and effectively. • There is an expectation that students will continue to revise past material covered to keep it fresh and relevant to their current studies.	
Independent study this term: • All independent study is listed on the Scheme of work. • Homework tasks include calculations, data tasks and longer answer questions ('explain' and 'evaluate'). These should be uploaded to Teams. • Self-directed independent tasks are proactive tasks that will further support student learning and include: • Re-doing any work not of a sufficiently high standard (at least achieving the student's target grade).	

Pro-study this term: This generally involves preparation tasks for lessons (flipped learning). This includes watching YouTube videos and reading articles and news stories. Preparation tasks are required before the first lesson of the week.	
Next assessment(s): Two key assessments (one macro and one micro) will take place this term. Details of these are on the schemes of work. There will be other class tests to monitor previous material.	
Further information: Workshop timetable: Tuesday, Thursday and Friday in G102	Other reminders: Please check that you have made the £10 contribution towards class resources.

Engineering (BTEC)	Back
This term in Engineering we will be looking at Unit 3 topics which focus on engineering design and manufacture of the selected product. This unit comes to an end in March. The students will be required to produce a portfolio report and their product. This will require using a variety of engineering materials and mastering manufacturing techniques. Alongside unit 1 will be delivered, and the focus will be mechanical principles and fluids dynamics.	
This term students may notice Increased pace of the skills that they need to attain, CAD, manufacturing skills and report writing skills. A considerable amount of independent study focused on their design solutions. Students will also gain workshop engineering skills. Unit 1, will apply practical question to mechanical theory, the class work will be focused on solving problems that combine mathematical principles.	
Independent study this term: Unit 3 – Complete design solutions, manufacturing and materials techniques. Report writing and completing their written report. Unit 1 - tasks questions.	
Pro-study this term: Unit 3 – Complete design solutions, manufacturing and materials techniques. Report writing and completing their written report. Unit 1 - tasks questions.	
Next assessment(s): Mock Test in unit 1 – March 2026 Unit 3 – Portfolio and design work to be completed by the 20th of March	
Further links: Workshops: TBC, this will be located on Student SharePoint for Engineering.	Other reminders: Order any materials that are required for unit 3.

Environmental Science	Back
This term in Environmental Science we will focus on the Physical Environment. Students will explore the Atmosphere, Hydrosphere, Lithosphere, and Mineral Resources. In the Atmosphere unit, they will study the causes of climate change and its global environmental impacts—an urgent and highly relevant issue facing humanity today. In the Hydrosphere, students will examine how human activities are polluting water sources and contributing to water scarcity. Finally, in the Mineral Resources unit, they will investigate the geological processes that produce natural resources, as well as the environmental impacts of mining.	
This term students may notice the change in emphasis from the Biological Environment. Although there is a change in focus, all topics relate to impacts on ecosystems. The topics in this term link to second year topics of Energy Resources and Pollution.	
Independent study this term: You will continue to have weekly tasks relating to lesson content and past paper questions.	
Pro-study this term: Weekly pro-study is scheduled on SharePoint and students should be in the routine of completing this by the deadline.	
Next assessment(s): There an end of topic assessment near the start of January and a mid-year assessment.	
Further information: Workshop timetable: Monday: 12.15 – 2.05, Friday: 9.45 – 10.50 in J201	Other reminders: Several of the ‘Kirsty Brown’ talks this term are directly related to the course, make the most of these opportunities!
Geology	Back
This term in Geology we will finish studying igneous and metamorphic rocks before moving on to structural geology, which includes faults and folds. Students will be trained in constructing cross-sections from maps—an essential skill for the final exams and a key requirement for the transfer exam. Before Easter, we will begin the comprehensive fossil unit. As with the first term, theory lessons will be complemented by a variety of practicals, including hand specimen work and scientific investigations. Additionally, there will be another term of valuable enrichment talks that all students are encouraged to attend.	
This term students may notice that past exam questions will incorporate more aspects of the course and retrieval questions will now include questions from last term as well as last month and last lesson.	
Independent study this term: Project work will include producing a portfolio of rocks, geological structures and fossils that will become valuable revision resources. In addition, there are occasional small research-based projects.	
Pro-study this term: There will be weekly maths pro study. However, by the end of the term this will change to weekly cross sections.	
Next assessment(s): The next assessment will be the mid-Year Assessment towards the end of January, that will include everything up to the end of igneous rocks.	

Further information: Workshop timetable: Monday: 12.15 – 2.05, Friday: 9.45 – 10.50 in J201	Other reminders: Aim to attend all the Kirsty Brown enrichment talks. Students must ensure their practical folders are organised and up to date.
---	---

Maths: Single A-level	Back
This term in maths we build on topics from the first term and introduce more complicated statistics and mechanics topics, such as probability distributions and equations of motion for accelerating objects. In pure maths, students will be introduced to integration and how this can be applied to mechanics, as well as being introduced to new functions such as exponentials and logarithms.	
This term students may notice the increased need for accuracy in GCSE-level skills, such as algebra and resolving triangles into components using trigonometry, in order to access the A-level questions. Accuracy is a key component of all A-level questions and students should view the “drill” section of the problem set as a vital way to improve in this area.	
Independent study this term: Students will have a weekly problem set comprising of skills questions and 12 problems to complete. Our expectation is that students complete and understand all questions in the problem set so that they gain the most learning from this experience. They should use the hints provided along with support from their teacher, peers, and workshops. This work will be submitted weekly on Teams and teachers will feedback if appropriate.	
Pro-study this term: Most weeks, pro-study will comprise of a problem set test, assessing students’ understanding of the content covered in the last problem set. This should take students around 20 minutes to complete. The remaining time should be spent completing the follow-on work from their last assessment, prioritising the content they struggled with the most. In some weeks, there will be no follow-on work and, instead, students will be asked to retake their last assessment and mark it.	
Next assessment(s): The next assessments are w/c 19/01, w/c 23/02 and w/c 23/03. Students will always receive advance notice of upcoming tests through announcements on teams, so they should make sure they have notifications for that switched on.	
Further links: Workshops MONDAY 11:10 -12:15 (GJB) B204 12:15 – 13:20 (BRM) B204 TUESDAY 11:10 -12:15 (JDH) B204 12:15 – 13:20 (LCH) B204 WEDNESDAY 11:10 -12:15 (HFP) B204	Other reminders: The suggested revision schedule for the transfer exam begins this term. This link is accessible to students.

13:20 – 14:05 (MEH – GCSE ONLY) B214 THURSDAY 11:10 -12:15 (GJJ) B204 14:05 – 15:10 (SJC) B204	
---	--

Maths: Double A-level	Back
This term in double maths students will finish the A-level content. In the “A” half of the course will consider further methods of integration, as well as work on connected rates of change and series. It will also build on the statistics content covered so far, looking at the final type of hypothesis testing. In the “B” half students will finish the final trigonometry topics, consider the theory of functions and proof and look at Moments and projectiles in the mechanics module.	
This term students may notice an increased emphasis on exam technique and longer exam questions used in lessons, which draw components from multiple topics together. As more and more topics become pre-requisite for new learning students must regularly review notes outside of class and ask for help when needed through workshops, email or in person.	
Independent study this term: most weeks independent study will consist of two problem sets (one for each half of the course) and occasionally practice exam papers. Final answers are provided for checking but worked solutions are not. Students should complete and understand all questions in the problem set so that they gain the most from this experience. They should use the support from their teacher, peers, workshops and online resources. This work will be submitted weekly on Teams and teachers will feedback if appropriate.	
Pro-study this term: Mainly self-directed, but some suggestions on sharepoint. Students should use the resources mentioned to address areas of weakness or to practice harder topics. They can also review previous assessments and reattempt these to ensure they understand the content.	
Next assessment(s): The next assessments are the Mid-Year Exams w/c19/01/26. Students will always receive advance notice of upcoming tests through announcements on teams, so they should make sure they have notifications for that switched on.	
Further links: Workshops MONDAY 11:10 -12:15 (GJB) B204 12:15 – 13:20 (BRM) B204 TUESDAY 11:10 -12:15 (JDH) B204 12:15 – 13:20 (LCH) B204 WEDNESDAY	Other reminders:

11:10 -12:15 (HFP) B204 13:20 – 14:05 (MEH – GCSE ONLY) B214 THURSDAY 11:10 -12:15 (GJJ) B204 14:05 – 15:10 (SJC) B204	
--	--

Maths: GCSE	Back
This term we start going through all the GCSE topics at a slower pace, allowing time for students to be reminded of key ideas and plenty of time to practice using exam style questions. We rotate through the key strands of algebra, number, geometry, ratio and statistics so that students can see links between these and regularly revisit the strands.	
This term students may notice that we adopt a “revision year” approach. Students have already been introduced to all the topics at school, so we focus on reminding them of the content and developing exam techniques using these skills.	
Independent study this term: There will be assignments set weekly on MyMaths. Students should log in to complete these and attend a workshop for help if they get stuck.	
Pro-study this term: Complete the independent study described above.	
Next assessment(s): The next assessments will take place – w/c12/01, w/c 09/02, w/c 09/03 and w/c 13/04. Students will always receive advance notice of upcoming tests through announcements on teams, so they should make sure they have notifications for that switched on.	
Further links: Workshops MONDAY 11:10 -12:15 (GJB) B204 12:15 – 13:20 (BRM) B204 TUESDAY 11:10 -12:15 (JDH) B204 12:15 – 13:20 (LCH) B204 WEDNESDAY 11:10 -12:15 (HFP) B204 13:20 – 14:05 (MEH – GCSE ONLY) B214 THURSDAY	Other reminders: Results day for students who sat the November exam is Thursday 8th January 2026

11:10 -12:15 (GJJ) B204 14:05 – 15:10 (SJC) B204	
---	--

Physics	Back
This term we shall be covering familiar topics from GCSE, but extending them to new and interesting levels: - In Theoretical Physics we will build upon basic Wave theory to observe classic behaviours and the effect of interference and then progress to study an introduction to Quantum behaviour, and then on to Particle Physics. - In Applied Physics we will review core DC circuits and then introduce new components and systems. There will be a number of required practicals within these topics.	
This term students may notice that there is increased practical work in lessons and so more of the theory consolidation will need to be done independently. Students will have hopefully adapted to the systems and workload introduced last term, but it is important to maintain good habits and regularly review previous content in parallel to consolidating current topics.	
Independent study this term: Our model of delivery relies on students using the Century application to review and assess their understanding of the material delivered in lessons by completing online ‘nuggets’ of questions. Further question practice is completed with the study guidebooks which are reviewed in class.	
Pro-study this term: The expectation is up to 90 minutes per week. We encourage students to use their time consolidating new material by generating summary notes, flash cards, vocab lists, and practice problem solving. There is a wide selection of question practice linked on the Physics classroom, and they can revisit course content on Century.	
Next assessment(s): - Mid-year progress exam w/c 2nd February covering predominately Waves, Quantum and Materials, but will draw on all term 1 content. - Particles topic test w/c 16th March. - Electric circuits topic test w/c 23rd March.	
Further information: Scheme of Work Workshop Timetable: Thursday R203 drop in Friday R203 YR1 content tutorial workshop. All workshops are at lunchtime; 1.20 - 2.05.	Other reminders: - Opportunity to take part in British Physics Olympiad Senior Challenge online quiz w/c 19th January - Opportunity to take part in British Physics Olympiad Senior Challenge paper Friday 6th March

	Look out for enrichment and outreach activities advertised on SharePoint
--	--

Psychology	Back
This term in Psychology: We will be starting the attachment topic, the moving onto approach's before the Easter break. We will continue to review research methods and will cover the remaining methods. There will be the mid year exam and 2 additional assessments.	
This term students may notice: That they will need to spend time reviewing the current content and prior content that we have already covered. They will be introduced to 16M essay questions. Students should find a peer to work with outside of lessons and should now be spending close to 6hrs on their psychology studies outside of lessons. Students should be regularly reviewing prior content and completing additional exam questions outside of the lessons	
Independent study this term: - 4 to 6 hours each week to include: - Completion of all pro study tasks - Using resources on share point - Reviewing and updating class notes - Creating revision materials of prior content - Reflecting/ acting on assessment feedback - Working with a peer- study buddy - Reviewing previously covered content - Revising for assessments- minimum of 3 hours per 30min assessment (this may not be in one week) - Reviewing lesson PPT's where needed - Watching supporting video clips- e.g. psych boost - Listening to podcasts	
Pro-study this term: - Completion of weekly flipped learning notes - Completion of weekly quiz on teams - Completion of weekly exam question booklets (both writing exam questions then marking and annotating using the mark schemes) - Completion of mind maps	
Next assessment(s): Mid-year in week 20 Assessment 5 on attachment in week 23 Assessment 6 on approaches in week 26	
Further information: Workshop timetable:	Other reminders: Assignments will be set on teams each Monday- these will detail the work for the week, students must read these carefully and complete all tasks fully.

Y1: Tuesday 1:20 – 2pm J101. Study Skills to start, then Year 1 content review. All welcome. Mon- Fri- 1:20-2pm J101/ J102. Rooms are free for peer review / mentoring. -Psych boost for video clips: Psych Boost - YouTube	Students should communicate with their teacher on teams/ email. If a student is absent, they must message to inform their teacher and catch up on the work missed via accessing resources on their teachers one drive. If a teacher is absent, they will set the work for the lesson in teams. Students must work through all the content during their lesson in the classroom unless stated otherwise. All work must be completed for the following lesson. Students should have their working folder and booklets with them for all lessons. Students should access supporting resources on psychology SharePoint: YEAR 1 NEW
---	--