

# Features of an inquiry-based lesson

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The ideas being taught arise in the context of an inquiry, rather than as a prerequisite to inquiry.

The inquiry is into a rich problem: one with multiple interpretations, multiple solutions, multiple approaches to a solution, multiple extensions, or multiple intuitive conjectures.

## The teacher

- provides the topic and problem.
- plays the role of an experienced co-learner rather than that of a factual authority.
- sculpts the class session in response to the responses of the students, rather than following a completely pre-planned script.
- might follow the *SPOSA model*:
  - Set the context
  - Pose the problem
  - Observe quietly while students work and report
  - Summarize major concepts and lead posing of extension problems
  - Assess, at least informally

## Students, ideally,

- make meaning for themselves rather than being told what meaning to make.
- are motivated by intellectual interest in the problem rather than by grades or threats.
- engage in higher-order cognitive skills even while encountering new facts and practicing lower-order skills.
- learn the effectiveness or lack thereof, of procedures by trying them rather than by being told, although the teacher will guide thinking to avoid too much “reinventing the wheel.”
- decide on procedures, results, and conclusions.
- engage in an open critique of all ideas they encounter.
- are involved in the 5-E *learning cycle*:
  - Engage
  - Explore
  - Explain
  - Extend

all while evaluating