

## **Bibliography for *Science as Storytelling***

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### **Teacher Resources**

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### **Children's Books Cited**

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- Cole, Joanna. *The Magic School Bus Inside the Earth*
- Cole, Joanna. *The Magic School Bus Inside a Hurricane*
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- Horner John R. & Don Lessem. *Digging Up Tyrannosaurus Rex*
- Conley, Andrea. *Window on the Deep: The Adventures of Underwater Explorer Sylvia Earle*
- Mason. Cherie. *Everybody's Somebody's Lunch*

## **My purpose in writing:**

- Share the excitement of science
- Illustrate the scientific method in practice
- Find a new approach to a popular topic or introduce a less familiar topic

## **My goal: to be a non-fiction storyteller**

- “Grabber” first sentence is very important
- I like to start first chapter with an anecdote
- Have a sequence: beginning, middle, and end.
- Reference scientists and their research: quotes, anecdotes
- Include “first person” perspectives: my own, curators’, divers’, scientists’, researchers’, children’s
- Show the experience of doing science:  
Success/failure/frustrations/unanswered questions/challenging field conditions
- Incorporate humor
- End optimistically/show what children can do NOW to be good stewards of the earth

## Write like a science writer

Read several trade books to find an author whose style interests you.

Analyze the author's schema.

“Voice,” the way the information is presented, use of authentic example, ways to involve reader, other notable features (photos, illustrations, layout)

Identify a science topic that interests you.

What do I know? (You'll need to check back later to see if your assumptions are true.)

What do I want to know?

From that, frame a question to research, such as, *Do dolphins sleep?*

How will you research your question or issue?

Use at least 3 different ways, not just sources, i.e., books, videos, magazines, interviews, field guides, Internet, etc.

Did any of your previous assumptions change as a result of your research?

How will you fit your facts together?

Recall your analysis of your chosen author's schema.

Decide what goes first, middle, last. Make a story line.

What visual elements will your story have? (illustrations, photos)

Because this is non-fiction, how will you show that your information is accurate? (acknowledgments, quotes, testimonials)

What resources will you provide your readers?

Glossary, bibliography, eye-catching cover

Author's bio (yours)

Dedication

## **Questions to Ask When Selecting a Non-Fiction Science Tradebook**

**Does it engage the reader?**

**Is it clearly written?**

**Is it up-to-date?**

**Does it mention recent research/quote or interview scientists?**

**Does it show evidence of fact checking?**

**Does it avoid stereotypes?**

**Is it anthropomorphic/teleological?**

**Is it written at grade level?**

**Is it well organized?**

**Does it direct the reader further/things kids can do?**

**Does it end optimistically?**

## **Critique: How does this book support classroom learning?**

**Add other questions as we go along:**

**Cover** (Does it intrigue? Does it explain what's inside?)

**Design/Layout** (Appealing? Easy to follow? What verbal and visual cues help readers progress? Font? Background?)

**Content** (Evidence of accuracy? Are facts current? Are they engaging to reader? Avoid stereotypes and anthropological references? Are scientists or their research described? Interviews?)

**Graphics** (Do they further comprehension of the text? Is their placement relevant to text? Are there enough?)

**Flow/ Writing Style** (Engaging writing? Sequence? A "grabber" opening sentence? Age appropriate? Does it explain complex ideas clearly? Tense used?)

**Vocabulary** (Are terms explained adequately?)

**Organizers/Information "enhancers"** (Table of contents, index, glossary, headers, sidebars, insets, True or False quiz, etc. to complement text?)

**Follow-up Resources** (What information encourages continued exploration, as, bibliography, websites, "what you can do"?)

**How can it be useful for my classroom use?** (What are its strengths and weaknesses? Does it fit my curriculum? Can I pair with hands-on activities?)

## Everybody Needs a Rock

### WHY

Reading Byrd Baylor's ten rules for finding the perfect rock launches children into rock collecting, comparing and contrasting characteristics of rocks, and writing about their observations.

### TOOLS

Palm-size rocks of various colors, shapes, types, one sample for every one or two people

Index cards

Pencils

Optional: magnifying lenses

### HOW

1. Give a rock to each child/adult pair. Ask them to examine the rock using as many senses as they can. You may want to show the picture book, *Is It Rough? Is It Smooth? Is It Shiny?* by Tana Hoban to stimulate discussion.
2. Ask them to volunteer one or two word descriptions of what they observe and record these attributes.
3. Read *Everybody Needs A Rock* by Byrd Baylor.
4. Have the partners use the index cards create a description of their rock in any form they want, such as,
  - \*a poem
  - \*a scientific description of the rock's physical attributes
  - \*a story that describes where that rock might have come from
  - \*something that the rock reminds them of
  - \*a picture
5. Have them turn in their index cards. Spread the cards out on a table. Ask each pair to pick up an index card that doesn't belong to them and try to find the rock it describes. Then have them place the description under the rock.
6. Come back together and confirm each match with the authors of the description.
7. Ask the partners if they can add any more descriptive terms to their earlier list.
8. Ask them if the partners come up with any more rules for finding a special rock that you can "keep as long as you can—maybe forever."

### MORE IDEAS

1. Read *The Magic School Bus Inside the Earth* by Joanna Cole to learn how rocks are classified as igneous, sedimentary, and metamorphic.
2. Explore rock classification by peeling back rectangular containers of ice cream: rainbow sherbet for sedimentary, fudge swirl for metamorphic, and chocolate chip for igneous.
3. Find other books illustrated or written by Peter Parnall. He has a distinctive style that children can emulate by using thick black lines, earth colors, and (his trade secret) including an image of the sun in every illustration.
4. Look around the neighborhood to see how rocks are used in building, sidewalks, monuments, etc.
5. Read Byrd Baylor's *If You Are a Hunter of Fossils* to lead into a study of fossils. Look for evidence of the past in the neighborhood (as, footprints in mud, dates on gravestones, carvings on trees).

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