Science 2-6 Overview Term 1 2017

Kindergarten

Staying Alive – Biological Science

All animals, including humans, use their sensory organs to gather information about their environment. The sharp eye, the cocked ear, or the careful sniffing of air can warn animals of dangers that might threaten their survival. Humans use senses to gather information not only critical for our immediate safety, but also for planning to meet our basic needs for things such as food, water and shelter.

The Staying Alive unit provides opportunities for students to investigate the basic needs for survival of animals, including humans, and how their senses help them stay alive.

Year 1 – Biological Science

Schoolyard Safari

This unit explores the external features of small animals and how their features help them survive in their habitats, through a series of collaborative inquiry-based learning activities. Investigations into how a range of small animals move, feed and protect themselves are conducted, and comparisons are made of the animal's different habitats.

Year 2 – Earth and Space Science

Primary Connections Unit – 'Waterworks'

Water is essential to life. As humans, we not only drink water, we use it for cooking, hygiene, recreation and agriculture. Australia is a dry continent with an expanding population, and how we use water has become increasingly important. Water is a precious resource.

The "Water works" unit links science with literacy in the classroom. This unit provides opportunities for students to develop an understanding of, and appreciation for, a precious natural resource. Through investigations, students explore the properties of water, how water is used, where water comes from and how to use it responsibly.

Advance notice for parents - Students will be issued with a design and make homework task in Term 1 which will be due in Term 1, Week 8. Please look in bags for the sheets – "Design and Make a Sailing Boat." This engineering project requires the boats to be student made from recycled materials. This advance notice is so that you have time to start collecting materials. Parents - the best way to help is to start saving polystyrene containers, plastic bottles, yogurt pots, plastic sheets good for sails, paddle pop sticks, corks, pieces of foam in a junk/useful box. This will allow your child to have a variety of materials from which to work. The wider the choice, the more creative your child can be.

Year 2/3AR will complete the Year 3 Primary Connections program (see below). However, the Year 2 students in this class will still complete the Year 2 "Design and Make a Sailing Boat" homework task.

Years 3 and 4 and 2/3AR - Physical Science

Primary Connections Unit – 'Heating Up'

Heat is important to us in many ways in our everyday lives. We use heat in practical ways, such as drying our hair, cooking our dinner and warming our water. We enjoy the feel of the Sun's warmth on our skin on a spring day or the satisfying warmth of holding a cup of hot chocolate on a cold winter's night. But we also know about the dangers of heat and react instinctively when we touch a hot stove or walk barefooted on hot sand. However, heat also preoccupies us. We worry about things being too hot or too cold—the daily temperature, our coffee, our food, the water in the shower, how we sleep.

The "Heating Up" unit links science with literacy in the classroom. It provides opportunities for students to investigate different heat sources and how heat moves from one object to another. Through hands-on activities, students investigate the difference in conductivity of materials. Primary heat sources (that transform different energy sources to heat) and secondary sources (that transfer heat they have accumulated) are investigated.

Students will be using a Student Science Journal issued by Primary Connections.

Years 5 and 6

Primary Connections Unit – 'Circuits and Switches'

The "Circuits and Switches" unit links science with literacy in the classroom. Through hands-on investigations, students explore series and parallel circuits and their components, including batteries, bulbs and switches to explain how a torch works.

They discuss sources of electrical energy, and design, make and appraise an electrical quiz game, an electro-magnet and a steady hand tester incorporating an electrical circuit with a switch.

Students will also particpate in Engquest where they design and make an eco friendly house with at least 2 rooms. Each room must have lights that turn on/off independently using 1 power source only. Students who were in the 4/5/6 class 2 years ago can elect to do another Engquest project if they wish.

Year 6 students will participate in VALID testing - an online Science test at the end of the year. Parents will be issued with a report - similar to Naplan in December.

Students in Year 5 and 6 are encouraged to participate in ICAS competitions.