

Inquiry Teaching Background: Resources and Tools

The goals of inquiry are to help students:

- Ask testable questions
- Develop investigations to answer their questions
- Make discoveries through their investigations
- Share findings with their peers

STRATEGIES	APPROACHES/TOOLS
Provide hands-on science activity materials	<ul style="list-style-type: none"> ▪ Stations ▪ Discovery Boxes ▪ Found objects ▪ Outdoor exploration
Engage students in observing and recording (“I notice” and “I wonder”)	<ul style="list-style-type: none"> ▪ Whole-class brainstorm ▪ Individual record ▪ Team record ▪ Science Journals
Identify testable questions	<ul style="list-style-type: none"> ▪ Sort ?s into “research” and “investigate” ▪ Use question strips ▪ Develop “juicy questions” ▪ Keep ongoing record of interesting questions
Collect and record data about discoveries	<ul style="list-style-type: none"> ▪ Use variety of observation tools (loupes, lenses, scopes, frames...) ▪ Use variety of measuring tools ▪ Build age-appropriate skills re: graphs and charts ▪ Illustrations ▪ Science Journals
Share findings	<ul style="list-style-type: none"> ▪ Team reports – many possible formats ▪ Compare results with others ▪ Kids Inquiry Conference
Identify more questions	<ul style="list-style-type: none"> ▪ Continue cycle

Further reading:

- Nurturing Inquiry: Real Science for the Elementary Classroom by Charles Pearce, Heinemann, 1999
- The Private Eye: Looking/(5X) Thinking by Analogy by Kerry Ruef, The Private Eye Project, 1992
- Science Notebooks: Writing About Inquiry, Brian Campbell and Lori Fulton, Heinemann, 2003
- Inquire Within: Implementing Inquiry-Based Science Standards, Douglas Llewellyn, Corwin Press, 2002
- Foundations: Inquiry – Thoughts, Views, and Strategies for the K-5 Classroom, National Science Foundation
- Picture-Perfect Science Lessons: Using Children’s Books to Guide Inquiry, Karen Rohrich Ansberry and Emily Morgan, NSTA Press, 2005
- **Great video download** featuring real teachers doing inquiry:
<http://www.learner.org/resources/series90.html#>
- **Inquiry Training:** Exploratorium, Inquiry Institute; <http://www.exploratorium.edu/ifi>