# Growing Knowing:
## Building Children's World Knowledge through Family Partnerships and Meaningful Engagement with Informational Text (part 1)

**Susan Bennett-Armistead**

**University of Maine**

# What is Literacy?

Reading

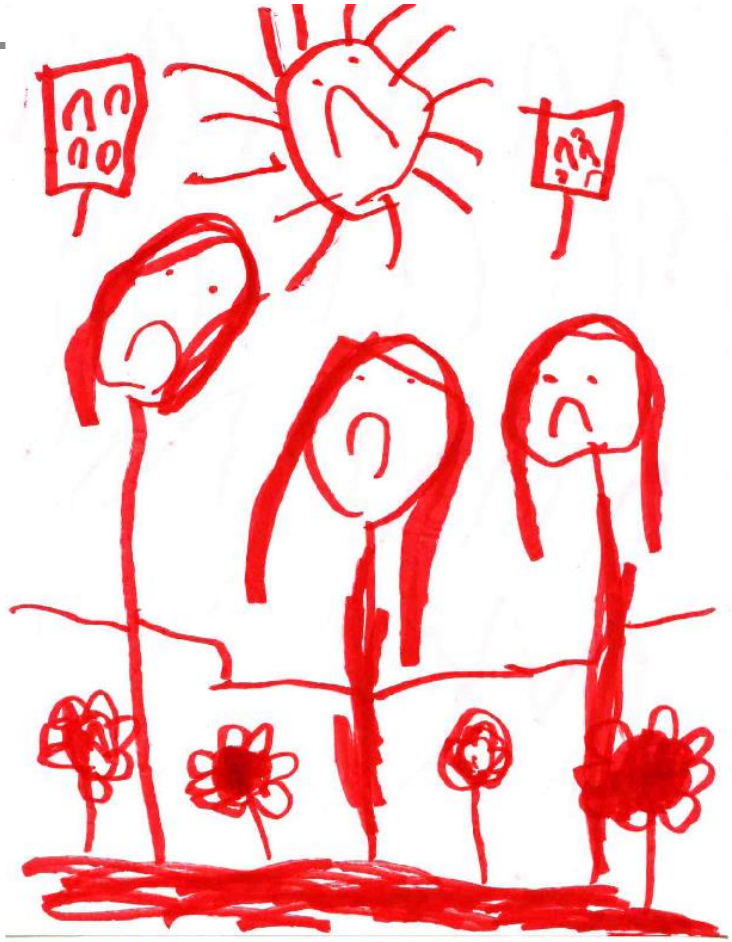
Writing

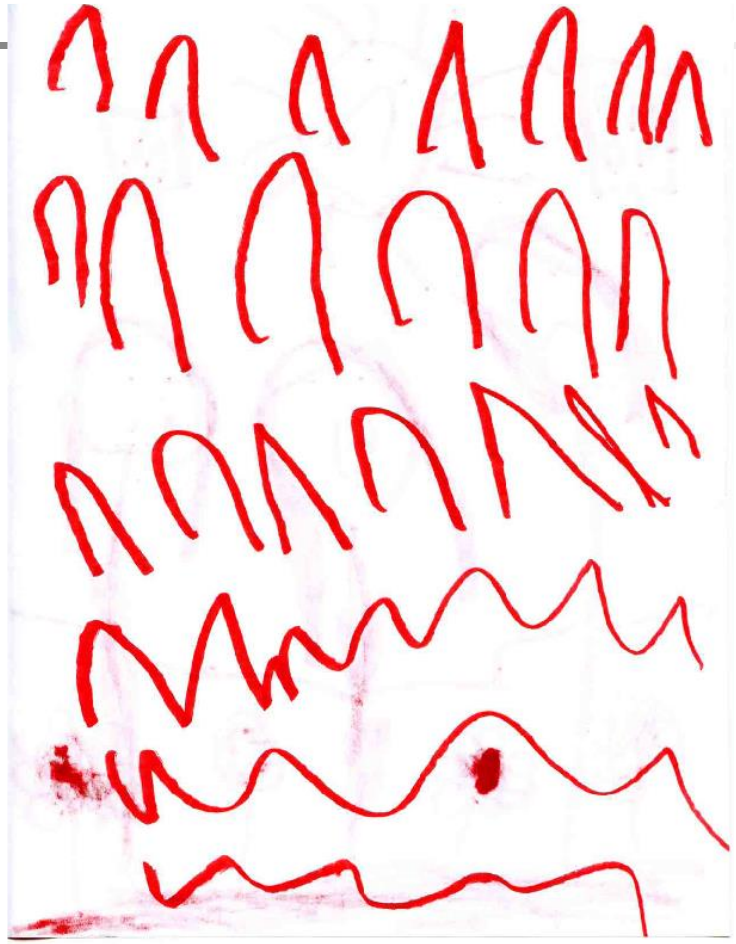
Listening

Speaking

Viewing

Visually Representing





# So, when does literacy begin?

- Already ready!
- Evidence suggests that even young infants are developing language specific recognition skills. (Kuhl, 1992, 2004)
- We know that shared book reading at 4 months is associated with better expressive language skills during the toddler years (Karras 2005).
- Emergent literacy (Marie Clay, 1966)
- Goal is developing along a continuum

# Ask yourself,

*Why do we read?*

# The purpose of literacy: Comprehension

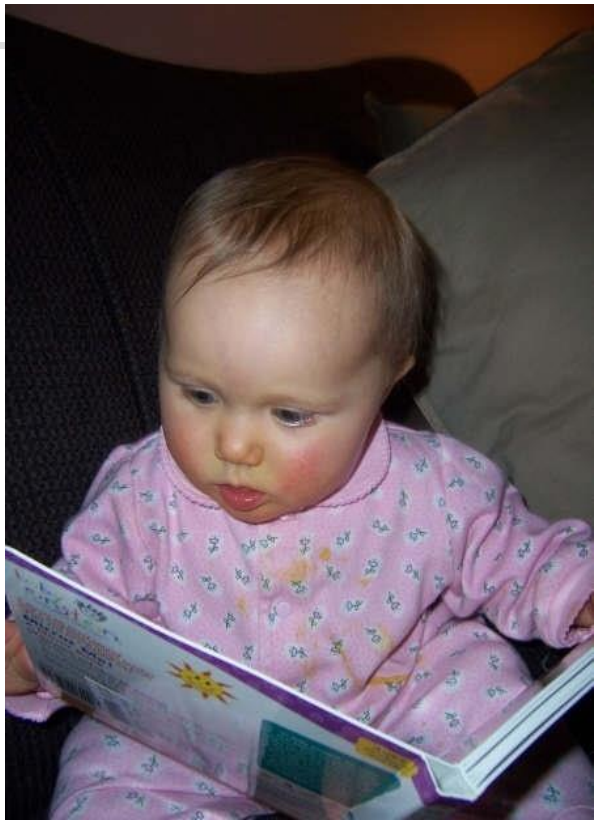
The ability to extract and construct meaning from text when reading or when read to

Requires:

- Language knowledge
- World knowledge
- Knowledge about text
- Knowledge about genre

# Brain scans reveal comprehension secrets!

- **Home Reading Environment and Brain Activation in Preschool Children Listening to Stories**
- John S. Hutton, Tzipi Horowitz-Kraus, Alan L. Mendelsohn, Tom DeWitt, Scott K. Holland,
- September, 2015, Pediatrics, vol. 136, issue 3
- In 19 preschool children listening to stories, greater home reading exposure is positively associated with activation of brain areas supporting mental imagery and narrative comprehension



# What is Informational text?

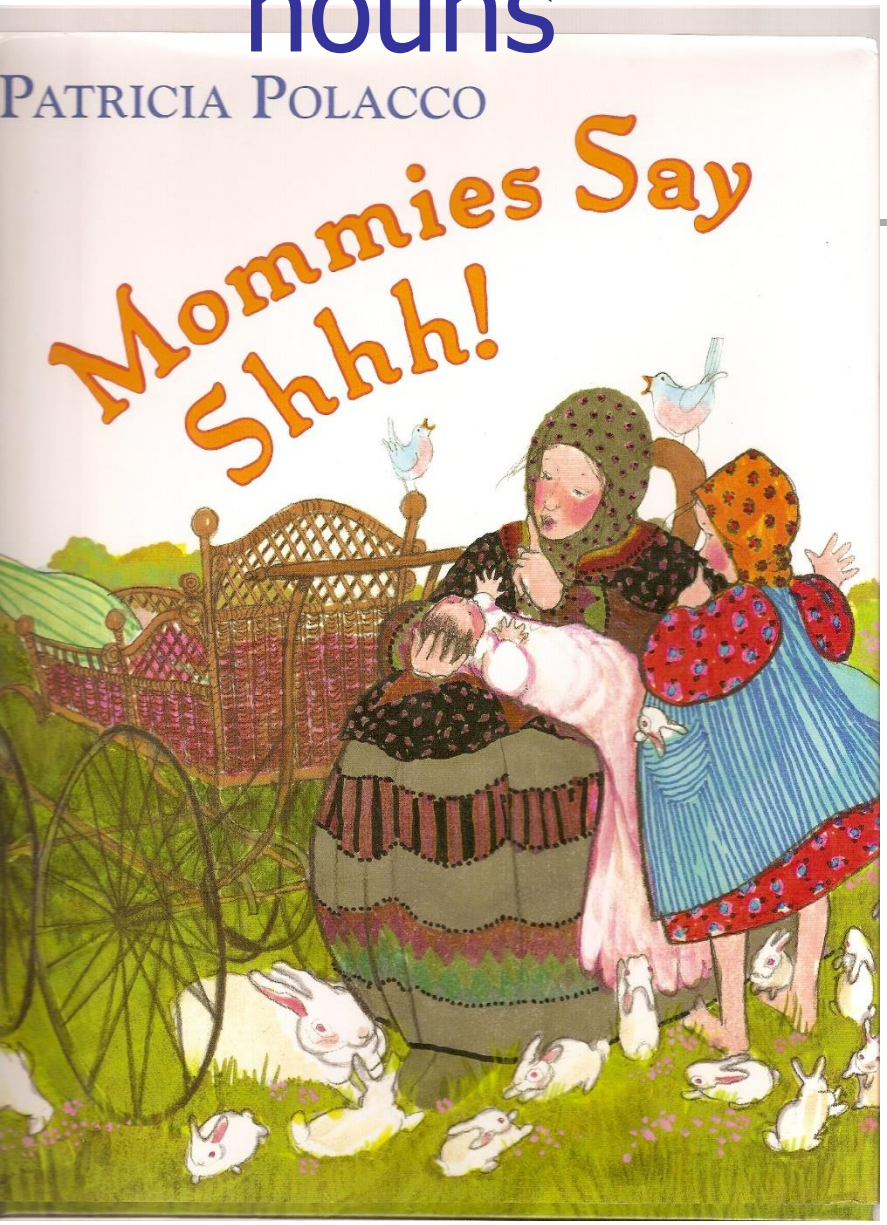
- Duke/Bennett-Armistead definition:
- Informational text is a **subset** of non-fiction
- The **purpose** of info text is primarily to inform about the natural or social world
- The **structure** of informational text is different from other forms of text in several important ways:

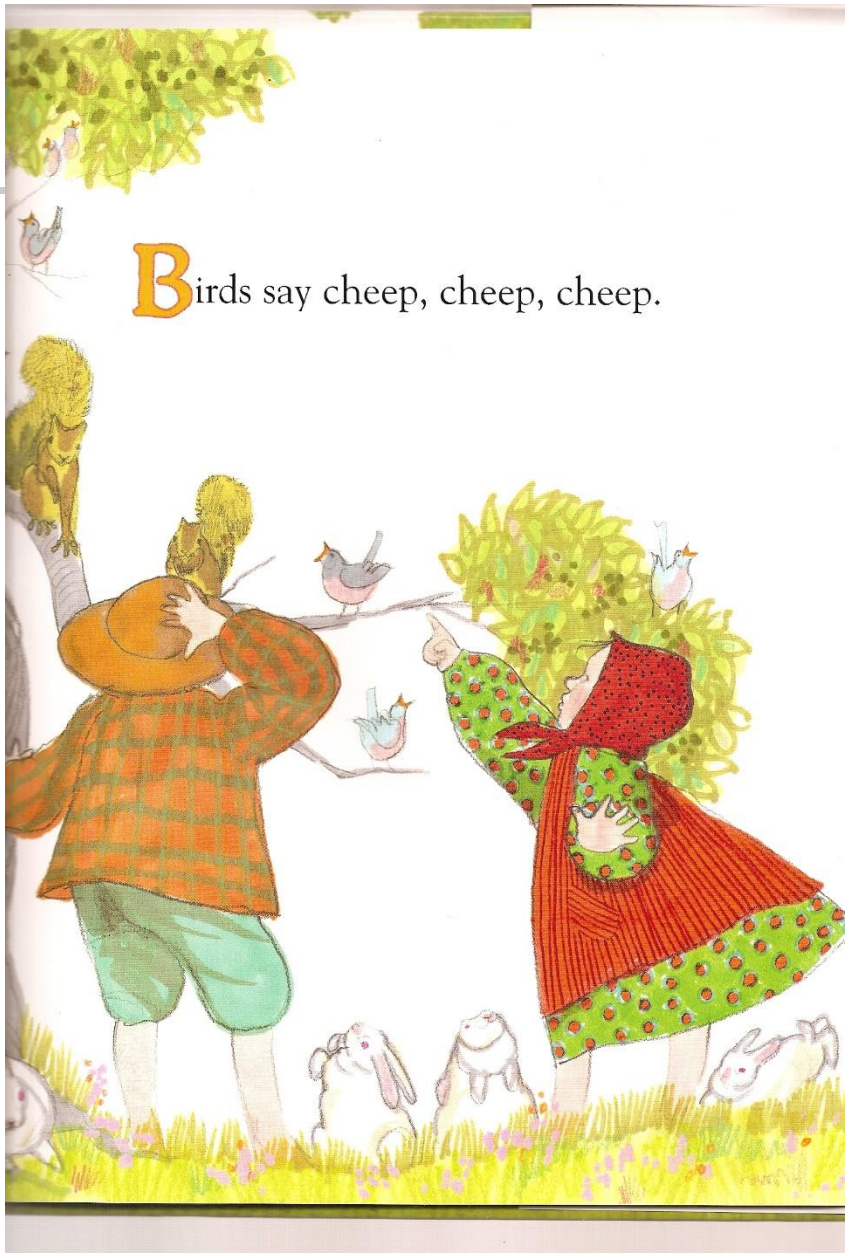
# Informational Text Structure

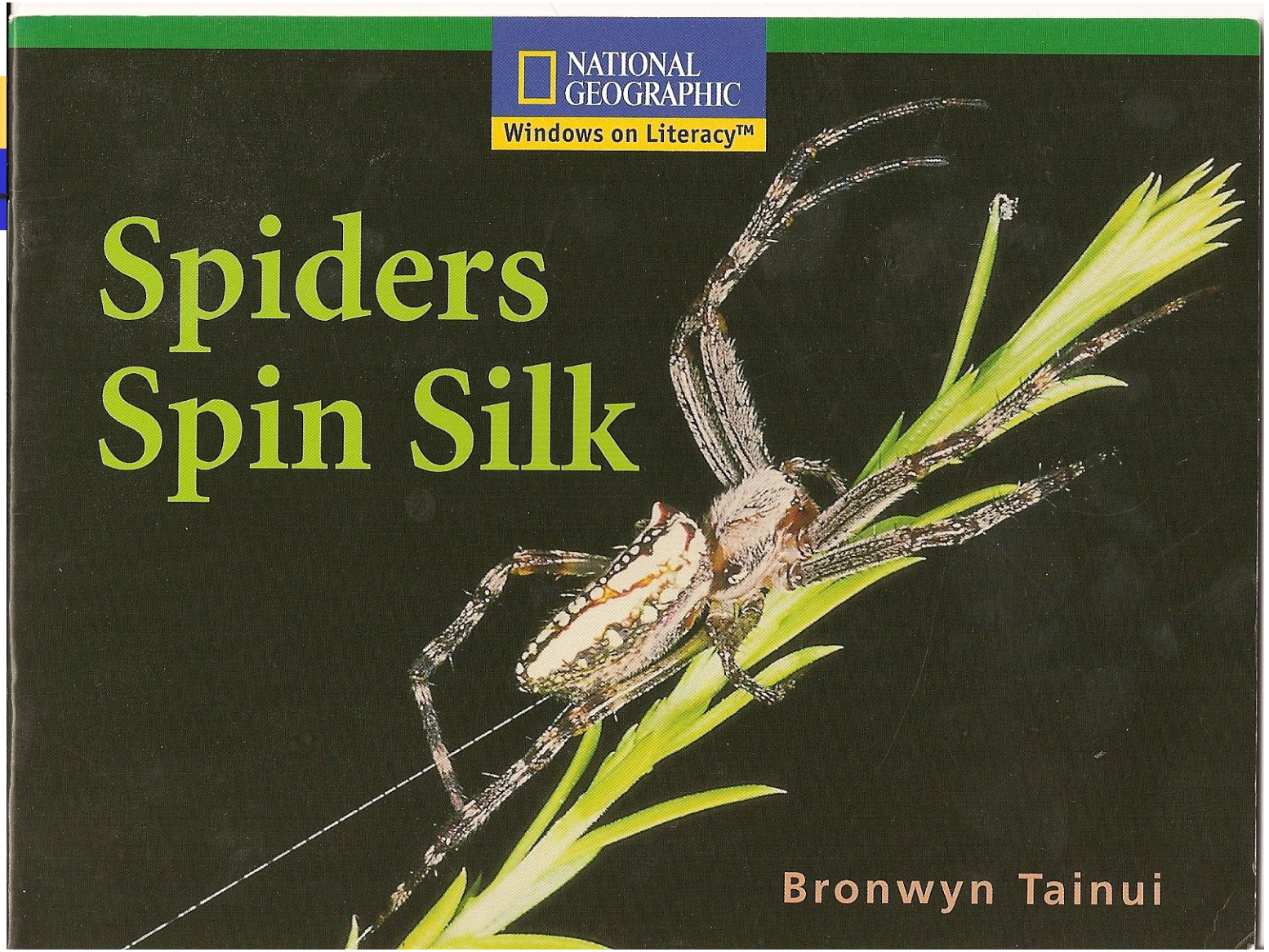
- Contains timeless verbs
- Contains generic nouns
- May be linear or non-linear in nature
- Compare/contrast, cause/effect, problem/solution
- May be read as a whole or in parts
- Some examples: "All about…" books,

  Question and Answer books, most reference books

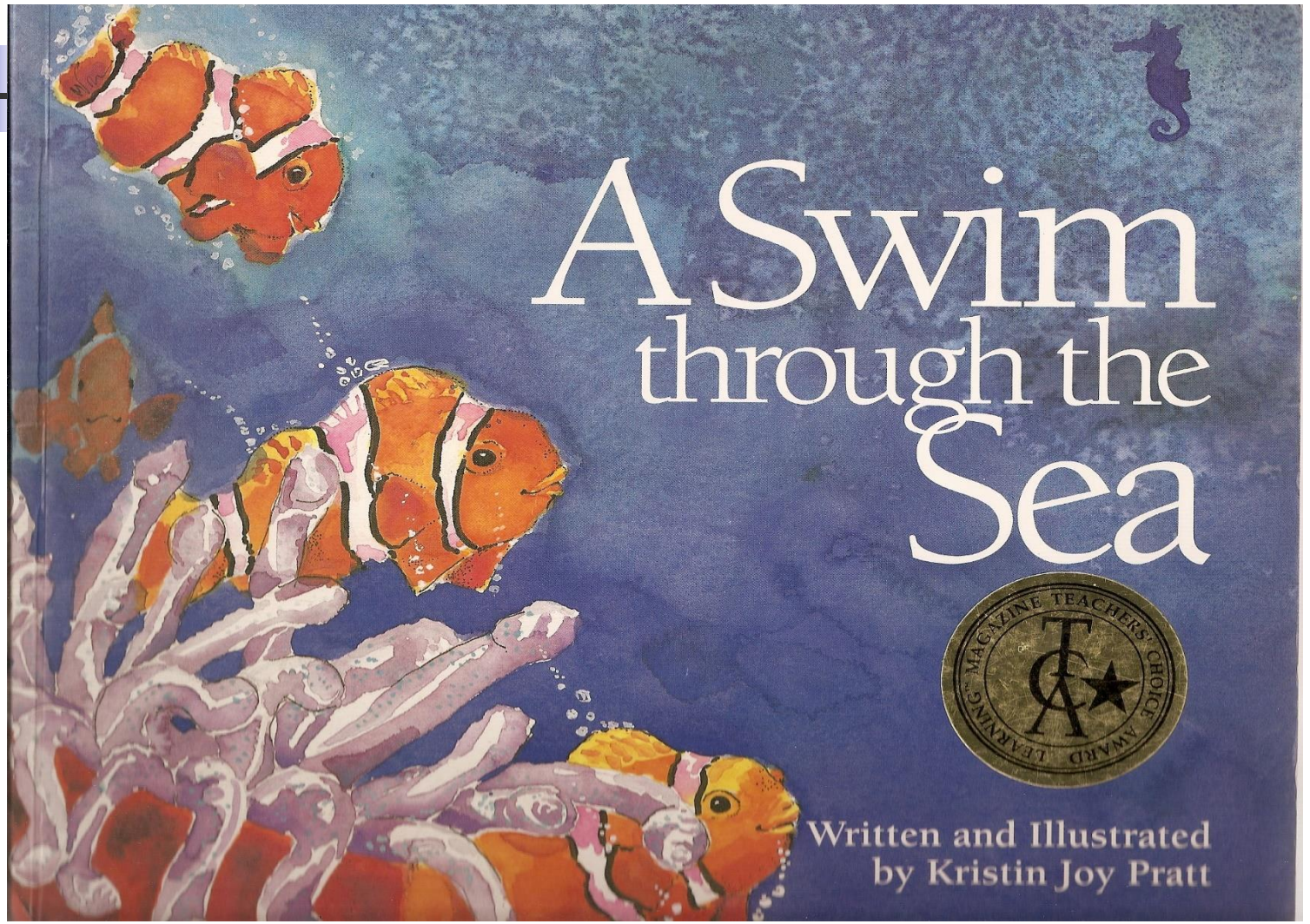
# Timeless verbs and generic nouns




NATIONAL GEOGRAPHIC
Windows on Literacy™
Spiders Spin Silk
Bronwyn Tainui

# Linear or non linear



# K

## He'd keep a close eye on a creeping crimson Kelp Crab,

The kelp crab lives in forests of giant kelp that grow along the coasts of California, Brittany, and South America. The kelp crab occupies the mid-water and upper portion of the plant, where it finds food and protection in the dense growth. More than 800 species of marine animals can live in one healthy forest of giant kelp. A single plant may sustain more than a million organisms. The kelp plant, when harvested and processed, prevents crystals from forming in ice cream and gives paint and toothpaste a creamy texture. Extracts from brown kelp are found in over 300 products used by people. Fortunately, giant kelp recovers rapidly from harvesting, growing one to two feet every day.

# K

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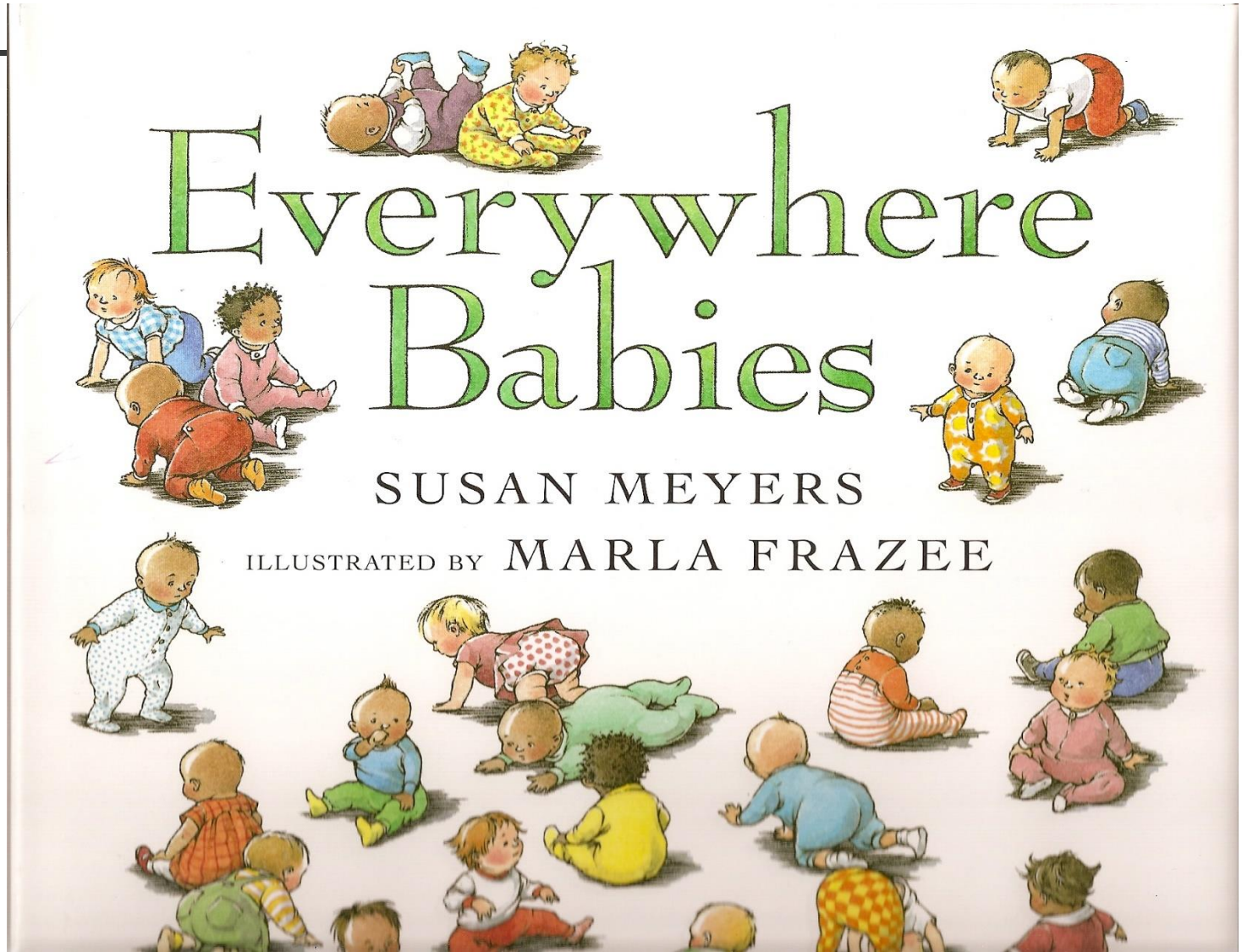
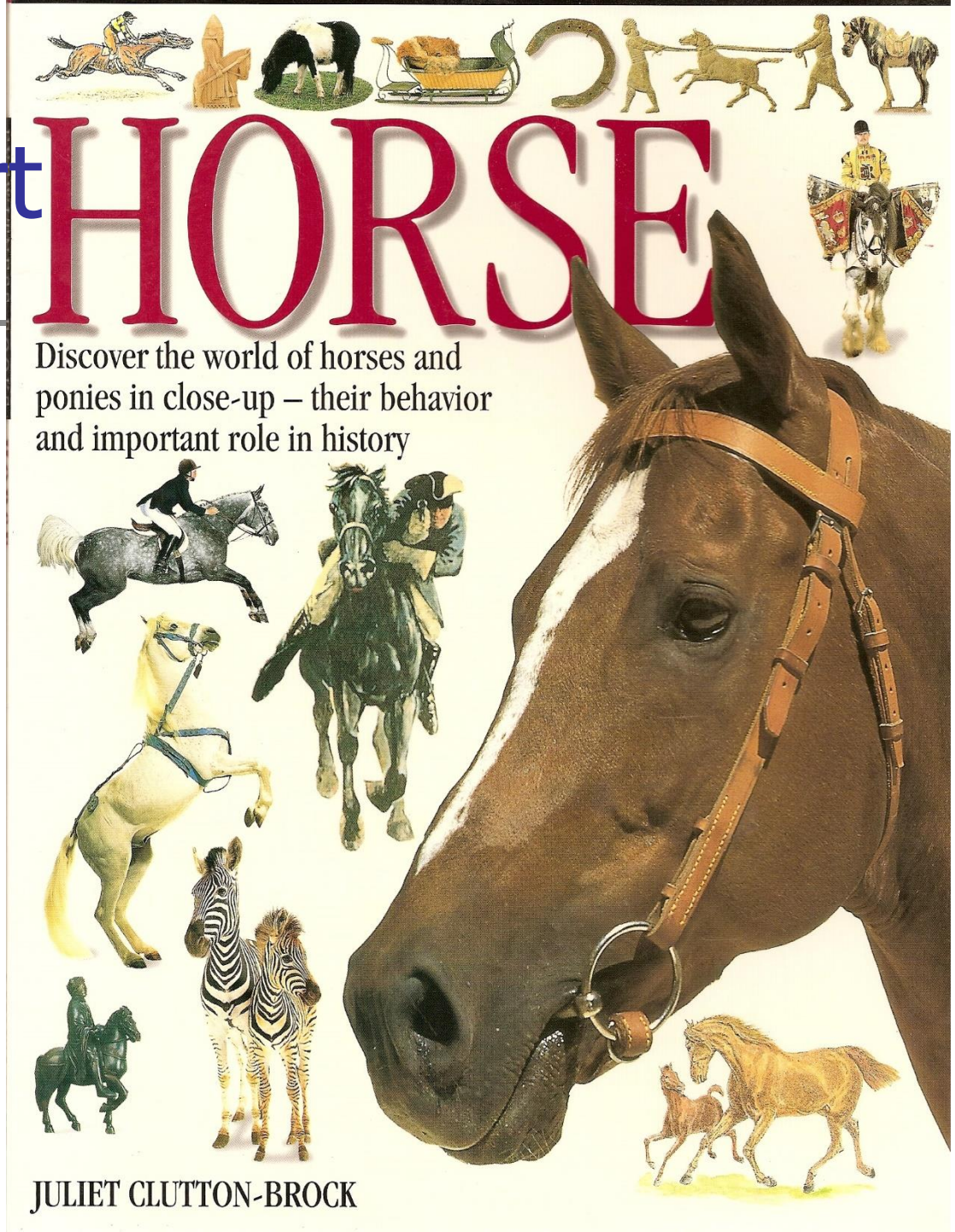
# Compare/contrast, cause/effect, problem/solution

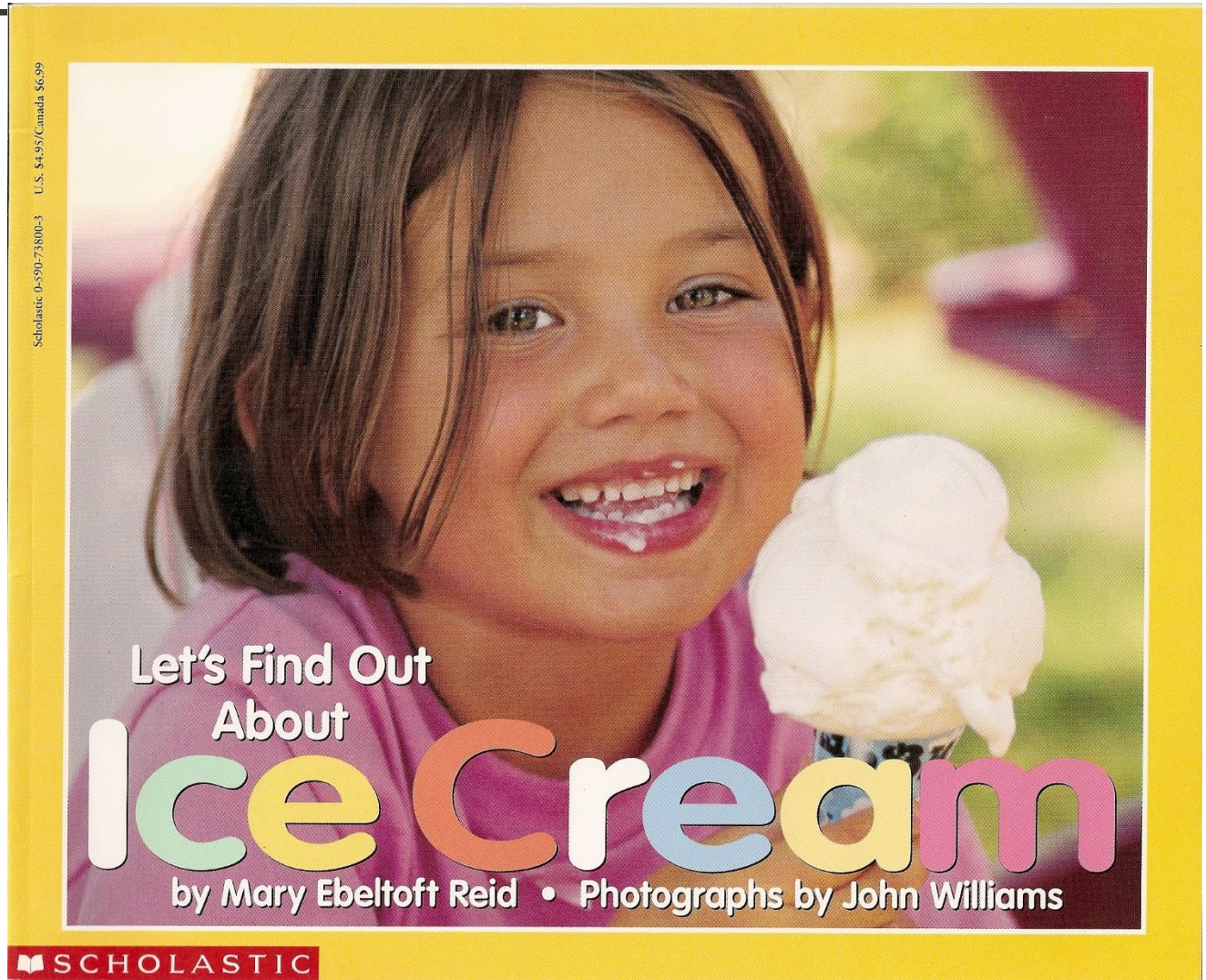


# Whole or part



# Whole or part

# Some examples: "All about…" books, Question and Answer books, most reference books



# What are the features of informational text?

- Table of Contents
- Captions
- Headings
- Photos/Illustrations
- Topical
- Glossary
- Index
- Specialized vocab
- Bold or italicized type
- Graphical elements like tables, charts, graphs
- Classifications/ definitions

# Contents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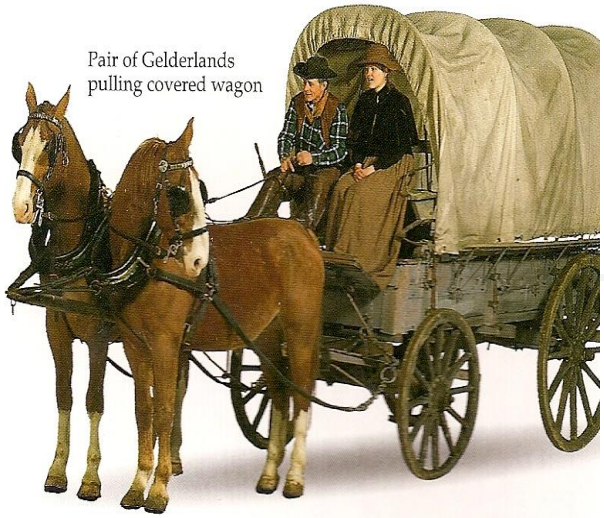

Pair of Gelderlands pulling covered wagon


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## Glossary

| | |
|---|---|
| **dragline** | the silk thread a spider spins behind itself |
| **insect** | small animal with six legs |
| **silk** | fine soft thread made by spiders |
| **spider** | small animal with eight legs that spins silk |
| **spider web** | sticky net made by a spider |
| **spinneret** | the part of the spider's body that spins silk |

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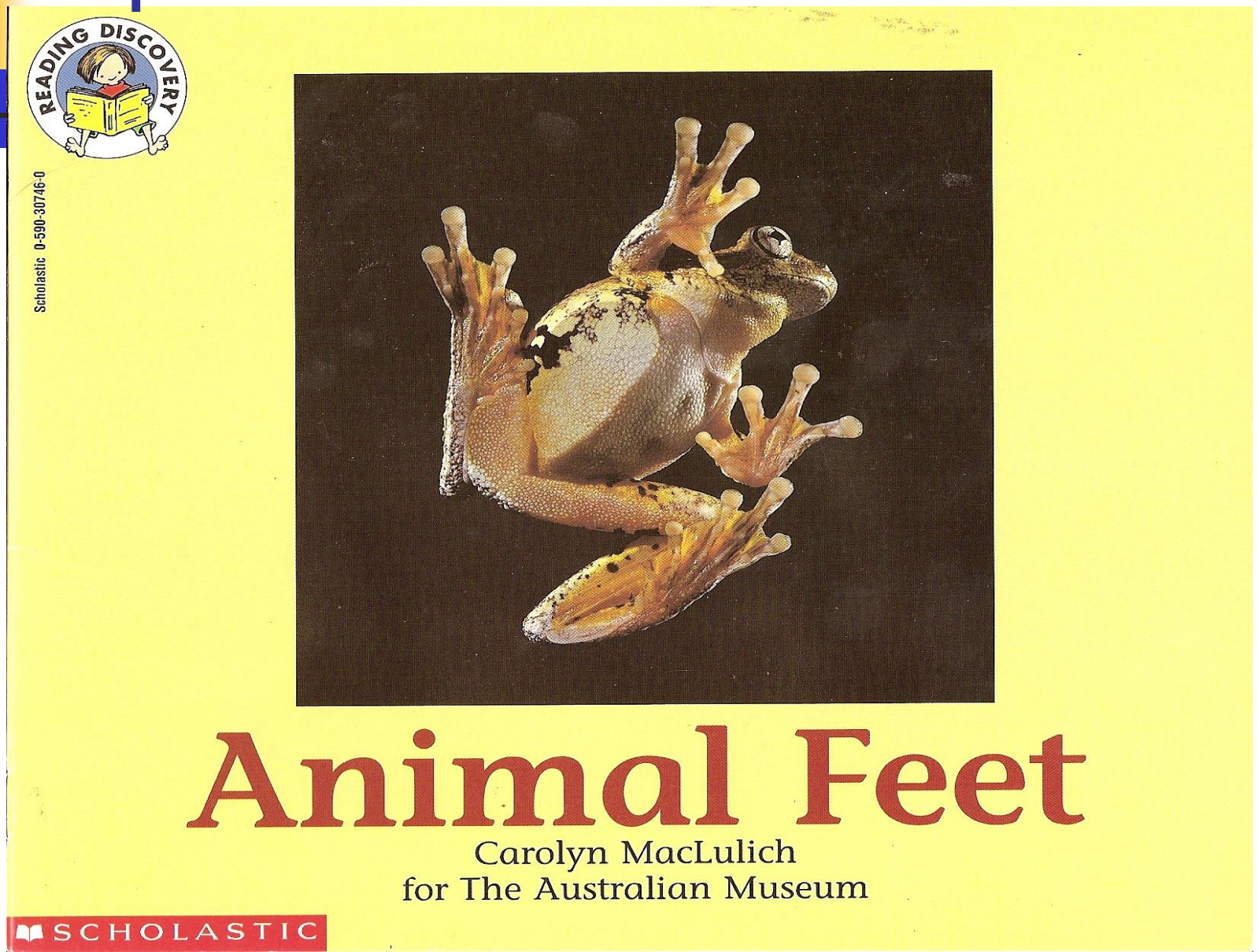
American Museum of Natural History: 8cl, 9br
Ardea: 14clt, 14cl, 16c, 17cr Jean-Paul Ferreo; 17bl Joanna van Grusen
Barnaby's Picture Library: 43cr, 45bl
Bridgeman Art Library: 41tl Archiv fur Kunst & Geschichte, Berlin; 34bl Biblioteca Nacional, Madrid; 24tr, 51cbr, 60c British Library; 49tl Guildhall Library; 39cb Harrogate Museums and Art Galleries; 35t, 41tl, 56tl, 59tc Private Collection; 57ct Smithsonian Institution, Washington, D.C.; 32bl Musée Condée,
63bc Bob Langrish
Mary Evans Picture Library: 23bl, 32tr
Robert Harding Picture Library: 21cr, 24cb, 48tr, 51bc, 56cr
Alan Hills: 20bl
Hirmer: 33tl
Michael Holford: 31tc, 44tl, 47tc, 59bl, 60bl
Hulton Picture Collection: 53b, 63bl
Frank Lane Picture Agency: 12br
Bob Langrish: 37tl, 40br, 41br, 54cr, 56cl, 57t, 58bc, 59tl, 59tr, 61tl, 61tc
The Mansell Collection: 42bl
Natural History Photographic Agency:

# Topical


READING DISCOVERY
Scholastic 0-590-30746-0
Animal Feet
Carolyn MacLulich
for The Australian Museum
SCHOLASTIC

1 BIRD
2 ROCKS & MINERALS
3 SKELETON
4 ARMS & ARMOR
5 TREE
6 POND & RIVER
7 BUTTERFLY & MOTH
8 SPORTS
9 SHELL
10 EARLY HUMANS
11 MAMMAL
12 MUSIC
13 DINOSAUR
14 PLANT
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16 FLAG
17 INSECT
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23 ANCIENT EGYPT
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25 CRYSTAL & GEM
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47 AZTEC, INCA & MAYA
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51 DESERT
52 PREHISTORIC LIFE
53 PYRAMID
54 JUNGLE
55 ANCIENT CHINA
56 ARCHEOLOGY
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70 WITCHES & MAGIC-MAKERS
71 SPACE EXPLORATION
72 SHIPWRECK

# Determining Quality Info text

- Accuracy
- Authorship
- Accessibility
- Appropriateness
- Appeal

- Text Type
- Recommendations from others
- YOUR STUDENTS!

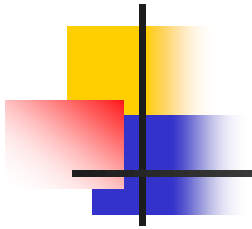
# Locating Quality Info Text

- Professional Books
- Non-fiction and Information Book Awards
- General Book Awards or Honors
- Publishers' catalogs
- Your Colleagues

# Including Info text in the print rich environment

- Classroom libraries-books, magazines, newspaper articles
- Print-based activities
- Environmental print on walls and other surfaces
- Incorporated into field trips, dramatic play and other times of the day than normally would be used

Recommended for ages 10 and up
muse
FROM THE PUBLISHERS OF CRICKET AND SMITHSONIAN MAGAZINE
VOLUME 9, NUMBER 5
MAY/JUNE 2005
Birds Doing Math?
page 8
KIDS DISCOVER
Jefferson
PEN-PAL PRESIDENTS
HOW TO WRITE 2 LETTERS AT ONCE
HE MADE CENTS OF THE DOLLAR
Life, Liberty and the pursuit of Happiness
May/June 2005
For ages 3 to 7
click
opening windows for young minds
Exploring Rocks
NATIONAL WILDLIFE FEDERATION
Your Big Backyard
December 2005
AEP
Best Educational Periodical
Panda Cub



# Developing World Knowledge

# Read aloud contributes to language development

- **Home reading environment is crucial for children's reading skills**
- V. Bergersen, 14 October 2015 The University of Stavanger
- studied 1171 first grade pupils and their parents from 19 schools in Rogaland county, Norway
- Found relationships between time reading aloud, parents reading themselves, number of books in the home and children’s vocabulary and phonological awareness in the first grade, predicting ease of literacy acquisition

# Features of Informational Text that can be Explored through Read Aloud:

- Genre specific language (generic nouns, timeless verbs)
- Captions
- Graphs
- Taxonomic language
- Para-linguistic devices (bold, italics, underlining)
- Use of realistic illustrations or photos
- Specialized or scientific vocabulary
- Assisting devices such as table of contents, index, glossary

# Yay, Dads!

- The Effects of Fathers' and Mothers' Reading to Their Children on Language Outcomes of Children Participating in Early Head Start in the United States
- Elisabeth Duursma
- Fathering, Fall, 2014
- *Examined paternal and maternal bookreading frequency among 430 low-income families and investigated whether paternal bookreading and maternal bookreading predicted children's early language and cognitive development and emergent literacy skills.*
- *Results demonstrated that mothers read more frequently to their toddlers than fathers but approximately 55% of fathers reported reading at least weekly to their children. Paternal bookreading at 24 and 36 months significantly predicted children's language and cognitive skills at age 36 months as well as their book knowledge at preK. Maternal bookreading was only a significant predictor of child cognitive skills at 36 months.*
- *Males also asked more and different kinds of questions than females.*

# Strategies for promoting World Knowledge

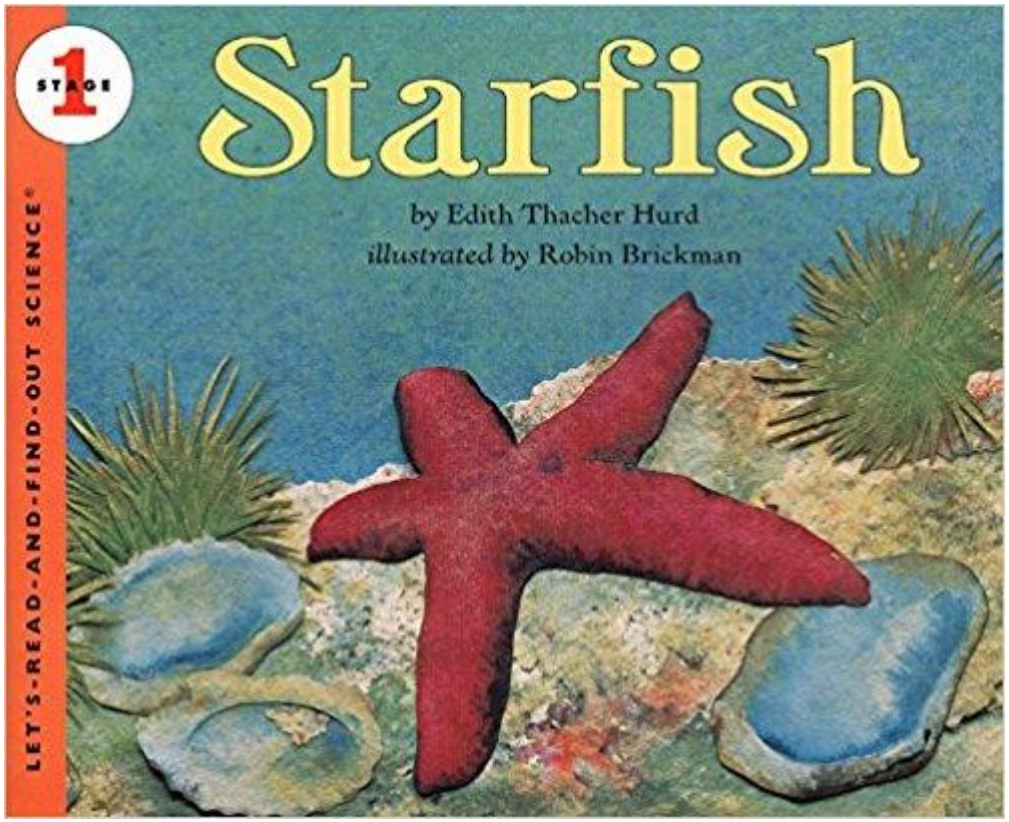
- Promoting Primary Experiences with the Natural and Social world
- Reading Aloud Informational Text
- Studying Content
- Expanding Dramatic Play Experiences

JK
JEFF KIRLIN
THE THING OF THE MOMENT
E.T.A. HOFFMANN
NUTCRACKER
PICTURES BY
MAURICE SENDAK

# Nature Movement

- Children and Nature Network (Richard Louv, Last Child in the Woods)
- http://www.childrenandnature.org/research/
- Build vocabulary
- Promote imaginative play
- Promote curiosity
- Build prior knowledge

MAINE


STAGE 1
Starfish
by Edith Thacher Hurd
illustrated by Robin Brickman
LET'S-READ-AND-FIND-OUT SCIENCE®

# So, what do researchers do?

- Ask questions!
- Find answers!

# What do we want to encourage parents to do?

- Support their child's interest(s)
- Read aloud informational text on the topic
- Explore the natural world with their child
- Recognize that they're ALREADY enriching their children's lives by providing experiences for them
- Honor the questioning child's curiosity

# Concluding thoughts:

- The purposeful mix of experiences, talk, questioning, and reading together can build in children
  - Curiosity
  - Skills to answer their own questions
  - Belief that they are capable of finding answers

*Understanding that they are researchers!*

# In Part 2:

- Building Knowledge of Genre and How Text Works
- Strategies for instruction with informational text

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## Building Children's World Knowledge through Family Partnerships and Meaningful Engagement with Informational Text (part 2)

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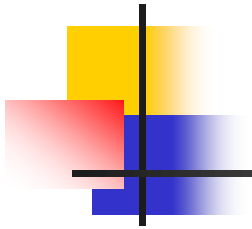
**University of Maine**



# Building Knowledge of Genre and How Text Works

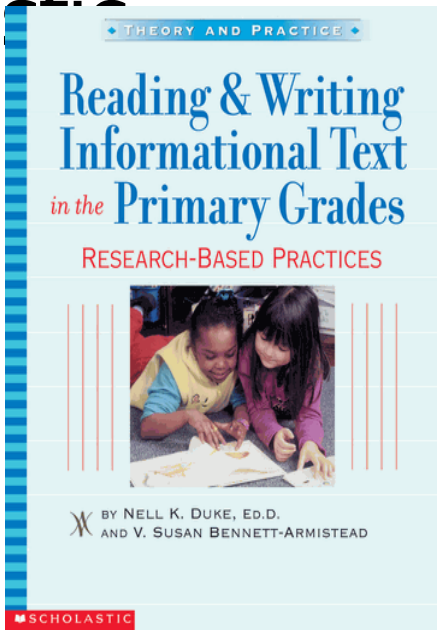
# But what to read?

- Patricia A. Ganea, Caitlin F. Canfield, Kadria Simons and Tommy Chou. **Do cavies talk?: The effect of anthropomorphic books on children's knowledge about animals**. *Frontiers in Psychology*, March 2014 DOI: 10.3389/fpsyg.2014.00283
- Studied 3, 4 and 5 year olds.
- Reading books with animals that act like people can lead to misinformation. "These results indicate that anthropomorphized animals in books may not only lead to less learning but also influence children's conceptual knowledge of animals."

PRESS
BUTTON
THE
THREE
LITTLE
PIGS

# Our study

- Duke, N.K. & Bennett-Armistead, (2003). *Reading and Writing Informational Text: research based practices*. New York: Scholastic



# Genre diversification

- Diversifying exposure to genres resulted in greater awareness of differences, similar reading levels, and great ability to produce diverse genres.

# Instruction with Informational text

- Teachers in our study used info text as a direct substitute for narrative throughout their day.
- They also used it to reinforce concepts introduced with narrative at other times of the day.
- The use of info text resulted in more talk about text features in general.

# Effective strategies for incorporating informational text

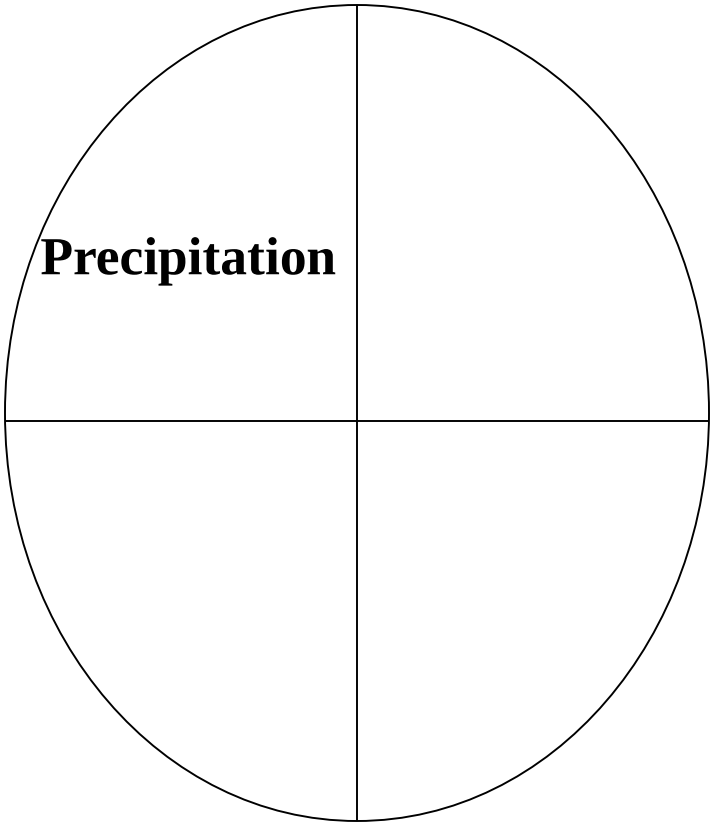
- Read aloud
- Think Aloud
- Question the Author (QtA)
- Experience-Text-Relationship (ETR)
- Graphic Organizers

# Graphic Organizers

- K-W-L-R
- Concept Wheel
- Concept of Definition
- Semantic Feature Analysis
- Venn Diagrams

# Concept Wheel

- Helps children come up with definitions that are meaningful to them
- Can be group wheels or individual wheels



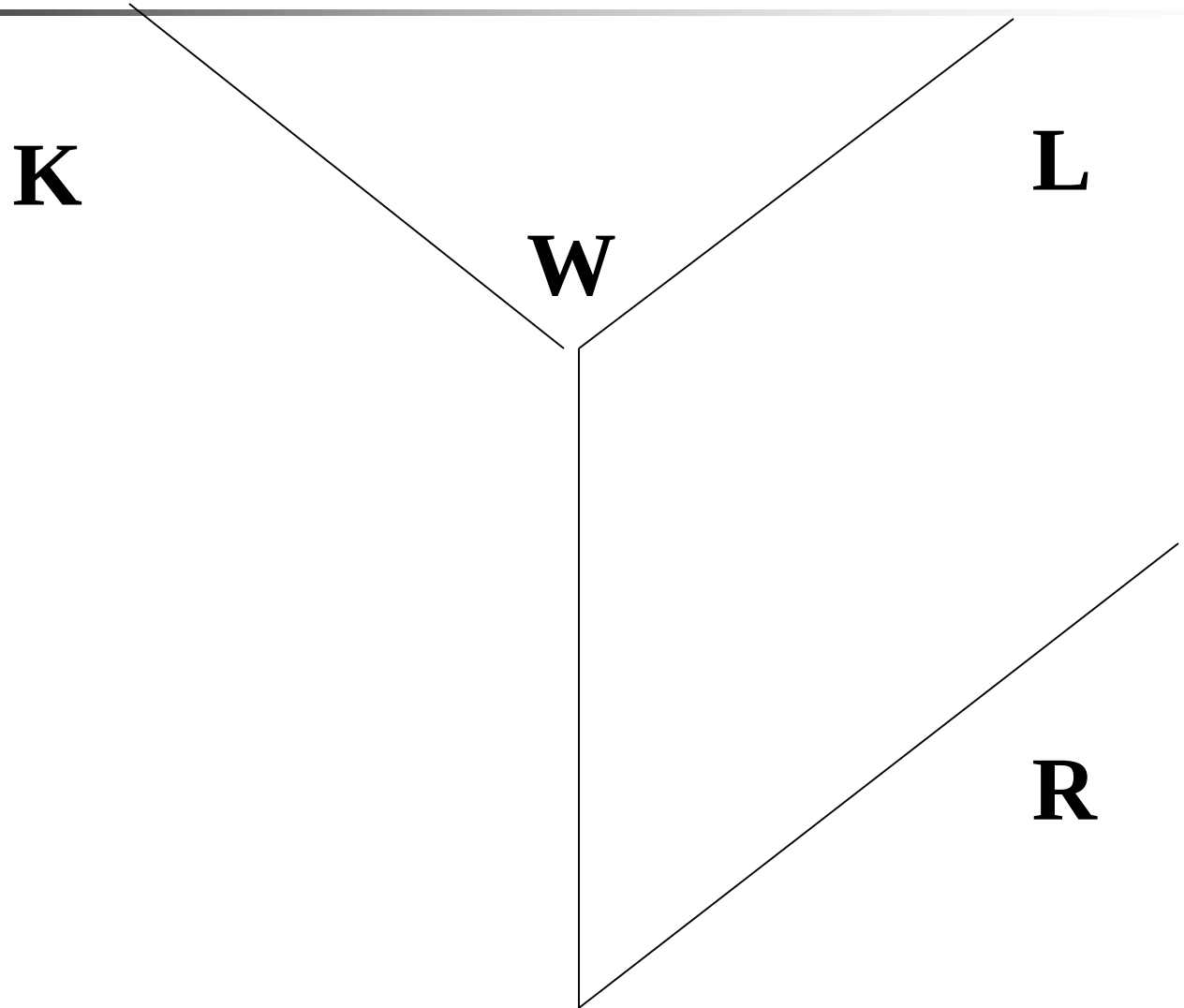
# K-W-L….R

- What do you **k**now?
- What do you **w**ant to know?
- What have we **l**earned?
- What **r**esources might we use to learn the answers to our questions?

# K-W-L-R (Ogle Version)

| K | W | L | R |
| --- | --- | --- | --- |

# K-W-L-R (B-A Version)



# Semantic Feature Analysis

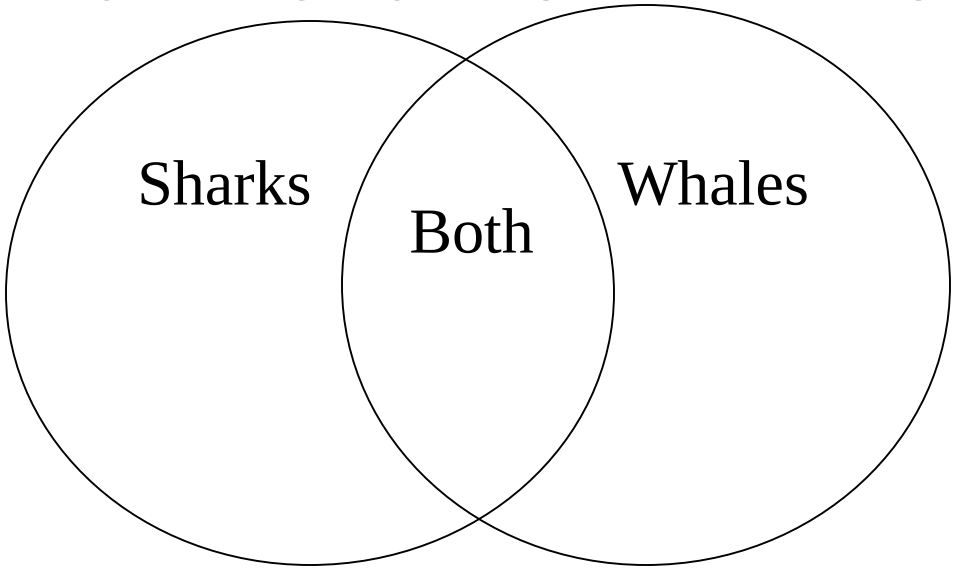
- Consider using your “W” questions/categories across the top of the matrix
- Younger children (Kdg.) can inform the matrix but may have a hard time using to write from

# Semantic Feature Analysis

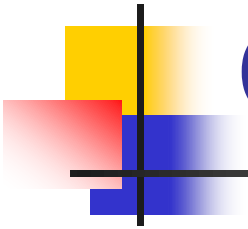
| **Bears** | Color? | Eat? | Habitat? |
|---|---|---|---|
| Black | | | |
| Grizzly | | | |
| Polar | | | |

# Venn Diagrams

- Compare two or more concepts/categories
- Consider using hula hoops with younger children and move the words around



# Concept of Definition



- Created by Taffy Raphael
- Four questions:
  - What is it? [category and description]
  - What's it like? [attributes]
  - Some examples
  - Compare examples

# Concept of Definition

**What is it?**

**Compare Examples**

**Bats**

**What's it like?**

**Some Examples**

# Genres to consider for pairing and comparing

- Basic concept books
- Wordless
- Narrative
- Poetry
- Fairy tale
- Informational
- Procedural
- Children's own writing
- Biographies
- Joke books
- Alphabet books

# Books in the home v. Parent's education level

- **Books in home as important as parents' education in determining children's education level**
- M.D.R. Evans, Jonathan Kelley, Joanna Sikora, Donald J. Treiman. **Family scholarly culture and educational success: Books and schooling in 27 nations**. *Research in Social Stratification and Mobility*, 2010; DOI: 10.1016/j.rssm.2010.01.002
- 20 year, multi-country study, found that regardless of location, having books in the home propelled children toward higher levels of education, and while as few as 20 books can make a difference, more is better, having books in the home is TWICE as important as the father's educational level in predicting a child's likelihood of obtaining more schooling, the book effect was even more compelling among low income families

# What do we want parents (and teachers)to do?

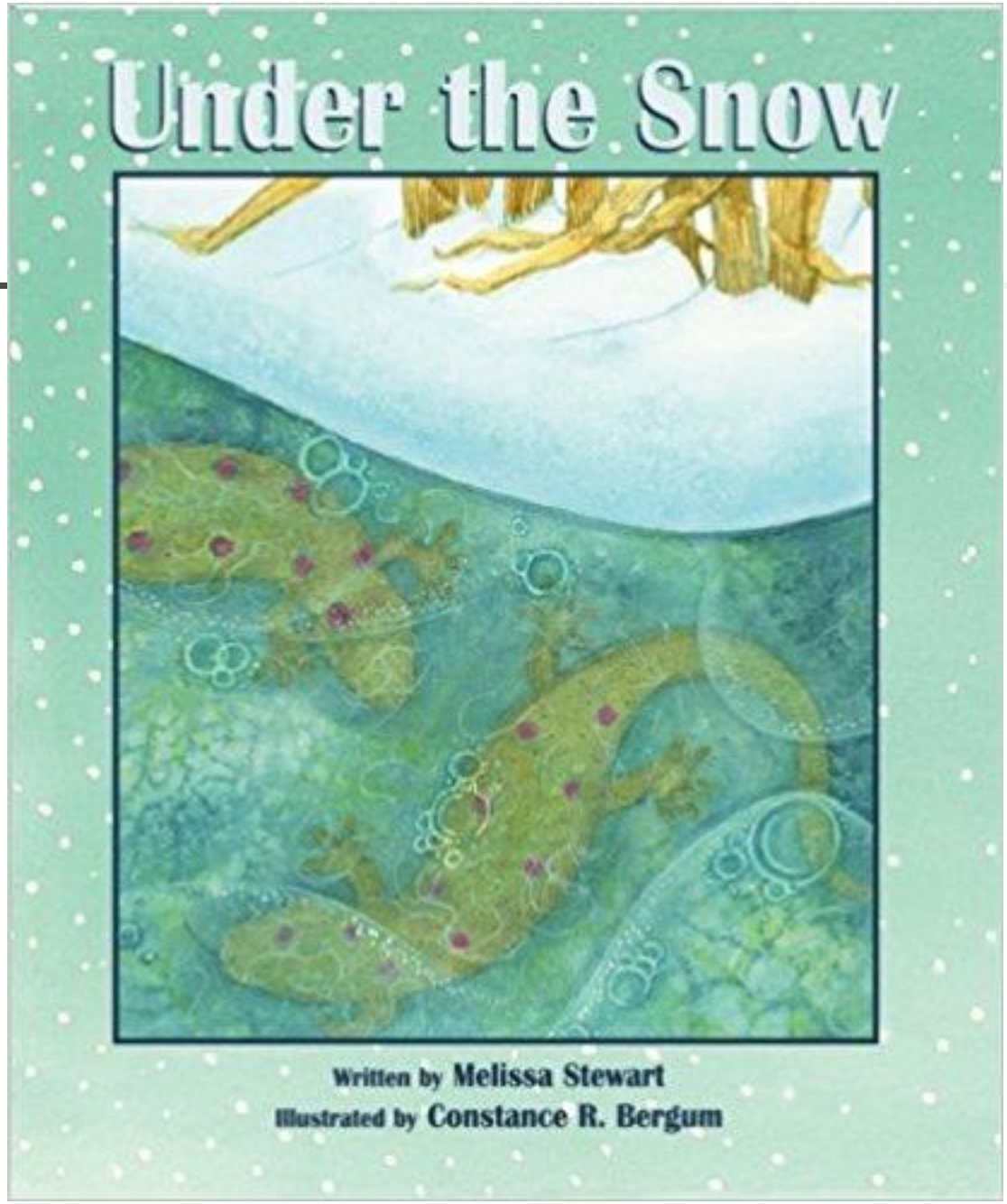
- Read to their children but dialogically!
- Build children's world knowledge through read aloud of diverse genres, play, and primary experiences.
- Help children make connections between text and experiences "This reminds me of…"
- Build children's vocabulary and knowledge through read aloud and talking, talking, talking WITH their children. Asking research provoking questions, such as

"Why do you think…"

"What will happen if…."

"How do you think….."

- Create a climate of curiosity!


Under the Snow
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