**Year 7 Science ‘at home learning’ resource**

**Task: Aim to complete one activity a day to help support and further your revision and subject knowledge.**

**Key Topics to revise:** Electricity, General Science Skills & Knowledge

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| What is meant by electrical current?  How can you measure current in a circuit? | Who was Alessandro Volta and what did he discover? | Draw the symbols for these circuit components: bulb, cell, switch, voltmeter, ammeter, motor, resistor. | What is static charge? How does it build up? | Write a method on how we can investigate static charge. | What is the difference between a series and parallel circuit?  Why do we wire houses in parallel and not series? | Draw a circuit diagram for a series circuit with 2 bulbs.  Draw a parallel circuit with 2 bulbs.  In which circuit would the bulbs be brighter? Why? | How do we measure potential difference? What is potential difference? |
| What is the difference between an electrical conductor and an electrical insulator?  How could we test materials to see if they are conductors? | Describe how you can use fruit to demonstrate how a battery work. | Explain why metals are good conductors of electricity. | What are renewable and non renewable fuels?  What are the advantages and disadvantages of each? | Research how the UK generates electricity for homes. | Imagine there was no more electricity.  What would life be like?  Write a short story about ‘the day electricity stopped’. | Electricity was first introduced in the UK in the 1880’s.  Imagine you were around when it was first introduced and write a diary entry for that day. | Research what Nikoli Tesla did with reference to modern day electricity. |
| Are you a budding bird watcher?  Visit the link below to get some ideas about what birds may be in the area  <https://www.rspb.org.uk/get-involved/activities/> | Visit here for daily lessons and science quizzes to keep your brain active  <https://www.bbc.co.uk/bitesize> | Check out the channel below on youtube for lots of interesting science videos. Find ones on topics you have studied and make revision resources.  <https://www.youtube.com/user/crashcourse> | Choose a favourite scientist and research what their contribution to science is. | Visit <https://www.bbc.co.uk/news/science_and_environment>  And rewrite one of the stories as a 140 character tweet. | Learnt the periodic table of the elements song  <https://www.youtube.com/watch?v=U2cfju6GTNs> | Find two models for describing how electricyt moves around a circuit.  What is good about these models? What is bad about them?  Why do we use models in science? | Watch a science documentary on BBC iPlayer and write a review on it.  What was good? What did you learn? What could make it better? |