

## COURSE OUTLINE 2012

### Subject and Level:

Science NCEA Level 1

### Course Prerequisites:

**Books:** Write on student workbooks, set of three available from the school office for \$20. Other revision/extension/study guide material may become available through the year.

### Aims:

- Relate key structural features and functions to the life processes of micro-organisms and investigate environmental factors that affect these processes.
- Explore patterns in the inheritance of genetically controlled characteristics.
- Explain the importance of variation within a changing environment.
- ions between the solar, lunar, and Earth cycles and the effect of these on Earth.
- Investigate trends and relationships in physical phenomena (in the areas of mechanics, electricity, electromagnetism).
- Demonstrate an understanding of physical phenomena and concepts by explaining and solving questions and problems that relate to straightforward situations.
- Investigate how physics knowledge is used in a technological or biological application.
- Identify patterns and trends in the properties of a range of groups of substances, for example, acids and bases, metals, metal compounds, and hydrocarbons.
- Explore factors that affect chemical processes.
- Distinguish between atoms, molecules, and ions (includes covalent and ionic bonding).
- Link atomic structure to the organisation of the periodic table.
- Use particle theory to explain factors that affect chemical processes.

### Course Content:

Year 11 Science is a general science course essential for all students wishing to study any specialised science (Biology, Chemistry or Physics) at level 2 or higher

- Mechanics
- Electricity and magnetism
- Acids and bases
- Chemical reactions
- Genetic variation
- Humans and microorganisms

### Assessment:

#### Internal assessment:

3 x level 1 Achievement Standard, of 4 credits each involving an investigation relating to Biology, Chemistry and Physics. These will be assessed throughout the year.

#### External assessment:

3 x level 1 Achievement standard, of 4 credits each relating to Biology, Chemistry and Physics. Students wishing to continue their science study in year 12 Biology, Chemistry or Physics must pass the relevant external Achievement Standard

Departmental policy on further assessment opportunities: any missed internal assessment may be undertaken at the end of the term 3 exam week.

### Where can this take you?

An understanding of Science is an essential skill for all members of society in order that they can make informed decisions on scientific and technological issues they will be faced with. An understanding of Science will ensure their survival.

### Appeal procedures:

Follows the approved LPHS Assessment Appeals Procedure.

**Contact for further inquiries:**

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or HOD Science: Mr Thompson mbt@lphs.school.nz

**Assessment chart:**

AS No	Standard Title	Credits	Internal / External	Format	Indicative Date
1.1 90940v1	Demonstrate an understanding of aspects of mechanics	4	External	External	November 2012
1.2 90941v1	Investigate the implication of electricity and magnetism in everyday life	4	Internal	Practical report	Mid Term 1
1.5 90944	Demonstrate an understanding of aspects of acids and bases	4	External	External	November 2012
1.8 90947v1	Investigate selected chemical reactions	4	Internal	Practical report	End Term 1
1.9 90948v1	Demonstrate an understanding of biological ideas relating to genetic variation	4	External	External	November 2012
1.11 90950v1	Investigate interactions between humans and micro-organisms	4	Internal	Practical report	Mid Term 2