



Frisch's Outreach: Inquiry 101 (Gr. 1-3) Extensions

Session Three



At a glance

Students will begin to understand how to use the Scientific Process to find answers to their questions.

Goal(s)

Students will begin to use the QUEST model to find answers to their questions.

Objective(s)

1. Students will be able to creatively share the scientific information they have learned with others.
2. Students will begin to think of other potential questions they would like to investigate.

Themes

The Scientific Process can be utilized to discover answers to our questions.

Sub-themes

The QUEST model is an aide in the discovery of answers to questions

Academic standards

<p>Benchmarks for Science Literacy (Project 2061)</p>	<p>Grade 1,2 Nature of Science, Scientific Inquiry 1B/P1,1B/P3,1B/P4 Grade 3 Nature of Science, Scientific Inquiry 1B/E1,1B/E2,1B/E2b,1B/E3a,1B/E4</p>
<p>Ohio Science Academic Content Standards</p>	<p>Benchmark -Scientific Inquiry <i>Grade 1-2 A,B,C</i> Benchmark- Scientific Ways of Knowing <i>Grades 1-2 A,B,C,D</i> Grade Level Indicators Doing Scientific Inquiry <i>Grade 1 1,2,3,4,5,6,8,9</i> <i>Grade 2 1,2,3,4,5,6,7,9,10</i> <i>Grade 3 1,3,4,5,6</i> Nature of Science <i>Grade 1,2 1,2</i> <i>Grade 3 1</i> Ethical Practices <i>Grade 2 3</i> <i>Grade 3 2</i> Science & Society <i>Grade 1 3</i> <i>Grade 2 4</i> <i>Grade 3 5</i></p>
<p>Kentucky Core Content— Science</p>	<p>Benchmark -Scientific Inquiry <i>Grade 1-2 A,B,C</i> Benchmark- Scientific Ways of Knowing <i>Grades 1-2 A,B,C,D</i> Grade Level Indicators Doing Scientific Inquiry <i>Grade 1 1,2,3,4,5,6,8,9</i> <i>Grade 2 1,2,3,4,5,6,7,9,10</i> <i>Grade 3 1,3,4,5,6</i> Nature of Science <i>Grade 1,2 1,2</i> <i>Grade 3 1</i> Ethical Practices</p>

Background

Imagination and inventiveness are always involved in Inquiry. Students can learn about our world by gaining experience in conducting their own investigations and in working within small groups. Students can explore and determine their own questions. **What do you want to know?** Using Inquiry students can make Predictions about the possible answers to their questions. **What do you think?** Learners can understand the importance of collecting data and using scientific tools for that collection. **How do you know?** They will be challenged to check what they think to what they see. Once their questions can be scientifically answered by using Inquiry they can share with other learners their new found discoveries!

The QUEST model can be a formula for the Scientific Process but it can also allow for creativity and flexibility as determined by the learners.



Vocabulary

comparative (adj.)-compared with others considered relative to something known

data(n)-information often in the form of facts found from experiments and observations

ethogram(n)-catalog of behaviors on which an observer may record the numbers of such acts or the amount of time engaged in the behaviors

hypothesis(n)-tentative explanation used for basis of further investigation

observe(v)-to watch something attentively

prediction(n)-statement of what someone thinks will happen

question(n)- a quest for information or understanding

record(v) an account of something, preserved in a lasting form, e.g. in writing

scientific(adj) relating to, using, or conforming to scientific principles

Assessment

Unsatisfactory—student seems uninterested, does not participate, and does not answer questions.

Satisfactory—student seems somewhat interested, participates to some degree, and attempts to answer questions when asked

Excellent—student seems very interested; participates willingly in all activities, and answers questions. Student offers his or her own questions.

National Wildlife Federation (NWF)
Schoolyard Habitats Program
<http://www.mwf.org/schoolyard/index/cfm>

Project Dragonfly
www.muohio.edu/dragonfly

Project Feeder Watch
www.birds.cornell.edu/pfw/index.html

Extension

Knowledge is Power!

Can you use the Scientific Process to find answers to questions you have about your school, neighborhood, or community? When you find answers to your questions can you find ways to make changes for the welfare of your school, neighborhood, or community? Can you allow knowledge to work for the common good?

Resources

Broda, Herbert, Schoolyard Enhanced Learning: Using the Outdoors As An Instructional Tool, Stenhouse Publishers, 2007.

Louv, Richard. Last Child in the Woods: Saving Our Children From Nature Deficit Disorder. Algonquin Books, 2005.

Sobel, David, Place Based Education: Connecting Classrooms and Communities, Orion Society, 2004

Cincinnati Zoo & Botanical Garden
www.cincinnati-zoo.org