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Experienced-based Chemistry in a New Era

Guide for Curriculum Unit 94.05.03
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The best lessons in life are given to us by experience. Experience is the best teacher. Upon this common-sense notion, a series of chemistry classes have been designed in the manner appropriate for the 1990s. Each class has three parts to it, those essential to the scientific method-hypothesis, experiment and conclusion. The central event is the experiment or simulated experience to which students put questions (hypotheses) and after devising the experiment themselves with the teacher as guide, the students come up with their own conclusions i.e. lessons from life.

Experience is often thought of as learning the hard way, but it is the contention of this teaching unit that in the context of the classroom, it is the easiest way to motivate and turn bored students into active learners. The typical approach of teaching theory first and then doing occasional lab work as illustrations of theory is a mistake because cognition is dogma unless it acts from within an immediate experience. The idea is presented to teachers to test for themselves. The unit consists of nine lessons that follow an imaginary journey of some water molecules through the hydrological cycle. The content is standard, but the approach is novel.

(Recommended for Chemistry, grades 10-11, and Environmental Science, grades 9-12)

Keywords

Chemistry Hydrological Cycle Environment

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