

## Overview

(To be seen in the light of our BBS)

## Rationale

Science studies centre on the acknowledgement that the world in which we live belongs to God who created and upholds it. Through scientific inquiry we can perceive a degree of the amazing complexity and orderliness of God's world. With this fuller understanding of creation comes a deepened awareness of the goodness and power of its Creator. When we study creation, we learn not only about God but also about ourselves. God designed a perfect harmony of relationships among humans, animals, plant and nonliving things, but our fall into sin disrupted this unity and balance. As God's redeemed people, through Christ's redeeming power, we have been entrusted with bringing about restoration and reconciliation to God's good creation. Science is an essential tool for us to use in learning about the natural laws God has established so that we can care for the world wisely.

The study of Science studies matches a sense of awe at the unity and diversity of creation with an awareness of the delicate balance of interrelationships among its parts. Students are led to examine their own lifestyles and become conscious of the impact that their daily actions have on the myriad forms of life in God's creation. They are encouraged to see their unique abilities as a means to honour and obey God, to serve other humans, and to sustain God's remarkable gift of the Earth and its resources.

The study of Science is one method of learning about God as he reveals himself in creation, but this study must always be conducted in the light of the special revelation God has given through the Bible. Science is important for studying direct causes and finite relations in the material world. It can explain how events occur, but it cannot explain why. The Bible sets the facts obtained through scientific study in the correct context of ultimate causes and infinite relations. The Bible and Science are complimentary, together helping us understand God's plan and purpose for creation.

Science is a gift from God which has benefited humankind in many ways; however, students are led to recognize that only God holds the complete truth, and that science is only one method, albeit a powerful one, of understanding God's creation.

(Taken from Orangeville Christian School Curriculum Handbook which in turn used CSI and OACS material))

Specific rationales for Key Areas of Science

- **Biology:** Biology is the study of living things from familiar, complex multicellular organisms that live in the many different habitats of our biosphere to single celled micro-organisms that live in seemingly inhospitable conditions. Biology enables students to understand that despite the diverse ways of meeting the challenges of survival, all living things have many structural and functional characteristics in common which can be attributed to a creative God who makes all things work together for the good of his creation. Biology is the understanding of both form and function so that we may better stewards of his kingdom and creation and bring him glory in how we cultivate the earth.
- **Physics:** Physics enables students to develop a deeper understanding of how God's creation works. As people, we have been given a mandate from God to care for his creation. In order to understand how we can best use the resources God has given us, we investigate and learn as much as we can about how he has designed creation to work. Equipped with knowledge, physics students can develop new ways to work more efficiently, waste less energy, create less waste, all while improving living conditions for all of creation.
- **Chemistry:** Chemistry seeks to model, understand, tailor and make use of everything in the natural world, from the atomic building blocks of matter to the complex metabolic pathways of living organisms. It is a fascinating subject which has the potential to impact the world in which we live for either good or ill. We as people, the final step of God's creation, created in His image, have been given the task to care for His creation. Through many centuries, God has allowed mankind great insights into the orderly way He has designed this universe. As Christians, we are to love our neighbour. With challenges like these facing us in the future, Chemistry is certainly a subject in which we can use our scientific gifting to serve others.
- **Earth and Environmental Science**

## Aims

The Australian Curriculum: Science aims to ensure that students develop:

- an interest in science as a means of expanding their curiosity and willingness to explore, ask questions about and speculate on the changing world in which they live
- an understanding of the vision that science provides of the nature of living things, of the Earth and its place in the cosmos, and of the physical and chemical processes that explain the behaviour of all material things
- an understanding of the nature of scientific inquiry and the ability to use a range of scientific inquiry methods, including questioning; planning and conducting experiments and investigations based on ethical principles; collecting and analysing data; evaluating results; and drawing critical, evidence-based conclusions
- an ability to communicate scientific understanding and findings to a range of audiences, to justify ideas on the basis of evidence, and to evaluate and debate scientific arguments and claims
- an ability to solve problems and make informed, evidence-based decisions about current and future applications of science while taking into account ethical and social implications of decisions

- an understanding of historical and cultural contributions to science as well as contemporary science issues and activities and an understanding of the diversity of careers related to science
- a solid foundation of knowledge of the biological, chemical, physical, Earth and space sciences, including being able to select and integrate the scientific knowledge and methods needed to explain and predict phenomena, to apply that understanding to new situations and events, and to appreciate the dynamic nature of science knowledge.

And ..

- an understanding, appreciation and acknowledge of God as the creator and sustainer of the universe, and to know increasingly the complexity, majesty, wisdom, love and power of God and the dependence of all things on him.
- An understanding of their roles as God's servants who may use but not abuse the world around us.