

KS4 Long Term Plan – 2021-2022

Subject: Physics

Exam Board: AQA

Curriculum Statement of Intent Science

The aim of the Science department here at St Pauls' is:

“Empowering students to take ownership of their learning enabling them to achieve outstanding results and become independent scientists realising the importance of science in their everyday lives. The Science Department are a dedicated, supportive team who value sharing good practice to make students be the best that they can be.”

Science at St Paul's is about developing student's ideas and ways of working that enable them to make sense of the world in which they live through investigation, as well as using and applying processing skills. We ensure that all children are exposed to high-quality teaching and learning experiences, which allow children to engage with practical experiments. They are immersed in scientific vocabulary, which aids students' knowledge and understanding not only of the topic they are studying, but of the world around them. We intend to provide all students with a broad and balanced Science curriculum and encourage them to develop a sense of excitement and curiosity about Science.

Science teaching at St.Paul's involves adapting and extending the curriculum to match all pupils' needs across all 3 Key Stages. We ensure that all students are provided with rich learning experiences that aim to:

- Prepare our children for life in an increasingly scientific and technological world today and in the future;
- Help our children acquire a growing understanding of the nature, processes and methods of scientific ideas;
- Help develop and extend our students scientific concept of their world;
- Build on our students natural curiosity and developing a scientific approach to problems;
- Encouraging open-mindedness, self-assessment, perseverance and developing the skills of 3 investigations – including: observing, measuring, predicting, hypothesising, experimenting, communicating, interpreting, explaining and evaluating;
- Develop the use of scientific language, recording and techniques;
- Make links between science and other subjects.

Curriculum Statement of Implementation

KS4: the GCSE Science curriculum is delivered across 3 years, currently with 2 Triple sets and 4 Trilogy sets in each year group. The students have 6 Science lessons a week, and each Science is taught by a specialist in that area which ensures that their subject knowledge is excellent. The curriculum is 'spiralled' so that the building blocks for each specialism are laid in Year 9 and then built upon throughout the 3 year program, with lots of quizzes and interleaving. We aim to finish teaching the curriculum content by December of Y11 so that we can then revise.

At the end of each topic the students have an End of Module test, which also includes an interleaved question from a previous topic, thus ensuring that the students are regularly reviewing previous learning. As well as embedding content throughout each module, the students also complete Required practicals, which help to develop their practical skills and promote their interest in science. These are written up in lab books which provide the method and also include exam style questions to help prepare them for external assessments.

We use 'Educake' for homework, which is an online Learning platform that develops the students AO1 skills. We also set Exam questions every few weeks to help the students develop their Higher level AO2 skills.

The impact and measure of our Science curriculum is to ensure students not only acquire the appropriate age related knowledge linked to the curriculum, but also skills which equip them to progress from their starting points, and within their everyday lives.

All children will have:

- A wider variety of skills linked to both scientific knowledge and understanding, and scientific enquiry/investigative skills;
- A richer vocabulary which will enable to articulate their understanding of taught concepts; and
- High aspirations, which will see them through to further study, work and a successful adult life.

2021/2022			
Week commencing	Trilogy	Triple	Year 9 Assessment Schedule
06/09/2021	Energy 12 Lessons	Energy 12 Lessons	
13/09/2021			
20/09/2021			
27/09/2021			
04/10/2021			
11/10/2021			
18/10/2021	Assessment	Assessment	
25/10/2021	Autumn half term		
01/11/2021	Reflection	Reflection	Exams
08/11/2021	Energy 10 Lessons	Energy 12 Lessons	Marks on spreadsheet
15/11/2021			Reports due Monday
22/11/2021			
29/11/2021			
06/12/2021			
13/12/2021	Electricity 2		
20/12/2021	Christmas		
27/12/2021	Christmas		
03/01/2022	Electricity 2	Electricity 2	
10/01/2022	Assessment	Assessment	Exams week
17/01/2022	Reflection	Reflection	Marks on spreadsheet
24/01/2022	Electricity 6 Lessons	Electricity 6 Lessons	Reports due Wednesday
31/01/2022			
07/02/2022			Parents evening
14/02/2022	Spring half term		
21/02/2022	Electricity 12 Lessons	Electricity 12 Lessons	
28/02/2022			
07/03/2022			
14/03/2022			
21/03/2022			
28/03/2022			
04/04/2022	Easter		
11/04/2022	Easter		
18/04/2022	Particle Model of Matter 10 Lessons	Electricity 6 Lessons	
25/04/2022			
02/05/2022			
09/05/2022		Particle Model of Matter 4 Lessons	
16/05/2022			
23/05/2022	Revision	Revision	
30/05/2022	Summer half term		
06/06/2022			Exams
13/06/2022			Exams
20/06/2022	Particle Model of Matter 4 Lessons	Particle Model of Matter 8 Lessons	
27/06/2022			
04/07/2022			
11/07/2022			
18/07/2022			
	Unit	Trilogy lessons	Triple lessons
	1. Energy	22	26
	2. Electricity	27	30
	3. Particle Model of Ma	14	15
	4. Atomic Structure	11	15
	5. Forces	22	32
	6. Waves	15	26
	7. Electromagnetism	8	12
	8. Space	0	8

2021/2022				
Week commencing	Trilogy	Triple	Year 9 Assessment Schedule	
06/09/2021	Atomic Structure 11 Lessons	Atomic Structure 14 Lessons		
13/09/2021				
20/09/2021				
27/09/2021				
04/10/2021				
11/10/2021				
18/10/2021			Assessment	
25/10/2021	Autumn half term			
01/11/2021	Waves 14 Lessons	Atomic Structure 1		
08/11/2021		Assessment		
15/11/2021		Waves 10 Lessons		
22/11/2021				
29/11/2021				Exams
06/12/2021				Marks on spreadsheet
13/12/2021				Reports due Monday
20/12/2021	Christmas			
27/12/2021	Christmas			
03/01/2022	Waves 1 Lesson	Waves 12 Lessons		
10/01/2022	Assessment			
17/01/2022	Electromagnetism 8 Lessons			
24/01/2022				
31/01/2022				
07/02/2022				
14/02/2022	Spring half term			
21/02/2022	Assessment	Waves 4 Lessons		
28/02/2022	Forces 6 Lessons	Assessment		
07/03/2022		Forces 2 Lessons		
14/03/2022		Revision	Revision	Reports due Friday
21/03/2022	Revision	Revision		
28/03/2022	Easter			
04/04/2022	Easter			
11/04/2022	Easter			
18/04/2022			Exams	
25/04/2022			Exams	
02/05/2022	Reflection	Reflection		
09/05/2022	Forces 6 Lessons	Forces 6 Lessons	Reports due Friday	
16/05/2022				
23/05/2022				
30/05/2022	Summer half term			
06/06/2022	Forces 10 Lessons	Forces 12 Lessons		
13/06/2022				
20/06/2022				
27/06/2022				
04/07/2022				WEX???
11/07/2022				
18/07/2022				
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	1. Energy	22	26	
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06/09/2021	Forces 6 Lessons	Forces 6 Lessons	
13/09/2021			
20/09/2021			
27/09/2021	Revision	Revision	
04/10/2021	Revision	Revision	
11/10/2021	Paper 2 hybrid mock	Paper 2 hybrid mock	Mocks
18/10/2021	Paper 2 hybrid mock	Paper 2 hybrid mock	Mocks
25/10/2021	Autumn half term		
01/11/2021	Revision	Forces 4 Lessons	Reports due Wednesday
08/11/2021		Space 8 Lessons	Parents evening
15/11/2021			
22/11/2021			
29/11/2021			
06/12/2021			
13/12/2021	Revision		
20/12/2021	Christmas		
27/12/2021	Christmas		
03/01/2022	Revise paper 1	Revision	
10/01/2022		Revise paper 1	
17/01/2022			
24/01/2022			
31/01/2022	Paper 1	Paper 1	PPEs
07/02/2022			PPEs
14/02/2022	Spring half term		
21/02/2022			
28/02/2022			
07/03/2022			Reports due Wednesday
14/03/2022			Parents evening
21/03/2022			
28/03/2022	Internal paper 2	Internal paper 2	
04/04/2022	Easter		
11/04/2022	Easter		
18/04/2022			
25/04/2022			
02/05/2022			
09/05/2022			
16/05/2022			GCSEs
23/05/2022			GCSEs
30/05/2022	Summer half term		
06/06/2022			GCSEs
13/06/2022			GCSEs
20/06/2022			GCSEs
27/06/2022			
04/07/2022			
11/07/2022			
18/07/2022			
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