



Week	Learning	Activities
Week beginning 1 st June	<p><u>Density</u></p> <p>In this lesson we will introduce the topic of density and how this varies for different materials and different states of materials. We will define the key terms, introduce the equation to calculate density and then practise their use.</p>	<p>https://www.thenational.academy/year-9/science/density-year-9-wk3-1</p> <p>Follow the instructions and guidance to watch the video and work through the tasks.</p>
	<p><u>Changing state</u></p> <p>In this lesson we will review knowledge of the particle model then apply this to understanding the changes of state that occur for matter. We will investigate the idea of conservation of mass, physical versus chemical changes and compare the effects of adding energy to the system during heating.</p>	<p>https://www.thenational.academy/year-9/science/changing-state-year-9-wk3-3</p> <p>Follow the instructions and guidance to watch the video and work through the tasks.</p>
	<p><u>Density and changing state: Progress check</u></p>	<p>Follow the instructions to complete the progress check assigned by your teacher on Teams</p> <p>Submit your answers and you will be given feedback to help with your progress in this topic.</p>
Week beginning 8 th June	<p><u>Atoms, elements and compounds</u></p> <p>In this activity you are going to explore the ideas behind the modern structure of the atom, learn how to find elements on the</p>	<p>https://www.thenational.academy/year-9/science/atoms-elements-and-compounds-year-9-wk2-1</p>



	<p>periodic table and how to classify a substance as an element, compound or a mixture</p>	<p>Follow the instructions and guidance to watch the video and work through the tasks.</p>
	<p><u>History of the Atom</u></p> <p>In this activity you are going to explore the history and development of the model of the atom, from indivisible spheres through to the modern model as currently accepted. You will learn about key discoveries during this journey and how the evidence led to updates to models.</p>	<p>https://www.thenational.academy/year-9/science/history-of-the-atom-year-9-wk2-3</p> <p>Follow the instructions and guidance to watch the video and work through the tasks.</p>
	<p><u>Educake assignment</u></p>	<p>Your teacher will be reviewing this assignment to check your understanding on the tasks covered this week</p>
<p>Week beginning 15th June</p>	<p><u>Isotopes</u></p> <p>In this lesson we are going to explore the nuclear model of the atom and learn what an isotope is and how we can identify isotopes.</p>	<p>https://www.thenational.academy/year-9/science/isotopes-year-9-wk2-4</p> <p>Follow the instructions and guidance to watch the video and work through the tasks.</p>
	<p><u>Electron configuration</u></p> <p>In this lesson we will be exploring the arrangement of electrons in atoms. We will be focussing specifically on the first two elements and learn how to both draw the structure and write it in the standard naming format.</p>	<p>https://www.thenational.academy/year-9/science/electron-configuration-year-9-wk5-1</p> <p>Follow the instructions and guidance to watch the video and work through the tasks.</p>
	<p><u>Atomic structure:</u> <u>Progress check</u></p>	<p>Follow the instructions to complete the progress check assigned by your teacher on Teams</p>



		Submit your answers and you will be given feedback to help with your progress in this topic.
Week beginning 22 nd June	<p><u>Periodic Table trends</u></p> <p>In this lesson we will be exploring the arrangement of the modern periodic table into groups and rows. We will explore the idea of how this arrangement relates to properties of atoms and reactions that are likely to occur between elements. table trends</p>	<p>https://www.thenational.academy/year-9/science/periodic-table-trends-year-9-wk5-2</p> <p>Follow the instructions and guidance to watch the video and work through the tasks.</p>
	<p><u>History of the periodic table</u></p> <p>The periodic table was not always constructed in the way we recognise it today. In this lesson we will be exploring how scientists came to represent the periodic table as it now is by looking at key developmental steps and the scientists involved.</p>	<p>https://www.thenational.academy/year-9/science/history-of-the-periodic-table-year-9-wk5-3</p> <p>Follow the instructions and guidance to watch the video and work through the tasks.</p>
	<p><u>Educake assignment</u></p>	<p>Your teacher will be reviewing this assignment to check your understanding on the tasks covered this week</p>
Week beginning 29 th June	<p><u>Aerobic respiration</u></p> <p>In this lesson we will be looking at the chemical process of respiration, and the importance of different organ systems in supporting this reaction.</p>	<p>https://www.thenational.academy/year-10/science/aerobic-respiration-year-10-wk4-1</p> <p>Follow the instructions and guidance to watch the video and work through the tasks.</p>



	<p><u>Anaerobic respiration</u></p> <p>In this lesson we will be looking at what happens in muscles when animals exercise, and what happens when plants, bacteria and yeast respire with limited or no oxygen.</p>	<p>https://www.thenational.academy/year-10/science/anaerobic-respiration-year-10-wk4-2</p> <p>Follow the instructions and guidance to watch the video and work through the tasks.</p>
	<p><u>Investigation:</u> <u>Exercise and heart rate</u></p>	<p>Follow the instructions to complete the investigation into heart rate and exercise set to you on teams.</p> <p>If you cannot complete the investigation, there is an alternative lesson available.</p> <p>Submit your results to your teacher on teams.</p>
<p>Week beginning 6th July</p>	<p><u>Exercise and metabolism</u></p> <p>In this lesson we will be looking at how the body responds to exercise, both long and short term, and what metabolism is.</p>	<p>https://www.thenational.academy/year-10/science/exercise-and-metabolism-year-10-wk4-3</p> <p>Follow the instructions and guidance to watch the video and work through the tasks.</p>
	<p><u>Working Scientifically: Command words</u></p> <p>In this lesson we will look at different data sets and analyse them. We will focus on different command words and practise what is</p>	<p>https://www.thenational.academy/year-10/science/working-scientifically-command-words-year-10-wk4-5</p>



	<p>expected when being asked to describe, explain, compare or evaluate data</p>	<p>Follow the instructions and guidance to watch the video and work through the tasks.</p>
	<p><u>Educake assignment</u></p>	<p>Your teacher will be reviewing this assignment to check your understanding on the tasks covered this week</p>
<p>Week beginning 13th July</p>	<p><u>Working Scientifically – Variables</u></p> <p>In this lesson we will focus on the three types of variables we use in investigations, why we use these and practise identifying them.</p>	<p>https://www.thenational.academy/year-10/science/working-scientifically-variables-year-10-wk1-5</p> <p>Follow the instructions and guidance to watch the video and work through the tasks.</p>
	<p><u>Working scientifically – maths skills: significant figures, mean and standard form</u></p> <p>In this lesson you will learn/practice some maths skills for science. This will include mean calculations, including checking for anomalies, as well as significant figures and standard form.</p>	<p>https://www.thenational.academy/year-10/science/working-scientifically-maths-skills-significant-figures-mean-and-standard-form-year-10-wk2-5</p> <p>Follow the instructions and guidance to watch the video and work through the tasks.</p>
	<p><u>Educake assignment</u></p>	<p>Your teacher will be reviewing this assignment to check your understanding on the tasks covered this week</p>

