

Rethinking the teaching of science: insights from research into student learning

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Abstract: The declining interest in science at primary, secondary and tertiary levels has been well documented over recent years. While the reasons for this are complex, we need to reconsider the way science is typically taught if we are to provide those students who have chosen to study science with a rich and rewarding experience. In particular, it is proposed that we need to teach science more like the way science is practised, that is, as an exciting field of intellectual inquiry rather than a process of memorising and recalling large quantities of information. This will mean radically rethinking what it means to learn science, how science should be taught and how learning should be assessed. There is now a rich literature concerning both how people learn and ways to facilitate learning through effective teaching strategies. However, much of this knowledge is unknown to those teaching science in universities. This presentation reviews some of the latest insights to emerge from research into student learning and considers the implications of this research for science teaching.