

Physics and Key Stage 3 Science Work During School Closure

General Science

The aim of work set, for Years 7 and 8, in Science is simple. Whilst we are unable to do practical work, we attempt to get a little ahead with the theoretical side of the subject. (We do have access to some virtual experiments and so we will aim to include some tasks that enable the students to practise the processes of planning investigations, collecting data, plotting and analysing graphs, drawing conclusions and evaluating data.) Because of the lack of real experimental tasks, work is generally set weekly at a slightly quicker pace than the theory might have been covered at school. Without the inclusion of real-life experiments, this is quite a realistic approach. The work will be set using work sheets, on-line sources such as Seneca Learning and Focus Education and other resources that are provided by us. Often the work will be in a format that allows the students to submit their work back to their teacher. There will be plenty of opportunities for students to demonstrate their progress and understanding. The topics that have been set will be revisited and reviewed once we return to the school premises, often through the medium of practical work. The topics covered now are the same as those that would have been if we were still in school.

Years 9 and 10

Work is set on a weekly basis, ideally at the time of the lesson so that the students get two lessons of work per week to match the two lessons they have on their normal timetables. We are following the main topics that we would be doing at this time of year and are also looking for opportunities to introduce topic areas that lend themselves more to independent study. Activities take a range of forms, from basic note taking and questions from the online Kerboodle textbook, to interactive tasks sets via Google Classroom and we also have access to several interactive platforms such as Seneca Learning, Kerboodle, Focus Education and Isaac Physics. We have also asked students to keep a photo diary of their best book work which is a Google assigned document onto which they can upload photos of their book work for their teacher to see. We do have access to some virtual experiments and so we will aim to include some tasks that enable the students to practise the processes of planning investigations, collecting data, plotting and analysing graphs, drawing conclusions and evaluating data. All necessary practical work and all GCSE required practicals will be carried out in full when we return to school.

Year 12

Work is set on a weekly basis, ideally at the time of the lesson so that the students get four lessons of work per week (two from each of their teachers) to match the four lessons they have on their normal timetables. In addition, we are setting on ongoing research task to cover some of the big ideas covered in the Energy and the Environment option topic in Component 3 and we hope that this helps students to develop some further independent research skills whilst also developing a deeper understanding of some specific physics. We are following the main topics that we would be doing at this time of year and are also looking for opportunities to introduce topic areas that lend themselves more to independent study. Activities take a range of forms, from taking basic notes on each concept using a variety of books and online resources to interactive tasks sets via Google Classroom and we also have access to several interactive platforms such as Seneca Learning, Focus Education and Isaac Physics. Work will regularly include use of past paper exam questions to help develop and test understanding. Video work, often via the Khan Academy videos on YouTube are also a regular feature. We have also asked students to keep a photo diary of their best book work which is a Google assigned document onto which they can upload photos of their book work for their teacher to see.

We do have access to some virtual experiments and so we will aim to include some tasks that enable the students to practise the processes of planning investigations, collecting data, plotting and analysing graphs, drawing conclusions and evaluating data. All necessary practical work and all A level required practicals will be carried out in full when we return to school.