



Be World Class

**Autumn Term
Term 1**

Science

Year 11

Name: _____

Tutor: _____

Year 11 Homework Timetable

Monday	English Exam Question	English Sparx	Maths Sparx
Tuesday	Option A Exam Question	Science Carousel	Science Sparx
Wednesday	Option B Exam Question	Option A Carousel	Maths Sparx
Thursday	Option C Exam Question	Option B Carousel	Science Sparx
Friday	Science Exam Question	Option C Carousel	Catch Up Sparx

Sparx Science

- Complete 100% of their assigned homework each week

Sparx Maths

- Complete 100% of their assigned homework each week

Option A (EBACC)	Option B	Option C
Computer Science	Business Studies	Art
Languages	Hospitality and Catering	Business Studies
Geography	Drama	Hospitality and Catering
History	Music	Computer Science
	Geography	Drama
	Health and Social Care	Photography
	ICT	Science (Triple)
	Media Studies	Sport
	Music	
	Sport	
	Travel and Tourism	

Half Term 1 (7 weeks) - Year 11		
Week / Date	Homework task 1 Carousel Quiz	Homework task 2 Exam Question
Week 1 7th September 2026	Complete the questions on Carousel, these will be tested in your LSQ	Complete the exam question. Ensure Sparx & Carousel are both at 100%
Week 2 14th September 2026	Complete the questions on Carousel, these will be tested in your LSQ	Complete the exam question. Ensure Sparx & Carousel are both at 100%
Week 3 21st September 2026	Complete the questions on Carousel, these will be tested in your LSQ	Complete the exam question. Ensure Sparx & Carousel are both at 100%
Week 4 28th September 2026	Complete the questions on Carousel, these will be tested in your LSQ	Complete the exam question. Ensure Sparx & Carousel are both at 100%
Week 5 5th October 2026	Complete the questions on Carousel, these will be tested in your LSQ	Complete the exam question. Ensure Sparx & Carousel are both at 100%
Week 6 12th October 2026	Complete the questions on Carousel, these will be tested in your LSQ	Complete the exam question. Ensure Sparx & Carousel are both at 100%
Week 7 19th October 2026	Complete the questions on Carousel, these will be tested in your LSQ	Complete the exam question. Ensure Sparx & Carousel are both at 100%

Half Term 2 (6 weeks) - Year 11

Week / Date	Homework task 1 Carousel Quiz	Homework task 2 Exam Question
Week 8 9th November 2026	Mock Exams	Mock Exams
Week 9 16th November 2026	Mock Exams	Mock Exams
Week 10 23rd November 2026	Complete the questions on Carousel, these will be tested in your LSQ	Complete the exam question. Ensure Sparx & Carousel are both at 100%
Week 11 30th November 2026	Complete the questions on Carousel, these will be tested in your LSQ	Complete the exam question. Ensure Sparx & Carousel are both at 100%
Week 12 7th December 2026	Complete the questions on Carousel, these will be tested in your LSQ	Complete the exam question. Ensure Sparx & Carousel are both at 100%
Week 13 14th December 2026	Complete the questions on Carousel, these will be tested in your LSQ	Complete the exam question. Ensure Sparx & Carousel are both at 100%

Week 1 Task 2 - Complete the exam question using full sentences. Then ensure Sparx and Carousel are both completed to 100%.

Cells are the basic units of all forms of life.

Describe **four** differences between a bacterial cell and a plant cell (4 marks).

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Improvement Work: Describe **four** differences between a bacterial cell and a plant cell.

Week 2 Task 2 - Complete the exam question using full sentences. Then ensure Sparx and Carousel are both completed to 100%.

Explain the trend in the reactivity of the Group 1 metals (4 marks).

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Improvement Work: Explain the trend in the reactivity of the Group 1 metals

Week 3 Task 2 - Complete the exam question using full sentences. Then ensure Sparx and Carousel are both completed to 100%.

Fossil fuels are burned in car engines and in power stations.

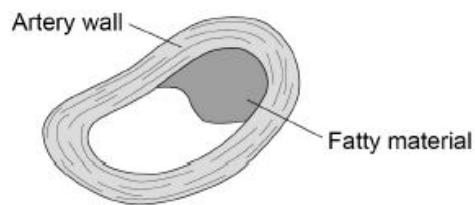
- (a) Describe how different energy stores change in a car engine when a fossil fuel is burned.(2 marks)
- (b) Renewable energy resources can have a negative impact on the environment. Give one negative environmental impact of hydro-electric power and of wind power. (2 marks)

[illegible]

Improvement Work: Explain what happens to the potential difference across resistor R as the light intensity decreases. (3)

Week 4 Task 2 - Complete the exam question using full sentences. Then ensure Sparx and Carousel are both completed to 100%.

The diagram below shows a coronary artery of someone with CHD.



Explain how CHD can cause a heart attack. (3)

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Improvement Work: Explain how CHD can cause a heart attack. (3)

Week 5 Task 2 - Complete the exam question using full sentences. Then ensure Sparx and Carousel are both completed to 100%.

- Describe the plum pudding model of the atom
- Give two conclusions that were made from Rutherford's alpha scattering experiment

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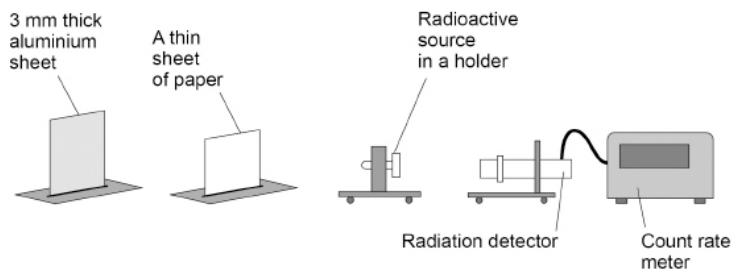
Improvement Work:

- (a) Describe the plum pudding model of the atom
- (b) Give two conclusions that were made from Rutherford's alpha scattering experiment

Week 6 Task 2 - Complete the exam question using full sentences. Then ensure Sparx and Carousel are both completed to 100%.

A teacher wants to demonstrate that the radioactive source emits alpha, beta and gamma radiation.

The figure below shows the equipment the teacher has.



Describe a method the teacher could use. (6)

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Improvement Work: Describe a method the teacher could use. (6)

Week 7 Task 2 - Complete the exam question using full sentences. Then ensure Sparx and Carousel are both completed to 100%.

The different components of the blood can be used to treat different medical conditions.

The table below gives information about:

- blood from blood donation by volunteers
- the production of red blood cells from stem cells in laboratories.

Blood from blood donation	Production of red blood cells from stem cells
It can take 10 minutes to collect blood from a vein in the arm. A person can donate blood every 12 weeks. Blood can be stored for 35 days. Blood can be separated into different blood components and plasma.	Red blood cells can be produced when needed in small quantities. It takes 28 days to produce red blood cells. A patient’s own stem cells can be used to make red blood cells.

Evaluate the use of blood donation to provide blood components compared with using stem cells to provide blood components. Use information from the table above and your own knowledge.

Improvement Work: Evaluate the use of blood donation to provide blood components compared with using stem cells.

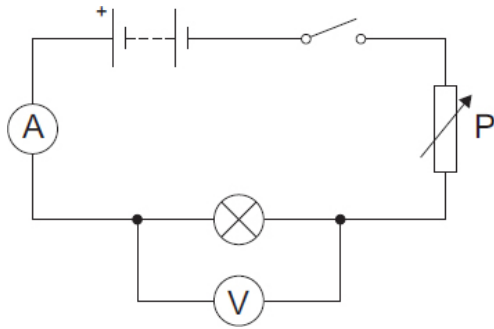
Week 8 Task 2 - Complete the exam question using full sentences. Then ensure Sparx and Carousel are both completed to 100%.

Describe what happens when a potassium atom reacts with a chlorine atom to produce potassium chloride (4 marks)

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Improvement Work: Describe what happens when a potassium atom reacts with a chlorine atom to produce potassium chloride (4 marks)

Week 9 Task 2 - Complete the exam question using full sentences. Then ensure Sparx and Carousel are both completed to 100%.



The student measured different values of potential difference and the corresponding values of current for the filament lamp.

Describe how the student could use the circuit above to make these measurements (4 marks).

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Improvement Work: Describe how the student could use the circuit above to make these measurements

Week 10 Task 2 - Complete the exam question using full sentences. Then ensure Sparx and Carousel are both completed to 100%.

Describe the similarities and differences between benign tumours and malignant tumours (4 marks)

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Improvement Work: Describe the similarities and differences between benign tumours and malignant tumours.

Week 11 Task 2 - Complete the exam question using full sentences. Then ensure Sparx and Carousel are both completed to 100%.

Describe a method to investigate how the temperature changes when different masses of ammonium nitrate are dissolved in water. You do not need to write about safety precautions.(6)

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Improvement Work: Describe a method to investigate how the temperature changes when different masses of ammonium nitrate are dissolved in water. You do not need to write about safety precautions. (6)

Week 12 Task 2 - Complete the exam question using full sentences. Then ensure Sparx and Carousel are both completed to 100%.

Explain how using step-up transformers makes the national grid efficient (3 marks)

Explain why step down transformers are needed in the national grid (2 marks)

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Improvement Work:

Explain how using step-up transformers makes the national grid efficient (3 marks)

Explain why step down transformers are needed in the national grid (2 marks)

Week 13 Complete the exam question using full sentences. Then ensure Sparx and Carousel are both completed to 100%.

The human digestive system breaks down protein and fat in the drink.

Describe how protein and fat are digested (6 marks)

You should include:

- the enzymes involved
- where the enzymes are produced

[illegible]

Improvement Work: Describe how protein and fat are digested
