Concepts addressed:
Major Cognitive Processes Associated with Student Learning

Higher Level Thinking
Why is it important to develop higher order thinking skills?

In our complex and specialized world it is imperative that individuals think divergently and creatively in order to see relationships between seemingly different concepts. Lessons teachers design can stimulate higher-level thinking and engage students in discussions that allow connections between content and their own lives.

Many teachers use Bloom's Taxonomy to design discussion questions that promote higher level thinking processes. Bloom's Taxonomy refers to the following thinking processes as higher level:
- Evaluation
- Synthesis
- Analysis
- Application

Lower Level thinking processes include:
- Comprehension
- Knowledge

The following website offers a question that target higher order thinking.
http://sbci.cps.k12.il.us/HOTStemplates.pdf

Doyle (1986) suggests higher order thinking skill can be developed through instructional activities and questions developed from four categories:
- Memory tasks
- Procedural or routine tasks
- Comprehension tasks
- Opinion tasks

Memory tasks and questions require students to recall information they have read or heard before. Procedural or Routine tasks and questions ask student to give simple answers with only one correct response. Comprehension tasks and questions require students to think about known information and apply it to new concepts. Finally, Opinion tasks and questions invite learners to express their own points of view.

Classrooms That Encourage High-Level Thinking Include:
- Multi-level materials
- Flexible grouping
- Acceptance and celebration of diversity
A print-rich environment
High expectations
The teacher as co-learner
Encouragement of risk-taking

Activities That Foster High-Level Thinking
  - Collaborative group activities that allow students to communicate and work with others in a variety of ways
  - Problem-solving activities that require more than routine calculations
  - Open-ended activities with more than one "right" answer
  - Activities, which accommodate multiple intelligences