

Developing Critical Thinking Skills

Critical thinkers make decisions based on evidence and facts. They're able to connect facts and concepts, to categorize, manipulate, and put together information in novel ways. Providing students with opportunities to problem solve, reflect and make decisions fosters growth in critical thinking skills. Critical thinking is goal-directed aimed at making a judgment.

Questions are tools that can help students think critically. Good questions typically are open-ended, and require the student to go beyond recalling the facts. These questions have more than one defensible solution and necessitate consideration of multiple perspectives in a real-world context.

Tips for Asking Good Questions

- Ask questions that are open-ended. Does your question require a specific answer or are there many plausible answers?
- Ask questions that stimulate further research. Does your question encourage students to return to the source or investigate additional sources of data and information? Does your question allow the student to draw on personal experience? Does your question encourage the student to communicate with clarity and precision?
- Ask questions that require the student to analyze the information. Does your question require the student to determine cause and effect? To contrast and compare? Summarize information?
- Ask questions that incorporate divergent thinking. Does your question challenge basic assumptions and encourage brainstorming?
- Ask questions that guide student reflection and thinking. Have you asked, what do you think? What assumptions have you made? What evidence do you have? What assumptions could others make? Is there valid evidence that support those assumptions? What are the consequences of each assumption?
- Ask questions that encourage students to come to conclusions that are well-reasoned, and tested against relevant criteria. Does your question provide an opportunity for the student to communicate a solution clearly and precisely?

Selected Articles for Further Study

Jackson, S. *Good Questions for Inquiry-Based Projects*
www.scholastic.ca/education/teaching_tip/march2013.html

Paul, R. and Elder L. (2008). *The Thinker's Guide to the Nature and Functions of Critical and Creative Thinking*. Foundation for Critical Thinking Press.
http://dl4a.org/uploads/pdf/CCThink_6.12.08.pdf

Princeton University McGraw Center for Teaching & Learning: *Asking Good Questions in Class*
<http://www.princeton.edu/mcgraw/library/sat-tipsheets/good-questions/>

Teaching Channel: Inquiry-Based Teaching: Asking Effective Questions
<https://www.teachingchannel.org/videos/questions-for-inquiry-based-teaching>

Vogler, K.E. *Asking Good Questions* Summer 2008 | Volume 65 Educational Leadership,
<http://www.ascd.org/publications/educational-leadership/summer08/vol65/num09/Asking-Good-Questions.aspx>

Wilhelm, J.D. *Essential Questions*, Scholastic Instructor
<http://www.scholastic.com/teachers/article/essential-questions#.Uff0Z3dwg9Q.email>

Selected Free Critical Thinking Classroom Resources

teAchnology: The Online Teacher Resource
Variety of critical thinking worksheets
http://www.teach-nology.com/worksheets/critical_thinking/

Teachthought
10 Team-building games that promote critical thinking
<http://www.teachthought.com/teaching/10-team-building-games-that-promote-critical-thinking/>

Learn NC
K-12 Teaching and Learning from the UNC School of Education
<http://www.learnnc.org/lessons/search?phrase=critical+thinking>

The Critical Thinking Community
Remodeled lessons, teaching tactics, video guides...
<http://www.criticalthinking.org/>

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