

Scientific Inquiry



Definition

Scientific Inquiry is the basic experimentation category where a question is asked, a hypothesis is created, an investigation is performed, and a conclusion is reached.

Scientific Inquiry requires students to use higher order thinking skills as they learn science using a hands-on minds-on approach.

Pertinent Information And Definitions

Scientific Method

The scientific method is a fundamental part of this category. It is, in essence, a sequence of operation for any Scientific Inquiry. The steps are:

- Ask a testable question.
- Research the topic.
- Make a hypothesis about the outcome based on that research and/or the entrant's own knowledge.
- Design the investigation.
- Conduct the investigation.
- Collect data.
- Make sense of the data and draw a conclusion.

Entry, Review and Judging

An entry in this category will be reviewed and judged on the following:

- Entry rules and general requirements judging points
- The scientific method (including completeness of thought processes and presentation of cause and effect)
- Preparation and display of information about the entry

Additional items which will affect the review and judging conclusions:

- Presentation of the inquiry findings for peer review.
- Understanding of how the inquiry relates to broader scientific principles and real world applications
- Originality and/or innovative approaches or concepts