

# ACADEMIC PROGRAMS

## Semester I

Year 7 - 10 Science

# FAIRHOLME SCIENCE DEPARTMENT

Course: Grade 7 Science

Outline: SEMESTER 1, 2017

Introduction:

## Term One

### Biological Sciences – *Habitats and Interactions*

- Classify using hierarchical systems
- Present different reasons for classification and communication
- Demonstrate and use a variety of keys to identify organisms
- Group a variety of organisms on the basis of similarities and differences
- Construct and interpret food chains and food webs to demonstrate relationships in an environment
- Natural and human impacts on habitats
- Pearson text chapter 5 and 6

## Term Two

### Earth Sciences – *The Earth and its Resources*

- Describe how renewable and non-renewable energy sources are used
- Describe the changes of state that occur in the water cycle
- Investigate factors affecting the water cycle in nature
- Lunar and solar eclipses, seasons and phases of the moon
- Rotations and orbits of the Earth, Sun and Moon
- Pearson text chapters 3 and 9

## Assessment Summary:

### Term One – Biological Sciences

| Week | Date    | Assessment Task  | Formative/Summative |
|------|---------|--|---------------------|
| 9    | 21/3/17 | Stimulus Response Written Test<br>(Stimulus received 1 week prior) | Summative           |

### Term Two – Earth Sciences

| Week | Date    | Assessment Task | Formative/Summative |
|------|---------|-----------------|---------------------|
| 8    | 31/8/17 | Written Test    | Summative           |



# FAIRHOLME SCIENCE DEPARTMENT

Course: Grade 8 Science

Outline: SEMESTER 1, 2017

Introduction:

## Term One

**Biological Sciences - *From little things big things grow***

- How to use a microscope
- Investigating animal and plant cells
- Specialised cells
- Digestive Systems
- The circulatory system and exercise
- The respiratory system and smoking
- Pearson Chapter 2 & 3

## Term Two

**Physical Sciences - *How we experience energy***

- Presenting and analysing scientific data
- Understanding and identifying experimental errors
- Energy in our lives
- Potential and Kinetic Energy
- The Law of Energy Conservation
- Energy Efficient Design of everyday household products
- Person Chapter 5

**Biological Sciences – *Growth and Reproduction***

- Sexual and asexual reproduction
- Human reproduction and growth
- Pregnancy
- Pearson Chapter 4

## Assessment Summary:

### Term One – Biological Sciences

| Week | Date    | Assessment Task        | Formative/Summative |
|------|---------|------------------------|---------------------|
| 9    | 20/3/17 | Stimulus Response Task | Summative           |

### Term Two – Physical Sciences

| Week | Date       | Assessment Task                     | Formative/Summative |
|------|------------|-------------------------------------|---------------------|
| 7-8  | 29/5 - 9/6 | Extended Experimental Investigation | Summative           |



# FAIRHOLME SCIENCE DEPARTMENT

Course: Grade 9 Science

Outline: SEMESTER 1, 2017

Introduction:

## Term One

### Biological Sciences - *Ecosystems*

- Examine Australian ecosystems
- Identify the abiotic and biotic factors that influence environments
- Adaptations
- Food webs, food chains and how energy flows through ecosystems
- Queensland's biodiversity – 'reef to rainforest'
- Natural and human impacts on ecosystems
- Analysing ecological graphs and data
- Pearson text chapter 9
- Field Trip: Main Range National Park – Goomburra QLD

## Term Two

### Earth Sciences – *On shaky ground*

- Plate Tectonic Theory, History and Evidence
- Convection currents
- Natural disasters
- Plate Boundaries
- Seismic waves
- Contemporary issues related to living near plate boundaries
- Pearson Chapter 10

## Assessment Summary:

### Term One – Biological Sciences

| Week | Date    | Assessment Task  | Formative/Summative |
|------|---------|--|---------------------|
| 8    | 14/3/16 | Submission of field booklet                                | Formative           |
| 9    | 20/3/17 | Stimulus Response Task<br>(Stimulus received 1 week prior) | Summative           |

### Term Two – Physical Sciences

| Week | Date   | Assessment Task          | Formative/Summative |
|------|--------|--------------------------|---------------------|
| 8    | 5/6/16 | Earthquake Research Task | Summative           |





# FAIRHOLME SCIENCE DEPARTMENT

Course: Grade 10 Science

Outline: SEMESTER 1, 2017

Introduction:

## Term One – Chemical Sciences

- Atomic structure review
- Periodic table (including electron configuration)
- Bonding types
- Types of reactions
- Balancing symbol equation
- Rates of reactions
- Pearson text chapters 4 and 5

## Term Two – Physical Sciences

- Predict/describe motion using the laws of Physics
- Measure and analyse objects motion
- Investigate Energy changes and efficiency
- Investigate Forces and Newton's law in action through exploration of structures
- Pearson text chapters 8 and 9

## Assessment Summary:

### Term One – Chemical Sciences

| Week | Date    | Assessment Task                     |
|------|---------|-------------------------------------|
| 6    | 8 March | Extended Experimental Investigation |

### Term Two – Physical Sciences

| Week | Date   | Assessment Task     |
|------|--------|---------------------|
| 6    | 23 May | Written Examination |

