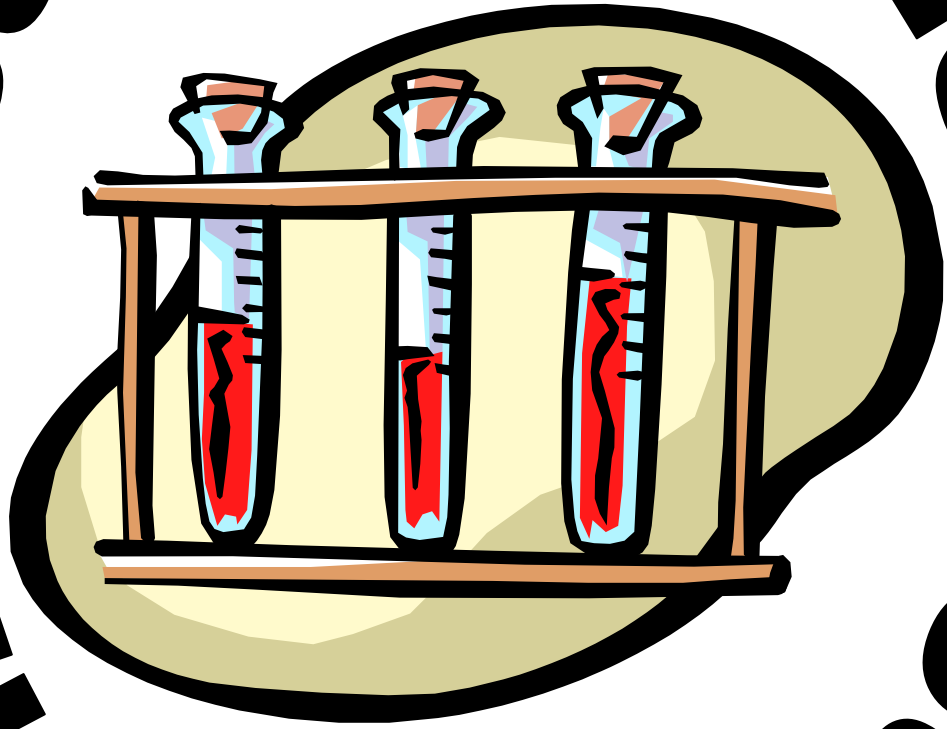






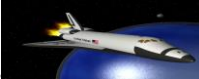


Year 9 Science Course Outline



2016

Year 9 Science Assessment Schedule

	Week	Topic	Assessment	Points	Grade N,A,M,E	
Term 1	1	Introduction to the Laboratory 				
	2					
	3					
	4					
	5					
	6		Test	4		
	7	Light 				
	8					
	9		Research project	2		
	10					
	11	Biology - Close Up Look at Food Chains  	Mini- test	1		
Term 2	1					
	2					
	3		Practical	1		
	4					
	5					
	6		Test	3		
	7					
	8		Chemistry - Matter and Chemical Reactions 			
	9					
	10					
Term 3	1	Earth Study - Geology 				
	2					
	3		Test	5		
	4					
	5					
	6					
	7					
	8					
	9	Test	2			
Term 4	1	Earth Study - Space				
	2					
	3	EXAM PREPARATION				
	4	EXAM PREPARATION AND EXAM		Exam		
	5					
	6	Earth Study - Space 				
	7		Test	2		
	8					
	9					

Year 9 Science - Outline of the Course

During the year you will cover **4 main subject areas**. These are

Introduction to the Laboratory

- Knowledge of the Safety Rules for a laboratory.
- What to do if an accident happens in the laboratory.
- Lab equipment - drawing and how to use of equipment
- Be able to recognise if an action is dangerous in the laboratory.
- Be able to make and accurately describe observations.
- Being able to measure accurately, converting between units and drawing graphs.
- Be able to identify common gases (oxygen, hydrogen and carbon dioxide) and know how to test gases released from reactions of acids with familiar substances.
- Light and how it makes shadows, images and colours
- How the eye, magnifying glasses, and pinhole cameras work



Close Up Look at Food Chains (Biology)

- Understand environmental factors involved in habitats and therefore communities.
- Be able to observe adaptations of an animal / plant and relate this to how the animal / plant survives in its habitat.
- Describe inter-relationships in feeding between plants and animals in a community and relate this to trophic levels. Food chains and food webs.
- Construct and use a key.
- Label parts of a microscope and describe how to make a slide.
- Identify the main parts and differences between plant and animal cells.



Matter and Chemical Reactions (Chemistry)

- Solids, liquids and gases - particle nature of matter
- Elements, compounds and mixtures
- Change of state - processes like evaporation, freezing etc.
- Acids and bases - indicators (litmus and pH paper/liquid)
- Simple atomic structure and the first 20 elements of the Periodic Table.
- Learn the names and formulas of a selection of common chemicals.



Planet Earth and Beyond (Geology)

- Understand the structure of the Earth
- Be able to describe why continental drift works.
- Have an understanding of volcanoes and earthquakes.
- Know the 3 main types of rocks and how they are formed.
- Be able to discuss the Rock Cycle
- Discuss weathering and Erosion of Rocks



Planet Earth and Beyond (Astronomy)

- To be able to describe our place in the Universe (Third rock from the Sun).
- To be able to describe what causes day and night.
- Be able to describe how seasons occur.
- Be able to describe the phases of the moon and why they occur.
- Be able to describe and explain how eclipses occur.
- Be able to describe and explain how tides occur.

Year 9 ASSESSMENT 2015

During the year you will cover **8 sub units** which make up the **4 main learning areas** mentioned earlier and sit a range of assessments, including a 2 hour end of year exam. You will be assessed against the Year 9 Science Curriculum. Assessments will be given one of the following four grades

- **Achievement with Excellence** **E**
- **Achievement with Merit** **M**
- **Achievement** **A**
- **Not Achieved** **N**

Next Step: Your objective over **Year 9 and 10** is to try to achieve Achievement, Merit or Excellence grades.

At the end of Year 10:-

Students who gain an average grade of Achievement, Merit or Excellence will be eligible to enter:

the Science 101 NCEA course doing Internal and External Achievement Standards.

All other students will take the **Science 102 NCEA course** doing Internal Achievement Standards only.

Science 102 students cannot do Physics, Biology or Chemistry in Year 12 and 13.

Reports

On your reports you will also be given grades for Effort, Behaviour and Completion of work.

Effort

Excellent	Gives their best efforts at all times and actively contributes to the class
Good	Usually gives of a strong effort and contributes to the class most of the time
Below Standard	Makes a reasonable effort in class but not to best of ability
Cause for Concern	Is not making a satisfactory effort in class

Behaviour

Excellent	Always well behaved and contributes to a positive learning environment
Good	Usually well behaved and contributes to a positive learning environment most of the time
Below Standard	Sometimes conforms to classroom routines and teacher expectations
Cause for Concern	Exhibits behaviour that prevents learning of self and / or others.

Completion of work

Excellent	Work (including homework) always completed to a high standard
Good	Work (including homework) always completed to best of ability
Below Standard	Work (including homework) sometimes completed to best of ability
Cause for Concern	Work (including homework) often uncompleted / not completed to best of ability

Year 9 Science Assessment Schedule and Record of Achievement

Topic	Sub-Unit	Assessment type	Assessment date (Approx.)	Points	Grade Awarded (N, A, M, E)	Parent / Guardian Signature
Introduction to the Laboratory	Demonstrate understanding of how to work in a science laboratory	Test	Term 1 week 6	4		
Light (Physics)	Research, with direction, ways we use light	Research Project	Term 1 week 9	2		
Close Up Look at Food Chains (Biology)	Demonstrate understanding of the link between biological adaptations and survival	Mini-Test	Term 2 week 2 OR Term 2 week 5	1		
	Carry out a biological drawing	Practical	Term 2 week 3 OR Term 2 week 5	1		
	Demonstrate understanding of biological ideas in a community	Test	Term 2 week 8	3		
Matter & Chemical Reactions (Chemistry)	Demonstrate understanding of chemistry	Test	Term 3 week 5	5		
Earth and Space	Demonstrate understanding of the process that shape the Earth	Test	Term 3 week 10	2		
Examination	All topics (Reassessment opportunity for all topics except Biological drawing and Space)	2 hour exam	Term 4 week 4			
Earth and Space	Demonstrate understanding of space	Test	Term 4 week 7	2		

Make sure you visit the Y9 Science Web page regularly to help you with your learning.

During the year make sure you visit the **Kapiti College Science Web Page** on **MyKC**

The Year 9 Science page on the school's MyKC (Moodle) website
(accessible by clicking the link for Year 9 Science on the
Science department page on the MyKC website)



These web pages have material to help you with
your study. They include resources for each topic
as well as previous year's exams and test papers.



SCIENCE DEPARTMENT


 News forum

Learning in science is fundamental to understanding the world in which you live. It helps people clarify ideas, to ask questions, to test explanations through measurement and observation, and to use their findings to establish the worth of an idea.

In Science we focus on you understanding and investigating the living, physical, material and technological components of your environment. You will be provided with opportunities to develop scientific investigation skills to extend and develop your existing ideas about science.

Science is a major influence in many aspects of your daily life, at work, at play and at home and the Science course focuses on activities and ideas that are relevant to you.

Course Outlines (including Assessment timelines)











-  [Year 9 Science Course Outline](#)
-  [Year 10 Science Course Outline](#)
-  [Health Science 101 Course Outline](#)
-  [Science 101 Course Outline](#)
-  [Science 102 Course Outline](#)
-  [Science 202 Course Outline](#)

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Course categories:

Courses

- [Year 9 Science Course Outline](#) 
- [Unit One - Introduction to Science](#) 
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- [9 Science Test & Exams](#) 
- [Common Resources Y9 Science](#) 