

Creating Information Literate, Critical Readers: Science Texts in
Elementary Classrooms

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Connecting Science and Literacy in the K-8 Classroom
September 29-October 2, 2005
St. Louis, MO

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Remains of Giant Armadillo Found

Builders in southern Peru have found the fossil of a giant armadillo – which lived as many as 2 million years ago and would have been the size of a Volkswagen Beetle – an archaeologist said yesterday.

“They were carrying out work inside a private home and stumbled upon this surprise during the digging,” said Pedro Luna of the National Institute of Culture in Cuzco.

He said the fossil was “almost complete” and was 6 1/2 feet long including the tail, 3 1/2 feet wide and with an average height of three feet. The glyptodont – which means “carved tooth” – had short legs with clawed toes, rings of bony armor on its tail and armor on its head.

Kinds of Informational Books

Narrative-informational

Story format for information including characters, goal, and resolution
 Specific references rather than general (Polly, "the parrot," Father Fox)
 Chronological; needs to be read sequentially

Nonnarrative-informational or Expository

Report format
 General references rather than specific (parrots, a fox)
 Can be read in any order
 Often has table of contents, headings, index, glossary, bibliography,
 diagrams

Mixed Text

Includes both narrative and nonnarrative in the same book
 Example: The original Magic School Bus series

Choosing Informational Books

Accurate Content

Author's and illustrator's qualifications
 References used
 Current information
 Text and illustrations clear
 Distinguishes between fact and theory

Format and Design that support content

Illustrations appropriate for content
 Illustrations labeled and explained
 Relative sizes indicated when appropriate

Writing Style

Lively, engaging language
 Accurate terminology used
 Generalizations and concepts given (not just a listing of facts)

Organization

Informational book aids (table of contents, index, glossary, etc.)
 Headings and subheadings

Guide for Choosing Information Books

[Adapted from Kletzien & Dreher, 2004, *Informational Text in K-3 Classrooms*.]

Name of Book _____ Type of Book _____

Characteristic	Notes	Possible Instruction
Content Accuracy		
Author's & illustrator's qualifications Experts in field Award winning		
References used Consultants who are experts Reliable print sources		
Information current Copyright date recent Information up to date		
Distinguishes between fact and theory Clear what is believed & what is known		
Text and illustrations clear		
Stereotypes not used in text or illustration		

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Design		
Illustrations appropriate for content		
Illustrations well placed on the page		
Illustrations labeled and explained		
Captions clear and informative		
Relative sizes indicated Enlargements noted		
Style		
Lively, engaging language		
Accurate terminology used		
Appropriate for children's level		
Generalizations and concepts given (Not just a collection of facts)		
Enthusiasm for topic evident		
Organization		
Information book characteristics Pagination, table of contents, index, glossary, additional reading list		
Headings and subheadings		
Clear pattern of organization		

Helping Students Monitor Their Hunt for Information

- What information do I need?
- Does this book (or website or magazine) have search features that would help me find what I want to know?
- Is the information I need located here?
- Does the information I have located make sense?
- Is there anything in this book (or website or magazine) to help me decide if the information is correct?
- Does this information relate to things I already know?
- Do I have all the information that I need to answer my question? If not, I should continue searching.

Adapted from Dreher (1992)

I-Chart for Pets

	Dogs	Cats	Goldfish	Hamsters	Rabbits	Gerbils
How to tell if they are healthy						
How to feed them						
How to keep them clean						

I-Chart Using More Than One Source on Deserts

Sources	Questions		
	1. What is a desert?	2. Where are the world's deserts?	3. What animals live in the desert?
<i>Deserts</i> by Angela Wilkes Usborne Publishers			
<i>Deserts</i> by Neil Morris Crabtree Publishing			

Adapted from Kletzien and Dreher (2004)

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Resources

Backflip

Teachers can use this free service to select and organize websites for their students to access.

<http://www.backflip.com/login.ihtml>

“Dinosaurs: Ancient Fossils, New Discoveries”

A new exhibit at the American Museum of Natural History in New York

<http://www.amnh.org/exhibitions/dinosaurs/>

Dinosaurs for Educators:

<http://www.amnh.org/education/resources/exhibitions/dinosaurs/>

Educators guide:

<http://www.amnh.org/education/resources/exhibitions/dinosaurs/educators.php>

Ithaca College Library Website

Ideas for critical thinking that could be used with older elementary students

[http:// www.ithaca.edu/library/training/think.htm](http://www.ithaca.edu/library/training/think.htm)

Knowledge Quest

Journal published by the American Association of School Librarians. Ideas for promoting information literacy.

Web companion *KQWeb*: <http://www.ala.org/ala/aasl/kqweb>

The Literacy Web

Created by Dr. Donald J. Leu and Julie Coiro at the University of Connecticut. Resources for integrating literacy and technology into instruction, including web quests

<http://www.literacy.uconn.edu/about.htm>

Marilyn Arnone’s Website

Resources for promoting information literacy and curiosity.

<http://www.marilynarnone.com/>

http://www.marilynarnone.com/educators_page.htm

MicroAngela's Electron Microscope Image Gallery

Close up views of flies, bees, ants etc. using artificially colored enhancements of black-and-white electron microscope images.

<http://www.pbrc.hawaii.edu/bemf/microangela/>

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<p>NASA's Solar System Exploration Website</p> <p>http://solarsystem.nasa.gov/educ/lessons.cfm</p>
<p>NPR's Science Friday for Kids Website</p> <p>http://www.sciencefriday.com/kids/</p>
<p>Outstanding Science Trade Books for Children</p> <p>Lists of outstanding books for K-12 from the National Science Teachers Association in cooperation with the Children's Book Council.</p> <p>http://www.nsta.org/ostbc</p>
<p>Search It! Science</p> <p>Subscription database of science tradebooks searchable by subject, type etc.</p> <p>http://searchit.heinemann.com/</p>
<p>Syracuse University's Center for Digital Literacy</p> <p>Multimedia database of information literacy lesson plans for K-8 educators to open to the public sometime in 2005.</p> <p>http://digital-literacy.syr.edu/</p>
<p>Teacherweb</p> <p>For a modest fee, provides templates and assistance to help teachers create and post webpages.</p> <p>http://teacherweb.com</p>
<p>Thinkport</p> <p>Sponsored by MPT (Maryland Public Television). Includes online field trips.</p> <p>http:// thinkport.com/</p>
<p>Trackstar</p> <p>Allows you to identify and annotate web sites for your students to use in online lessons.</p> <p>http:// trackstar.4teachers.org/trackstar/</p>

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