



# Science Curriculum Plan 2022/2023



STOKE HIGH SCHOOL  
- Ormiston Academy

OAT  
Ormiston Academies Trust  
An OAT Academy

Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
7	<b>B1- Cells;</b> <ul style="list-style-type: none"> <li>How do cells work?</li> <li>How are cells specialised?</li> </ul>	<b>C1 – Particles;</b> <ul style="list-style-type: none"> <li>How are particles made?</li> <li>How do we use chemical equations?</li> </ul>	<b>P1 – Energy</b> <ul style="list-style-type: none"> <li>What is energy?</li> <li>How do we create energy?</li> </ul>	<b>How Science Works;</b> <ul style="list-style-type: none"> <li>How do we conduct Science experiments?</li> <li>How do we increase accuracy, reliability, and repeatability?</li> </ul>	<b>B2 – Respiratory and Cardiovascular Systems;</b> <ul style="list-style-type: none"> <li>How do we breathe?</li> <li>How does our heart work?</li> </ul>	<b>C2- States of Matter</b> <ul style="list-style-type: none"> <li>How are the different states made?</li> <li>How do the properties of states change?</li> </ul> <b>P2 – Solar System;</b> <ul style="list-style-type: none"> <li>What is in our solar system?</li> <li>How does the solar system effect us?</li> </ul>
Assessment Method	Formal Assessment using an Unit Exam	Formal Assessment using an Unit Exam	Formal Assessment using an Unit Exam	End of Formal Assessment using an Unit Exam	Formal Assessment using an Unit Exam	Formal Assessment using an Unit Exam
Opportunities	<i>DO NOW Tasks, Explicit Tier 3 Language, Reading Presentations and Science Articles, Knowledge Organisers, Homework Tasks</i> <i>Careers lessons will be conducted at the end of each Unit.</i>					
8	<b>B3 – Reproduction;</b> <ul style="list-style-type: none"> <li>How do humans reproduce?</li> <li>How does the menstrual cycle work?</li> </ul> <b>C3 – Melting and Boiling Points;</b> <ul style="list-style-type: none"> <li>How do bonds effect states of matter?</li> </ul>	<b>How Science Works;</b> <ul style="list-style-type: none"> <li>How do we conduct Science experiments?</li> <li>How do we increase accuracy, reliability, and repeatability?</li> </ul> <b>C4 – Types of Reaction;</b> <ul style="list-style-type: none"> <li>How are reactions different?</li> <li>What do we use reactions for?</li> </ul>	<b>P3 – Circuits;</b> <ul style="list-style-type: none"> <li>How does a circuit work?</li> <li>What are the key components of a simple circuit?</li> </ul>	<b>B4 – Adaptations;</b> <ul style="list-style-type: none"> <li>How are animals adapted to survive?</li> <li>How did we evolve?</li> </ul>	<b>C5 – Acids &amp; Alkalis;</b> <ul style="list-style-type: none"> <li>What is an acid and alkali?</li> <li>How can you change them?</li> </ul>	<b>P4 – Forces;</b> <ul style="list-style-type: none"> <li>What is a force?</li> <li>How do we balance forces?</li> </ul>
Assessment Method	Formal Assessment using an Unit Exam	Formal Assessment using an Unit Exam	Formal Assessment using an Unit Exam	Formal Assessment using an Unit Exam	Formal Assessment using an Unit Exam	Formal Assessment using an Unit Exam
Opportunities	<i>DO NOW Tasks, Explicit Tier 3 Language, Reading Presentations and Science Articles, Knowledge Organisers, Homework Tasks</i> <i>Careers lessons will be conducted at the end of each Unit.</i>					
9	<b>B5 – Photosynthesis;</b> <ul style="list-style-type: none"> <li>How do plants grow?</li> <li>How does a food chain work?</li> </ul>	<b>C6- Specific Heat Capacity</b> <ul style="list-style-type: none"> <li>What is specific Heat Capacity?</li> <li>How do we use <math>Q=mc\Delta T</math>?</li> </ul>	<b>B6 – Digestion;</b> <ul style="list-style-type: none"> <li>How does our body get energy?</li> <li>How do we digest food?</li> </ul>	<b>C7 – Periodic Table;</b> <ul style="list-style-type: none"> <li>How was the Periodic Table made?</li> <li>What is it used for today?</li> </ul>	<b>C8 – The Earth;</b> <ul style="list-style-type: none"> <li>How was the earth made?</li> <li>How is the Greenhouse effect changing our world?</li> </ul>	TRANSITION
Assessment Method	Formal Assessment using an Unit Exam	Formal Assessment using an Unit Exam	Formal Assessment using an Unit Exam	Formal Assessment using an Unit Exam	Formal Assessment using an Unit Exam	Formal Assessment using an Unit Exam
Opportunities	<i>DO NOW Tasks, Explicit Tier 3 Language, Reading Presentations and Science Articles, Knowledge Organisers, Homework Tasks</i> <i>Careers lessons will be conducted at the end of each Unit.</i>					
10	<b>B3 – Digestion;</b> <ul style="list-style-type: none"> <li>How does our body digest food?</li> <li>How does our body use the energy from food?</li> </ul> <b>P1 – Energy</b> <ul style="list-style-type: none"> <li>How is energy stored?</li> <li>How is energy transferred?</li> </ul>		<b>C1 (catch up) - Atomic Structure &amp; the Atom;</b> <ul style="list-style-type: none"> <li>How is the atom structured?</li> <li>How does this effect properties of elements?</li> </ul> <b>C5 – Energy Changes;</b> <ul style="list-style-type: none"> <li>What are the different types of reactions?</li> <li>How can we calculate and change the rate of reaction?</li> </ul>		<b>B3 - Infection and Response</b> <ul style="list-style-type: none"> <li>How does our body respond to disease?</li> </ul> <b>P2 - Electricity</b> <ul style="list-style-type: none"> <li>How do we produce and use electricity?</li> </ul> <b>P3 - Particle Model of Matter</b> <ul style="list-style-type: none"> <li>How can we predict the behaviour of solids, liquids &amp; gases?</li> </ul>	
Assessment Method	End of Unit Exam	End of Unit Exam	End of Unit Exam	End of Unit Exam	End of Unit Exam	PPE
Opportunities	<i>DO NOW Tasks, Explicit Tier 3 Language, Reading Presentations and Science Articles, Knowledge Organisers, Homework Tasks, Walking Talking Mocks</i>					

11	<p>B6 – Global Challenges;</p> <ul style="list-style-type: none"><li>How do we treat diseases?</li><li>How does our body fight against different illnesses?</li></ul> <p>C6 - Global Challenges;</p> <ul style="list-style-type: none"><li>How do we extract crude oil and make it useful?</li><li>How do humans impact global climate change?</li></ul>		<p>P6 - Global Challenges</p> <ul style="list-style-type: none"><li>How do we keep people safe in cars?</li><li>How do we produce and get energy to our homes?</li></ul>			
Assessment Method	End of Unit Exam	PPE		PPE		
 Opportunities	DO NOW Tasks, Explicit Tier 3 Language, Reading Presentations and Science Articles, Knowledge Organisers, Homework Tasks, Walking Talking Mocks					