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Searching for Truth: The Modeling Method of Instruction¹

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Engagement. Exploration. Student led learning. Higher order thinking. Knowledge that is retained. These are the desired goals of every science educator. The problem for many educators is how to accomplish all of them! I had the great fortune to be introduced to the modeling method of instruction, and it has changed my entire outlook on science and education. The modeling method is a constructivist approach to education that has been successfully implemented across the country; not some pie in the sky dream of education theorists. In modeling instruction, conceptual phenomena are understood by the construction of simple, yet refinable models that build upon one another. In addition, multiple methods for representing the phenomena observed, such as verbal, graphical, algebraic and diagrammatic help students build a rich mental construct. Finally, modeling instruction is research driven. Assessment devices, such as the Force Concept Inventory have proven the efficacy of modeling instruction many times over. This presentation will focus on the how, what and why of modeling instruction, with an emphasis on modeling mechanics.

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