

Surprise, curiosity & fascination with science

by Rodney Martin

Science

A scientist needs to know a lot, which makes sense. *Science* comes from *scientia*, a form of the ancient Latin verb *scire* 'to know'. It travelled through Old French as *science*, and about 1340 entered English meaning 'knowledge from study'. The silent letter *c* probably came from Old French. The modern meaning of 'the study of mathematics, physics, chemistry, etc' did not happen until 1725. The word *scientist* first appeared in 1834.

"Science is built with facts as a house is with stones – but a collection of facts is no more a science than a heap of stones is a house."
Jules Henri Poincare (1854-1912)

It is unfortunate that our society is having difficulty attracting children into the field of science in their education. The Australian national curriculum is attempting to address this by awakening children's interest in this area of study at a very early age.

Children have a natural curiosity about science before they know what it is. How many parents notice their children discover the word 'why' and plague them with questions about everything and anything?

The curriculum is pointing schools towards encouraging children to learn to ask the 'big picture' questions. This is where knowing a collection of facts is made meaningful – what do all those facts mean? How do those facts change our understanding of our world? How can they improve our world if used effectively?

Science is in every aspect of life. Parents are dealing with science when they have their children join them in cooking. Why does the cake 'rise' in the oven? How does a wet cake mix change to a lighter, fluffy thing?

Growing things is science. How does a seed grow? What does it need to grow? Can you watch it grow? (Yes. Fix a bean seed against the inside of a jar with paper and water.) The facts are the 'what happens'. The science is the 'why it happens' and the 'how I can use that knowledge'.

My grade 7 teacher placed a chrysalis on a twig beside an open window. That day the class watched a wanderer butterfly emerge, spread its wings to dry and then fly out of the window. He didn't have to say anything – yet he was igniting our minds with science.