**SCIENCE REMOTE WORKING 2020-21: TERM 4**

If you are absent from school, for example because you are self-isolating, you should aim to complete the tasks below in each week in addition to the home learning activities posted on Class Charts.

**YEAR 7**

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| **Week Commencing** | **Activities** |
| Thurs 11th March | Open the link for oak academy which is below: Put the title for the lesson as ‘**energy in food**’. This lesson explores the energy in different foods and revises key ideas about how to run a successful investigation including: identifying variables, making predictions, writing a method, analysing results and writing a conclusion.  There is a lesson for you to watch, reviewing what you know about energy in different foods. Please watch the lesson, making appropriate notes when you are asked to. There is a quiz to complete – please write out the questions and answers into your exercise book.  LINK FOR LESSON: <https://classroom.thenational.academy/lessons/energy-in-food-c4wk0t>  **Challenge yourself**: Watch the video on EXPLODING CUSTARD and explain why it releases so much energy. <https://www.youtube.com/watch?v=aGBT5pwxThU> |
| 15/03/21 | Open the link for oak academy which is below. Put title of the lesson **‘non –renewable energy resources’** into your exercise book. This lesson describes how fossil fuels are formed and the advantages and disadvantages of using these non-renewable energy resources.  There is a lesson for you to watch, reviewing what you know about fossil fuels. Please watch the lesson, making appropriate notes when you are asked to. There is a quiz to complete at the end of the lesson which will show you how well you have learned the positive and negative effects of fossil fuels. Write out the questions and the answers into your exercise book.  LINK FOR LESSON: <https://classroom.thenational.academy/lessons/non-renewable-energy-resources-70u68t>  **Challenge yourself**: Read the article ‘Humanity has 8 years to get climate control under control’ and watch the video where Joe Biden and Donal Trump debate the use of fossil fuels. Who supports the use of fossil fuels and what are his reasons? Do you agree or disagree and why?  https://www.theguardian.com/us-news/2020/oct/23/joe-biden-transition-from-oil-industry-rowing-back |
| 22/03/21 | Open the link for oak academy which is below. Put the title of the lesson ‘**renewable energy**’. This lesson describes different renewable energy resources and the advantages and disadvantages of renewable energy resources.  There is a lesson for you to watch, reviewing what you know about renewable energy sources (wind, water and tidal energy).  Please watch the lesson, making appropriate notes when you are asked to and complete the worksheet into your exercise book. There is a quiz to complete at the end of the lesson which will see how much you can describe renewable energy resources and evaluate their positives and negatives.  LINK FOR LESSON: <https://classroom.thenational.academy/lessons/renewable-energy-resources-chj3ar>  **Challenge Yourself:** The windmill in Green Park in Reading is one of the worst for energy production in the UK. Follow the link and in your book explain why.  <https://www.getreading.co.uk/news/local-news/no-wind-sails-green-park-4219197> |
| 29/03/21 | Open the link for oak academy which is below on power and energy. Put the title in to your exercise book ‘**Power and Energy**’.There is a lesson for you to watch, reviewing what you know about energy so far and developing the idea that the transfer of energy in a period of time is called POWER. This lesson introduces power and its relationship to energy. It provides lots of opportunities to practice calculations and conversions.  A calculator will be useful for this lesson. Please watch the lesson, making appropriate notes when you are asked to and complete the worksheets linked to the lesson. There is a quiz at the end for you to complete which will show how well you have learned the idea of what power is.  LINK FOR THE LESSON https://classroom.thenational.academy/lessons/power-and-energy-chh6ar  **Challenge yourself:** Watch the video on the most powerful machines. For each machine what is the energy change (e.g chemical to kinetic).  <https://www.youtube.com/watch?v=lKqGZYF1bd4> |

**YEAR 8**

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| **Week Commencing** | **Activities** |
| Thurs 11th March | Open up the link for oak academy – magnestism review. There is a lesson for you to watch, reviewing what you know about magnetism. Please watch the lesson, making appropriate notes when you are asked to. At the end of the lesson please complete the quiz to assess your learning. Then complete the revision poster.  <https://classroom.thenational.academy/lessons/magnetism-review-cnj3jd> |
| 15/03/21 | Open the respiration PowerPoint and work through the slides following the instructions. Make sure you make notes in your books. You need to remember the equation for respiration. Answer all the questions within the PowerPoint, self-assessing your work as you go. |
| 22/03/21 | Open the photosynthesis PowerPoint and work through the slides following the instructions. Make sure you make notes in your books. You need to remember the equation for photosynthesis. Once you have worked through the PowerPoint have a go at completing the worksheet. |
| 29/03/21 | Open up the link for oak academy – rate of photosynthesis. There is a lesson for you to watch on how we can measure the rate of photosynthesis. Please watch the lesson, making appropriate notes when you are asked to. Make sure you complete the worksheet and the quiz as well.  <https://classroom.thenational.academy/lessons/rate-of-photosynthesis-6tk66t> |

**YEAR 9 Biology**

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| **Week Commencing** | **Activities** |
| Thurs 11th March | (1 lesson)  Coronary heart disease treatments C19  Open the PowerPoint and work through the slides following the instructions. Watch the videos and read through the information on the slides. Complete the quick questions and summary questions in your books and then self-assess them using the mark schemes.  **If you are ahead with this topic section and have covered coronary heart disease and treatments, then you can have a look at the Heart dissection lesson. Follow the instructions on the PowerPoint.** |
| 15/03/21 | B4.5 Breathing and gas exchange C19  Open the PowerPoint and work through the slides following the instructions. Watch the videos and read through the information on the slides. Complete the leaflet task on paper or in your book and summary questions in your books. Self-assess using the mark scheme.  *Alternative lesson:*  *Open the link for oak academy – Lesson: The Lungs*  *There is a lesson for you to watch on the Lungs. Please watch the lesson, making appropriate notes when you are asked to. At the end of the lesson please complete the quiz to assess your learning. Then complete the worksheet on the lungs.* [*https://classroom.thenational.academy/lessons/the-lungs-ccu3ge*](https://classroom.thenational.academy/lessons/the-lungs-ccu3ge) |
| 22/03/21 | B4.6 Plant tissues and organs C19  Open the PowerPoint and work through the slides, following the instructions. If you can, print out the knowledge organiser first on slide 4. Complete the knowledge organiser memory task then answer the questions on slide 5 in your books. Watch the videos about the structure of plant tissue and organs. OPTIONAL: As a grown up first and have a go at the celery practical.  Finally, answer the summary questions and self-assess using the mark scheme.  *Alternative lesson:*  *Open the link for oak academy – Lesson: PLant tissue*  *There is a lesson for you to watch on the plant tissue. Please watch the lesson, making appropriate notes when you are asked to. At the end of the lesson please complete the quiz to assess your learning. Then complete the worksheet on the plant tissue.* <https://classroom.thenational.academy/lessons/plant-tissue-cnh32t> |
| 29/03/21 | Transport systems in plants C19  Open the PowerPoint and work through the slides following the instructions. Sketch the xylem and phloem vessels and label them. Watch the videos and read through the information on the next slides. Complete the summary questions in your books and then self-assess them using the mark schemes. Lastly, complete the table comparing the main differences between xylem and phloem vessels.  *Alternative lesson:*  *Open the link for oak academy – Lesson: Transport in plants*  *There is a lesson for you to watch on the Transport in plants. Please watch the lesson, making appropriate notes when you are asked to. At the end of the lesson please complete the quiz to assess your learning. Then complete the worksheet on the transport in plants.* <https://classroom.thenational.academy/lessons/transport-in-plants-6rr38c> |

**YEAR 9 Chemistry**

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| **Week Commencing** | **Activities** |
| Thurs 11th March | Open up the link for oak academy - exothermic and endothermic reactions  There is a video for you to watch on exothermic and endothermic reaction. Please then work your way through the power point which has different tasks for you to complete. At the end of the lesson please complete the quiz to assess your learning  **https://classroom.thenational.academy/lessons/exothermic-and-endothermic-reactions-cgw32t** |
| 15/03/21 | Open up the link for oak academy - required practical (temp. Change) part 1  There is a video for you to watch on the required practical part 1. Please then work your way through the power point which has different tasks for you to complete. At the end of the lesson please complete the quiz to assess your learning  **https://classroom.thenational.academy/lessons/required-practical-temperature-change-part-1-6tgp8c** |
| 22/03/21 | Open up the link for oak academy – required practical (temp change) part 2  There is a video for you to watch on the required practical part 2. Please then work your way through the power point which has different tasks for you to complete. At the end of the lesson please complete the quiz to assess your learning  **https://classroom.thenational.academy/lessons/required-practical-temperature-change-part-2-ccwkjt** |
| 29/03/21 | Open up the link for oak academy - energy profile diagrams  There is a video for you to watch on energy profile diagrams. Please then work your way through the power point which has different tasks for you to complete. At the end of the lesson please complete the quiz to assess your learning  **https://classroom.thenational.academy/lessons/energy-level-diagrams-cgv68e** |

**YEAR 9 Physics**

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| **Week Commencing** | **Activities** |
| Thurs 11th March | Open up the link for oak academy – Lesson 14 Review of electrical circuits.  There is a lesson for you to watch on electrical circuits. Please watch the lesson, making appropriate notes when you are asked to. At the end of the lesson please complete the quiz to assess your learning. Then complete the worksheet on electrical circuits. <https://classroom.thenational.academy/lessons/review-of-electrical-circuits-6gv3gc> |
| 15/03/21 | Open up the link for oak academy – Lesson 15 Domestic electricity.  There is a lesson for you to watch on domestic electricity. Please watch the lesson, making appropriate notes when you are asked to. At the end of the lesson please complete the quiz to assess your learning. Then complete the worksheet on domestic electricity. <https://classroom.thenational.academy/lessons/domestic-electricity-c4rp8t?activity=video&step=1> |
| 22/03/21 | Open up the link for oak academy – Lesson 16 Electrical power (part 1).  There is a lesson for you to watch on electrical power. Please watch the lesson, making appropriate notes when you are asked to. At the end of the lesson please complete the quiz to assess your learning. Then complete the worksheet on electrical power. <https://classroom.thenational.academy/lessons/electrical-power-part-1-6hjk6r?activity=video&step=1> |
| 29/03/21 | Open up the link for oak academy – Lesson 17 Electrical power (part 2).  There is a lesson for you to watch on electrical power. Please watch the lesson, making appropriate notes when you are asked to. At the end of the lesson please complete the quiz to assess your learning. Then complete the worksheet on energy transfer. <https://classroom.thenational.academy/lessons/electrical-power-part-2-cgvkjc?activity=video&step=1> |