S.Y6.U2 – Energy; power up, electricity usage down - Year 6
This program is an incursion where students investigate energy sources, how to reduce electricity consumption and how to reduce the usage of standby power. Several key practical components from Curriculum into the Classroom - Science Unit 2 Energy and electricity, lessons 8, 9 & 10, 11, 12, 18 & 19 will be explored providing students with an understanding to develop their energy saving campaign in lesson 20.

Half Day Incursion

YEAR 6 Science – Australian Curriculum and C2C Mapping

| Science as a Human Endeavour | Nature and developing science
Science involves testing predictions by gathering data and using evidence to develop explanations of events and phenomena [ACSH098]
Important contributions to the advancement of science have been made by people from a range of cultures [ACSH100]
Using and Influencing science
Scientific understandings, discoveries and inventions are used to solve problems that directly affect peoples' lives [ACSH100]
Scientific knowledge is used to inform personal and community decisions [ACSH220]

| Science Inquiry Skills | Questioning and Predicting
With guidance, pose questions to clarify practical problems or inform a scientific investigation, and predict what the findings of an investigation might be [ACSI222]
Planning and Conducting
With guidance, plan appropriate investigation methods to answer questions or solve problems [ACSI103]
Decide which variable should be changed and measured in fair tests and accurately observe, measure and record data, using digital technologies as appropriate [ACSI104]
Use equipment and materials safely, identifying potential risks [ACSI105]
Processing and Analysing data and Information
Construct and use a range of representations, including tables and graphs, to represent and describe observations, patterns or relationships in data using digital technologies as appropriate [ACSI107]
Compare data with predictions and use as evidence in developing explanations [ACSI221]
Evaluating
Suggest improvements to the methods used to investigate a question or solve a problem [ACSI108]
Communicating
Communicate ideas, explanations and processes in a variety of ways, including multi-modal texts [ACSI110]

| Science Understandings | Biological Science
The growth and survival of living things are affected by the physical conditions of their environment [ACSSU094]
Chemical Science
Changes to materials can be reversible, such as melting, freezing, evaporating; or irreversible, such as burning and rusting [ACSSU095]
Earth and Space Science
Sudden geological changes or extreme weather conditions can affect Earth's surface [ACSSU096]
Physical Science
Electrical circuits provide a means of transferring and transforming electricity [ACSSU097]
Energy from a variety of sources can be used to generate electricity [ACSSU219]

| C2C | Life on Earth
Making changes
Our Changing World
Energy and electricity

Nudgee Beach EEC programs
Life on Earth and In the Sea

| General Capabilities | Literacy
Comprehending texts through listening, viewing and reading
Composing texts through speaking, writing and creating
Text knowledge • Grammar knowledge • Word knowledge • Visual knowledge
Numeracy
Calculating and estimating • Recognising and using patterns and relationships
Using fractions, decimals, percentages, ratios and rates • Interpreting and drawing conclusions from statistical information
Using measurement
Information and communication technology capability
Queensland student ICT expectations • Inquiring with ICT • Creating with ICT • Operating ICT
Critical and creative thinking
Inquiring • Identifying, exploring and clarifying information • Generating innovative ideas and possibilities
Reflecting on thinking, actions and processes • Analysing, synthesising and evaluating information
Personal and social capability
Self-management • Social management
Ethical behaviour
Understanding ethical concepts and issues
Intercultural understanding
Recognising • Empathy

| Cross Curriculum Priorities | Sustainability
Students will:
• examine actions being considered to improve sustainable living through reducing electrical energy consumption and wastage
• examine sustainable energy sources and how they can be used to generate electricity
• explore how waste can be used as an alternative, sustainable energy source