

## Science work – Year 9

The tasks to work through each week from your CGP guide and workbook from June 15<sup>th</sup> until the end of the summer term are given below. You will also have a short Educake test and additional online resources to help you will be available via the science home learning page on the academy website. The additional resources will be updated frequently.

**Groups: 9SSAngelou / 9SSBoyle / 9SSCurie / 9SNAngelou / 9SNBoyle / 9SNCurie**

Week	Topic	CGP Guide pages	Workbook pages	Additional resources
15/6/20	P4 Atomic structure -Atoms and equations	p.195-197	p.204-208	<a href="#">Alpha Decay</a> <a href="#">Beta Decay</a> <a href="#">Radioactive Decay Video</a>
	<b>Task Instructions:</b> <ol style="list-style-type: none"> <li>1. Explain how the model of the atom has developed and explain the atomic model.</li> <li>2. Explain what isotopes are and compare the 3 main types of nuclear radiation.</li> <li>3. Complete the workbook questions. Practice the nuclear equations on page 197 and workbook questions.</li> </ol>			
22/06/20	P4 Atomic structure – Half-life	p.198-199	p.209-211	<a href="#">Half Life</a> <a href="#">Half Life Video</a>
	<b>Task Instructions:</b> <ol style="list-style-type: none"> <li>1. Summarise page 198 and practice the examples.</li> <li>2. Practice plotting a sketch graph on paper of the example on page 198 and complete the workbook questions.</li> <li>3. Produce a safety poster on irradiation and contamination (p199) and explain how we can protect ourselves.</li> </ol>			
29/06/20	C4 Chemical change – solutions, acids and bases	p.128-129	p.130-131	<a href="https://www.youtube.com/watch?v= gYBzqgrmE">https://www.youtube.com/watch?v= gYBzqgrmE</a>
	<b>Task Instructions:</b> <ol style="list-style-type: none"> <li>1. Define concentration and complete the practice examples on page 128.</li> <li>2. State and memorise the formula for concentration</li> <li>3. Explain what the difference is between an acid and base and how they interact to neutralise each other.</li> <li>4. Complete the workbook questions.</li> </ol>			
6/07/20	C4 Chemical change reactions with acids and reactivity series	p.130-131	p.132-134	<a href="https://phet.colorado.edu/sims/html/concentration/latest/concentration_en.html">https://phet.colorado.edu/sims/html/concentration/latest/concentration_en.html</a>
	<b>Task Instructions:</b> <ol style="list-style-type: none"> <li>1. Explain the difference between a strong acid and high concentration.</li> <li>2. Explain what pH is.</li> <li>3. Give the general equations for reactions with acids on page 131.</li> <li>4. Give lots of examples of reactions with acids for practice with both the word and symbol equation.</li> <li>5. Complete workbook questions.</li> </ol>			
13/07/20	C4 Reactivity series, separating metals, redox and electrolysis	p.132-136	p.134-138	
	<b>Task Instructions:</b> <ol style="list-style-type: none"> <li>1. List the reactivity series regarding metal reactivity.</li> <li>2. Explain and give examples of a redox reactions.</li> <li>3. Draw a diagram of electrolysis giving annotated explanations of how it works.</li> <li>4. Include an example, complete workbook questions if this is complete.</li> </ol>			

**Groups: 9NSDahl, 9NSEuclid, 9NSFermat, 9SSDahl, 9SSEuclid, 9SSGolding**

Week	Topic	CGP Guide pages	Workbook pages	
15/6/20	P4 Atomic structure - Atoms and equations	p.197-198	p.177-178	<a href="#">Alpha Decay</a> <a href="#">Beta Decay</a> <a href="#">Radioactive Decay Video</a>
	<b>Task Instructions:</b> <ol style="list-style-type: none"> <li>1. Explain and draw a diagram of the current model of the atom.</li> <li>2. Explain what isotopes are and compare the 3 main types of nuclear radiation.</li> <li>3. Complete the workbook questions.</li> <li>4. Practice the nuclear equations on page 199 and workbook questions.</li> </ol>			
22/06/20	P4 Atomic structure – Half-life	p.199-201	p.179-181	<a href="#">Half Life</a> <a href="#">Half Life Video</a>
	<b>Task Instructions:</b> <ol style="list-style-type: none"> <li>1. Summarise page 200 and practice the examples.</li> <li>2. Practice plotting a sketch graph on paper of the example on page 200 and complete the workbook questions.</li> <li>3. Produce a safety poster on irradiation and contamination (p201) and explain how we can protect ourselves.</li> </ol>			
29/06/20	C4 Chemical change – solutions, acids and bases	p.128-129	p.112-113	<a href="https://www.bbc.co.uk/bitesize/topics/zt6ppbk">https://www.bbc.co.uk/bitesize/topics/zt6ppbk</a>
	<b>Task Instructions:</b> <ol style="list-style-type: none"> <li>1. Define concentration and complete the practice examples on page 129.</li> <li>2. State and memorise the formula for concentration</li> <li>3. Explain what the difference is between an acid and base and how they interact to neutralise each other.</li> <li>4. Complete the workbook questions.</li> </ol>			
6/07/20	C4 Chemical change reactions with acids and reactivity series	p.130-131	p.115-116	<a href="https://www.bbc.co.uk/bitesize/topics/zt6ppbk">https://www.bbc.co.uk/bitesize/topics/zt6ppbk</a>
	<b>Task Instructions:</b> <ol style="list-style-type: none"> <li>1. Explain the difference between a strong acid and high concentration.</li> <li>2. Explain what pH is. Give the general equations for reactions with acids on page 131.</li> <li>3. Give lots of examples of reactions with acids for practice with both the word and symbol equation.</li> <li>4. Complete workbook questions.</li> </ol>			
13/07/20	C4 Reactivity series, separating metals, redox and electrolysis	p.132-133	p.117	<a href="https://www.bbc.co.uk/bitesize/guides/z9h9v9q/video">https://www.bbc.co.uk/bitesize/guides/z9h9v9q/video</a>
	<b>Task Instructions:</b> <ol style="list-style-type: none"> <li>1. List the reactivity series regarding metal reactivity.</li> <li>2. Explain and give examples of a redox reactions.</li> <li>3. Draw a diagram of electrolysis giving annotated explanations of how it works.</li> <li>4. Include an example, complete workbook questions if this is complete.</li> </ol>			