



Science Recovery – Curriculum Outline

Year 7 (3 hours per week) – are covering topics this year based on the previously developed Year 5-8 Science curriculum (please see the 13-week overview). This has been agreed with the Montgomery Transition Group as a rigorous platform for developing both scientific knowledge and skills. Although the same topics are being taught as last year, we have changed the order of teaching so that we are less disadvantaged by the move to teaching bubble year groups and not teaching Year 7 students in science labs. As a consequence, we have pushed the chemistry topics (separation techniques and fast and furious reactions) to the summer term. It is hoped we may be back teaching in the science labs at this time and that important practical activities can take place as normal. Although we have changed the order of topics, we have been careful not to disrupt the building of sequential knowledge. We are starting with a topic on forces followed by particles and both these topics instil important fundamental scientific ideas so that students can use them in future topics throughout the year.

Year 8 (3 hours per week) – includes covering the topics of forces and fast and furious reactions that were both missed during the school lockdown (we are assuming that remote learning was not completed by the majority). Normally they would be covered at the beginning of the year, but because the fast and furious reactions topic has a lot of opportunity for practical activities, it has been moved into the summer term when we hope to be back teaching in the science labs. Forces is not taught first as it is also being taught first in Year 7 and so the sharing of practical equipment potentially becomes a problem across the two bubbles. Due to moving the two Year 7 missed topics into Year 8, two further topics normally taught in Year 8 will be pushed into Year 9 in 2021-2022. These are the energy from food topic and the keeping healthy topic.

Year 9 (4 hours per week) – are starting the year with the topics of energy from food and waves and pressure (we are assuming the remote learning set on these topics was not completed by the majority). These were both missed from Year 8 during lockdown and need to be taught to ensure we cover in its entirety the KS3 national curriculum. After these topics have been taught and assessed, we are going to cover the first 2 topics of the biology, chemistry and physics KS4 curriculum. This will supplement in further depth the KS3 topics covered to date in Years 7, 8 and 9.

Year 10 (6 hours per week across b/c/p) – we are starting with topics missed during lockdown and again assuming that the work set remotely during lockdown was not completed by the majority. In biology (which only had one lesson a week in Year 9), there is slightly more catch up needed than in Chemistry and Physics and this is reflected on the 13-week overview. Biology thus starts with organisation and then bioenergetics. Chemistry starts with a shortened time allocation for chemical changes which is focused on electrolysis and then we will cover the topic of energy changes in full. Physics begins with the full-time allocation given to the topic of Electricity which is a key topic within the Physics specification on Paper 1. This planning will ensure that Year 10 students are fully prepared for their Paper 1 mock exams in May 2021.

Year 11 (6 hours per week across b/c/p) – are similar to Year 10 in that we are beginning with topics missed during the lockdown period. The separate sciences are allocated more time per topic to account for the extra content they need to cover but both separate science classes and combined science classes will start with the same topics. In biology, we are starting with inheritance, variation and evolution and in chemistry, we are starting with organic chemistry. Finally, in Physics, we are starting with atomic structure and radiation before moving onto magnetism and electromagnetism and then space. The plan throughout is to complete the teaching of the outstanding Paper 2 topics whilst preparing students for their Paper 1 mock exams in December. A Paper 2 mock will take place in the week before Easter which is later than normal and then we will revise synoptically for the summer exam season.