

Critical Thinking

What it is: Critical thinking requires deep, structured thought. It involves higher-order skills (i.e., applying, analyzing, synthesizing, and evaluating), logical argument, and reasoning. Critical thinking can be traced back to Socrates. The great philosopher believed that we should ask deep, probing questions before we accept ideas as worthy. In this way, we gather evidence to closely examine reasoning and assumptions.

Benefits:

- Provides a foundation for self-directed learning
- Reveals facets of arguments and problems from which students can learn and expand their awareness of the world
- Promotes clarity, accuracy, precision, consistency, relevance, sound evidence, good reasons, depth, breadth, and fairness
- Develops "critical consumers"
- Is not discipline-specific, therefore is versatile and can be applied across curricular areas (i.e., it can help develop disciplinary literacy)

Situations where the strategy is useful:

- To provide depth or complexity in learning opportunities
- To differentiate in the classroom using tiered assignments
- To encourage reflection and metacognition

Examples:

- Bloom's Revised Taxonomy (Anderson & Krathwohl, 2001)
- Problem-solving models such as *Future Problem Solving* (E. Paul Torrance, 1999)
- Socratic thinking
- Reasoning Model (Paul, 1997) - used in William and Mary curriculum units
- Synectics (Gordon, 1980)

Pointers:

- All students should get practice in critical thinking. It is essential, however, to provide these opportunities for students with high ability or high potential as a way to provide the rigor and depth that they crave.
- Effective questioning is key to critical thinking. Open-ended questions yield more information than closed questions. See the *Questioning* one-pager for additional information.
- Teach students to support their arguments by providing evidence. This will be particularly important for students that use their advanced language skills to gloss over what they don't understand or when they have misconceptions.

References/Resources

Anderson, L. W., and Krathwohl, D. R., (Eds.). (2001). *A taxonomy for learning, teaching and assessing: A revision of Bloom's Taxonomy of educational objectives: Complete edition*. New York: Longman.

Boswell, C. and Carlile, V.D. (2010). *RTI for the gifted student*. Hawthorne, NJ: Educational Impressions.

Future Problem Solving website. <http://www.fpspi.org>.

Gordon, W.J. (1960). *Synectics*. New York: Harper & Row.

Paul, R. (1997). *Critical thinking - What every person needs to survive in a rapidly changing world*. Sonoma, CA: Foundation for Critical Thinking.

Torrance, E. P., & Safter, H. T. (1999). *Making the creative leap beyond*. Buffalo, NY: Creative Education Foundation Press.