

**Barnsley Academy – (Year 8 Science 8PL) Curriculum**  
**Scheme of Work – 2023-24**

Term 1 – Week 1

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<b>Lesson Focus</b>	Big Picture – light waves	Big Picture – Chemical and electrical effects of a light wave.	Big Picture – Reflection and reflected images	
<b>Prerequisite Knowledge</b>	KS2, The Universe Y7 Energy 7PE	KS2, The Universe Y7 Energy 7PE Previous lesson: light waves	KS2, The Universe Y7 Energy 7PE Previous lesson: light waves, Chemical and electrical effects of a light wave	
<b>Core Knowledge</b>	<ul style="list-style-type: none"> <li>▪ Describe the properties of light waves</li> <li>▪ Describe what happens when light meets a surface</li> <li>▪ Draw ray diagrams to illustrate light travelling and meeting different surfaces</li> </ul>	<ul style="list-style-type: none"> <li>▪ Describe the chemical and electrical effect of light</li> <li>▪ Identify variables to change, measure and control to test a hypothesis</li> <li>▪ Write a conclusion and draw a table the data collected</li> </ul>	<ul style="list-style-type: none"> <li>▪ Follow a method to test a given hypothesis and make a conclusion from data collected</li> <li>▪ Apply the law of reflection to different scenarios</li> <li>▪ Describe properties of reflected images</li> <li>▪ Describe and explain specular and diffuse reflections</li> </ul>	
<b>Expert Model /Guided Practice/Agreed Approach</b> (Procedural Knowledge)	Highlighting key terms, wave, transverse, longitudinal, reflection, refraction, absorption, emission, transmission. Highlighting rules of drawing ray diagrams and demonstrating application of the rules	Highlighting key terms, chemical effects, photosynthesis, photosensitive paper, electrical effect, solar	Highlighting the law of reflection Demonstrating the practical procedure on proving the law of reflection. Modelling describing and explaining the effect of concentration on the rate of a reaction	
<b>Independent Practice</b>	IP 1 – defining a wave and describing the two types of waves. IP 2 – questions on what happens to a wave when it meets a surface IP 3 – identifying rules of drawing ray diagrams	IP 1 – chemical and electrical effects of light. IP 2 – identifying independent and dependent variables in an investigation	IP 1 –carrying out the practical to prove the law of reflection, recording results appropriately.  IP 2 – writing a conclusion on the practical	

	IP 4 – drawing ray diagrams	IP 3 – identifying independent and dependent variables in an investigation IP 4 –Processing results IP 5 – Writing a conclusion	IP 3 –exam question, application of the law of reflection IP 3 & 4 –properties of reflected images	
<b>Assessment</b> (Informal/Formal)	Circulation/live feedback/self-assessment/class assessment/whole class feedback (mini whiteboard)/quiz.	Circulation/live feedback/self-assessment/class assessment/whole class feedback (mini whiteboard)/quiz.	Circulation/live feedback/self-assessment/class assessment/whole class feedback (mini whiteboard)/quiz.	
<b>Resources</b>	worksheets,	worksheets	practical equipment, worksheets	
<b>Specific SEN(D)/EAL support</b>				