



## Year 9 – Biology – Infection and Response – Summer Term 1 – KNOWLEDGE OVERVIEW

Year group:		Unit:		Resources	
Week beginning:	Big question / concept:	Learning intentions:	Resources		
			Offline: <a href="S:\CURRICULUM\Science\Blended Learning\Home Learning packs\Year 9\Separate Science\Biology4.3">S:\CURRICULUM\Science\Blended Learning\Home Learning packs\Year 9\Separate Science\Biology4.3</a>	Online including links on how to access these:	
12 <sup>th</sup> April 2021	What are communicable diseases caused by?	<p><b><u>You should be able to:</u></b></p> <p><b>Define</b> the term pathogen and state the four main groups of pathogen.</p> <p><b>Explain</b> how pathogens can be spread to plants or animals and cause infection.</p> <p><b>Describe</b> the main differences between bacteria and viruses.</p> <p><b>Explain</b> how the spread of disease can be reduced or prevented.</p>	Read and make notes on page 4 of the infection and response pack.	<p><b>Lesson on Infectious disease</b>  <a href="https://classroom.thenational.academy/lessons/infectious-disease-6wu3ce">https://classroom.thenational.academy/lessons/infectious-disease-6wu3ce</a></p> <p>AND</p> <p><b>GCSEpod video on viral and bacterial disease</b>  <a href="https://members.GCSEpod.com/shared/podcasts/chapter/66086">https://members.GCSEpod.com/shared/podcasts/chapter/66086</a></p>	
19 <sup>th</sup> April 2021	What are communicable diseases caused by?	<p><b>Describe</b> the <b>symptoms, mode of transmission, prevention</b> and treatment for measles, HIV and AIDS, <b>salmonella</b> and <b>gonorrhoea</b>.</p> <p><b>Describe</b> colds and flu as viral diseases.</p>	<p>Read and make notes on page 9 of the infection and response pack</p> <p>Read and make notes on page 7 of the infection and response pack.</p>	<p><b>Lesson on viral and bacterial disease</b>  <a href="https://classroom.thenational.academy/lessons/viral-and-bacterial-disease-68v3at">https://classroom.thenational.academy/lessons/viral-and-bacterial-disease-68v3at</a></p> <p>Exam Question on Salmonella  <a href="https://iayeut.exampro.net/">https://iayeut.exampro.net/</a></p>	

	What are communicable diseases caused by?	<b>Describe</b> Tobacco Mosaic Virus as a fungal disease.	Complete the questions on pages 13-16 Self-assess using pages 17-19	<b>Lesson on fungal disease</b> <a href="https://classroom.thenational.academy/lessons/fungal-and-protist-disease-6xk3qt">https://classroom.thenational.academy/lessons/fungal-and-protist-disease-6xk3qt</a>
26 <sup>th</sup> April 2021	How does the body defend itself against disease?	<b><u>You should be able to:</u></b>  <b>Describe</b> the body's first line defences.  <b>Explain</b> how <b>microbes</b> make us feel ill and how viruses damage cells.	Read and make notes on page 22 of the infection and response pack  Read and make notes on page 23 of the infection and response pack	<b>GSCEPOD video on defences.</b> <a href="https://members.GCSEpod.com/shared/podcasts/chapter/66078">https://members.GCSEpod.com/shared/podcasts/chapter/66078</a>  Explain how the body protects itself against disease
3rd May 2021	How does the body defend itself against disease?	<b>Explain</b> how the immune system defends against disease.  <b>Describe</b> what white blood cells do.  <b>Explain</b> why <b>antibodies</b> are specific for one <b>pathogen/antigen</b>	Read and make notes on page 23 of the infection and response pack  Answer the question on page 25. Self-assess using page 26	<b>Lesson on immunity</b> <a href="https://classroom.thenational.academy/lessons/immunity-cn3ad">https://classroom.thenational.academy/lessons/immunity-cn3ad</a>  AND <b>GSCEPOD video on Immunity</b> <a href="https://members.GCSEpod.com/shared/podcasts/chapter/66081">https://members.GCSEpod.com/shared/podcasts/chapter/66081</a>  Exam question on white blood cells <a href="https://fieeuyh.exampno.net/">https://fieeuyh.exampno.net/</a>

	How does the body defend itself against disease?	<p><b>Describe</b> how vaccines work</p>	<p>Read and make notes on page 27-28 of the infection and response pack</p> <p>Answer the question on pages 29-32</p> <p>Self-assess using pages 33-34</p>	<p><b>Lesson on vaccines</b>  <a href="https://classroom.thenational.academy/lessons/vaccines-70u6cc">https://classroom.thenational.academy/lessons/vaccines-70u6cc</a></p> <p>AND</p> <p><b>GSCEPOD video on vaccines</b>  <a href="https://members.GCSEpod.com/shared/podcasts/chapter/66087">https://members.GCSEpod.com/shared/podcasts/chapter/66087</a></p> <p>Exam Question on vaccines  <a href="https://hodedyh.exampro.net/">https://hodedyh.exampro.net/</a></p>
10 <sup>th</sup> and 17 <sup>th</sup> May 2021	How does antibiotics work?	<p><b><u>You should be able to:</u></b></p> <p><b>Explain</b> the difference between painkillers and antibiotics.</p> <p><b>State</b> which drugs come from plants and microorganisms.</p>	<p>Read and make notes on page 36-38 of the infection and response pack.</p> <p>Answer the question on page 39-42.</p> <p>Self-assess using pages 43-45</p>	<p><b>Lesson on antibiotics</b>  <a href="https://classroom.thenational.academy/lessons/antibiotics-6qv62c">https://classroom.thenational.academy/lessons/antibiotics-6qv62c</a></p>
	How are drugs trialed	<p><b>Explain</b> why drugs need to be tested before they can be prescribed.</p> <p><b>Describe</b> the main steps in the development and testing of a new drug.</p> <p>Give reasons for the different stages in drug testing.</p> <p>Explain the terms placebo and double-blind trial.</p>	<p>Read and make notes on page 48-51 of the infection and response pack.</p> <p>Answer the question on page 52-53.</p> <p>Self-assess using page 54</p>	<p><b>2 lessons on Drug Testing</b>  <a href="https://classroom.thenational.academy/lessons/testing-drugs-part-1-6wwker">https://classroom.thenational.academy/lessons/testing-drugs-part-1-6wwker</a></p> <p><a href="https://classroom.thenational.academy/lessons/testing-drugs-part-2-60r32c">https://classroom.thenational.academy/lessons/testing-drugs-part-2-60r32c</a></p> <p>Exam question on drug testing  <a href="https://tujucal.exampro.net/">https://tujucal.exampro.net/</a></p>

24 <sup>th</sup> May 2021	What are monoclonal antibodies?	<p><b>Describe</b> monoclonal antibodies</p> <p><b>Describe</b> how monoclonal antibodies are produced</p> <p><b>Describe</b> the uses of monoclonal antibodies</p> <p><b>Evaluate</b> the research on monoclonal antibodies</p>	<p>Read and make notes on pages 57-60 of the infection and response pack.</p> <p>Answer the question on pages 61-64.</p> <p>Self-assess using page 65-66</p>	<p>Lesson on monoclonal antibodies</p> <p><a href="https://classroom.thenational.academy/lessons/monoclonal-antibodies-6djp2t">https://classroom.thenational.academy/lessons/monoclonal-antibodies-6djp2t</a></p>
24 <sup>th</sup> May 2021	What do plant disease look like?	<p><b>Describe</b> visual indications of plant disease</p> <p><b>Describe</b> methods that gardeners and scientists can use to identify the disease causing pathogen</p> <p><b>Describe</b> the physical and chemical ways plants can resist microorganisms.</p> <p><b>Describe</b> mechanical adaptations to deter animals.</p>	<p>Read and make notes on pages 69-72 of the infection and response pack.</p> <p>Answer the question on page 73.</p> <p>Self-assess using page 74</p>	<p>Lesson on Plant diseases and deficiencies</p> <p>Part 1</p> <p><a href="https://classroom.thenational.academy/lessons/plant-diseases-and-deficiencies-part-1-61jpcd">https://classroom.thenational.academy/lessons/plant-diseases-and-deficiencies-part-1-61jpcd</a></p> <p>Part 2</p> <p><a href="https://classroom.thenational.academy/lessons/plant-diseases-and-deficiencies-part-2-cnjp6r">https://classroom.thenational.academy/lessons/plant-diseases-and-deficiencies-part-2-cnjp6r</a></p>