

Inquiry Structure for Learning Science Content

The Institute for Inquiry's approach is designed to enable learners to come to conceptual understanding of scientific ideas that are new to them. The Inquiry process is driven by the learner's curiosity and sustained by his or her sense of ownership of the process. But curiosity and ownership alone are not enough to ensure that learners have productive experiences that lead to the deeper understanding of scientific ideas. A well-thought-out structure and guidance by a teacher give shape and direction to curiosity within the context of a teacher's learning goals for science content, process, and attitudes.

Inquiry Starters

Learners explore materials, make observations, and raise questions related to content goals.

Inquiry Starters

Inquiry Starters are carefully designed activities intended to:

- Engage the learner's curiosity about phenomena related to content goals
- Stimulate a range of questions that learners can pursue in their investigations

Focused Investigation

Learners plan and carry out investigations based on their questions.

Focused Investigation

Small groups plan and carry out investigations based on questions raised at the Inquiry Starters. Investigations involve the following:

- Interacting with materials
- Making observations
- Proposing tentative explanations
- Making predictions and testing them
- Revisiting questions and explanations in light of new observations
- Recording and representing thinking through writing and drawing

Sharing Understanding

Learners share investigation results with each other to further their understanding of scientific concepts.

Sharing Understanding

This is an opportunity for learners to examine their ideas and share their experiences. This includes:

- Giving participants time to consolidate ideas and figure out how to communicate what they've learned to others
- Encouraging investigation groups to build upon each others' ideas to arrive at an understanding of key science concepts
- Having facilitators summarize key science concepts by drawing upon ideas presented by investigation groups