











Science and Math Through Literature











Why Picture Books?

- Children are pleasure seekers
- Not threatening
- Participative sport
- Trick them into learning
- Involve parents

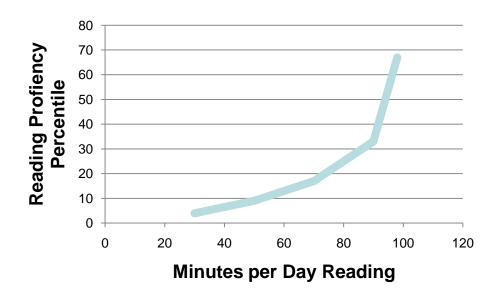


- > Learn from the book
- ➤ Online Support
 - Multi-discipline, multi-curricular
 - Internet explosion



Three Correlations

- Reading Fun to Reading Time
- Reading Time to Reading Proficiency



 Reading Proficiency to overall ability to learn Math, Science ... anything!

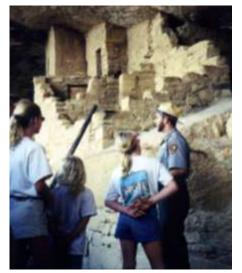


Concept Origin

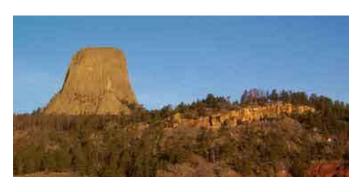










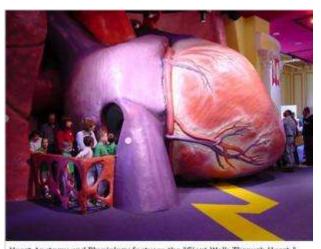








Field Trips



Heart Anatomy and Physiology features the "Giant Walk-Through Heart," originally built in 1954 as a temporary exhibit entitled "The Engine of Life,"

- Aquariums & Zoos
- Discovery Museum
- Sciences Museums
- History Centers
- Space Camps









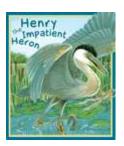


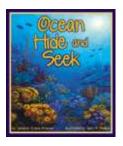


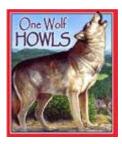
• 45 Titles & 11 more in 2010











- Hardcover & Paperback
- eBooks
- Site Licenses

Stuffed Animals



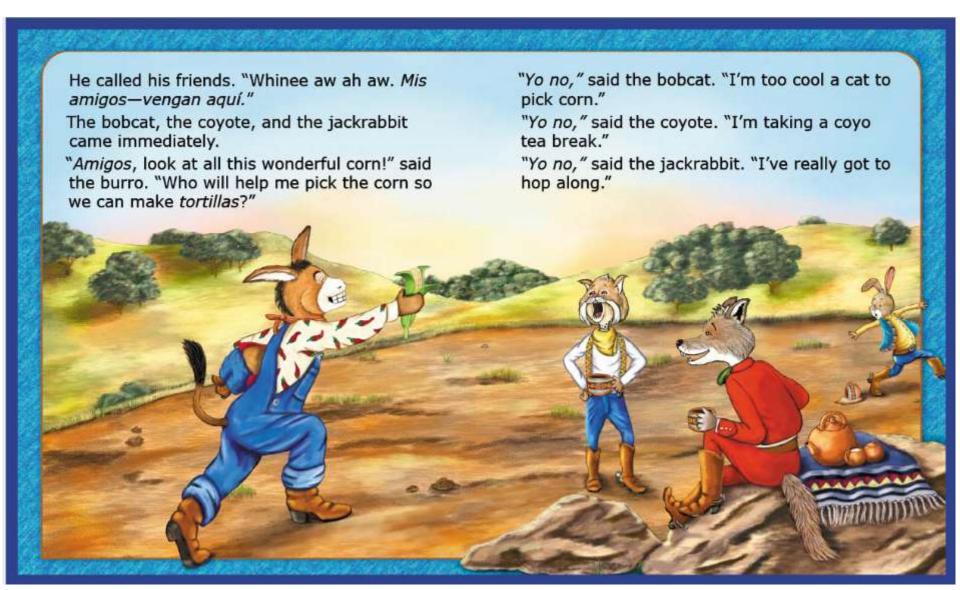


From the book itself

- Reading Skills
 - Word association realistic art
 - Speed and comprehension
- Story line and imagery
 - Entertain
 - Educate
 - Life Lessons
- For Creative Minds (education section)

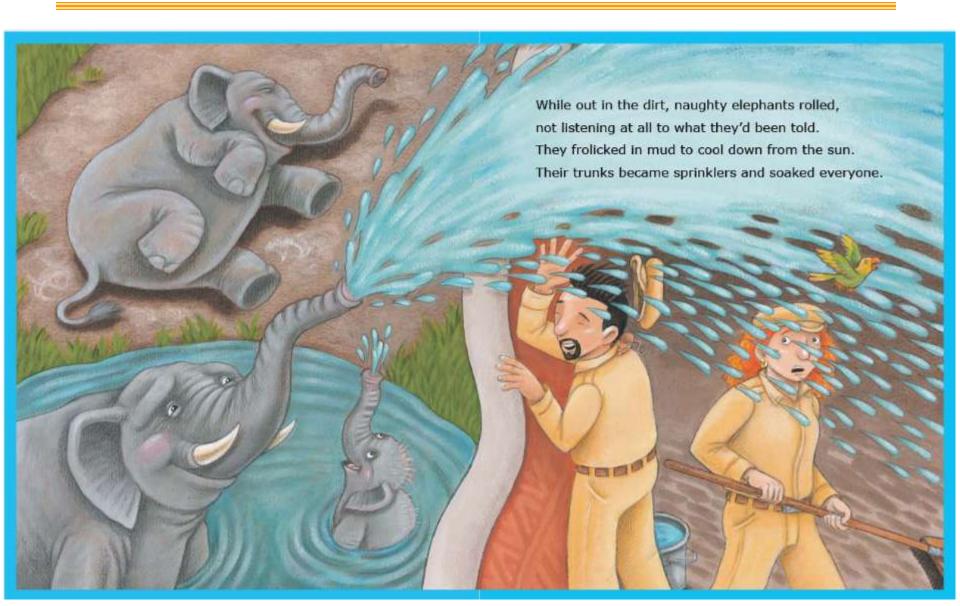


Entertain: Burros Tortillas



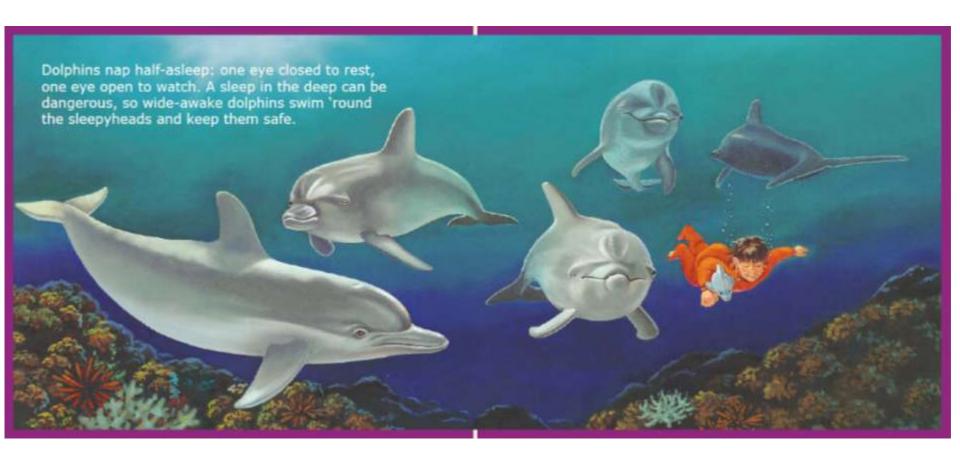


Entertain: Zoo Day



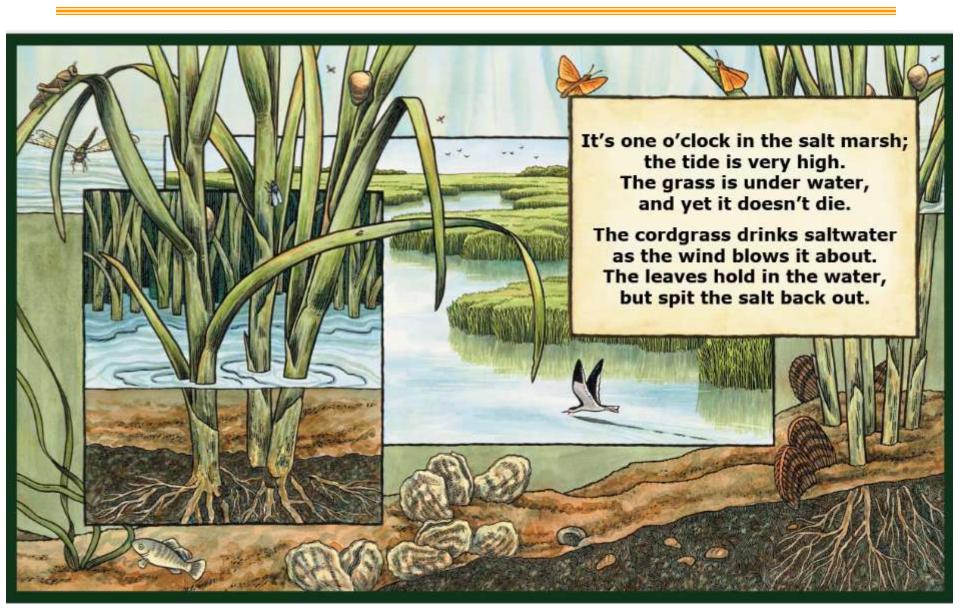


Educate: Water Beds





Educate: A Day in the Salt Marsh

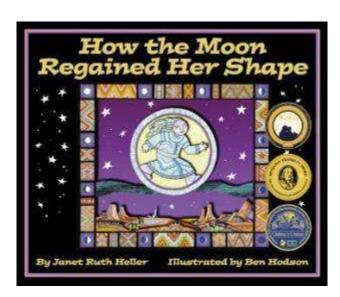


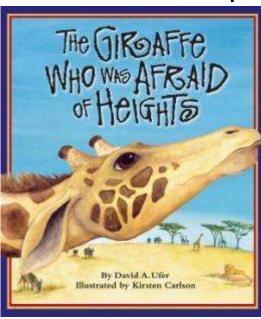


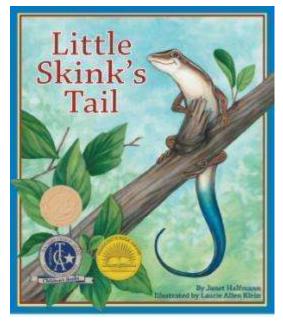
Life Lessons

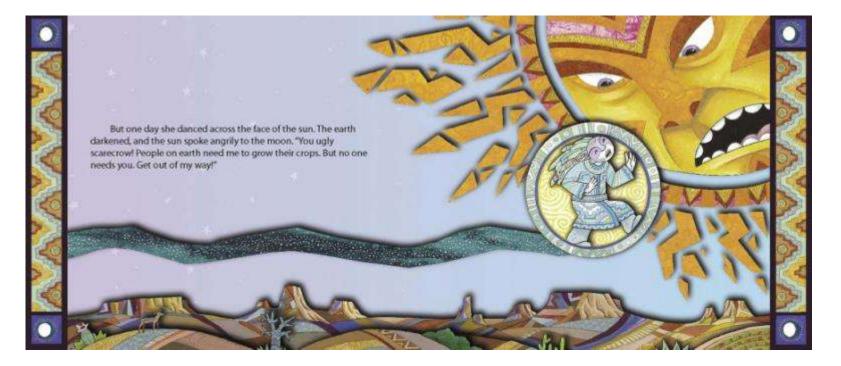
- Dealing with Bullies
- Overcoming fears
- Practice makes perfect
- Caring for nature
- Be a good friend

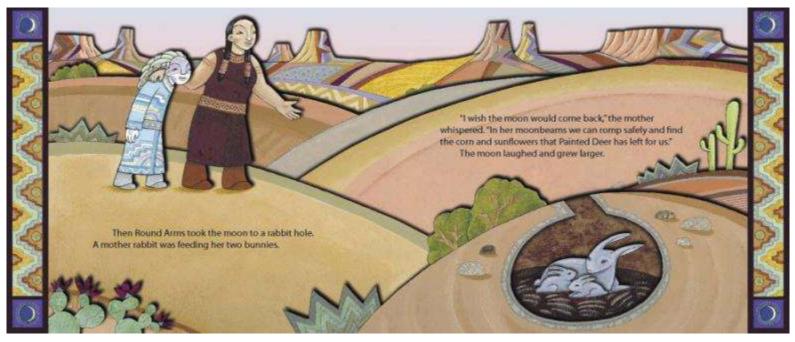
- Be happy with yourself
- New sibling
- Listen and follow directions
- Do the right things
- Respect for elders





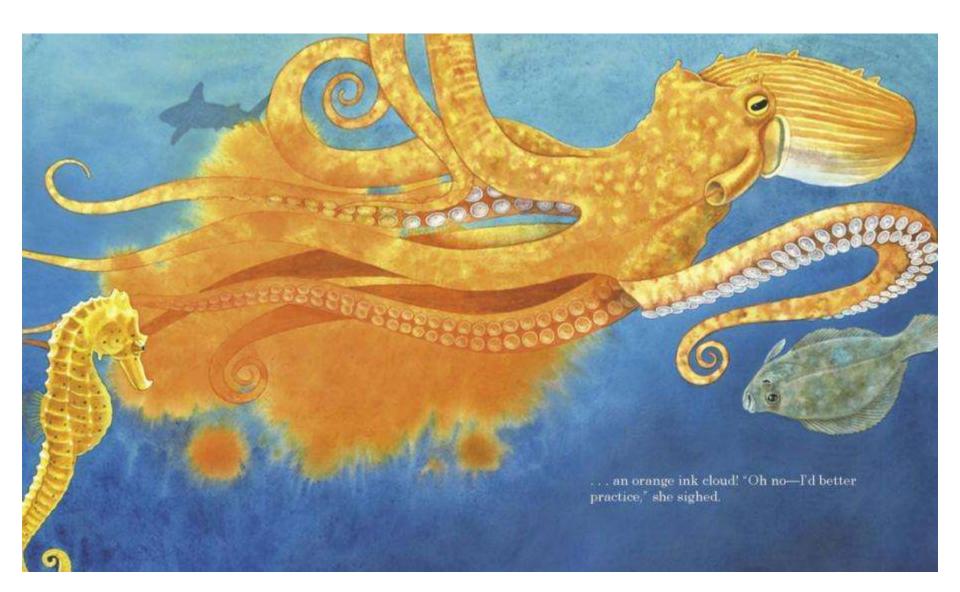


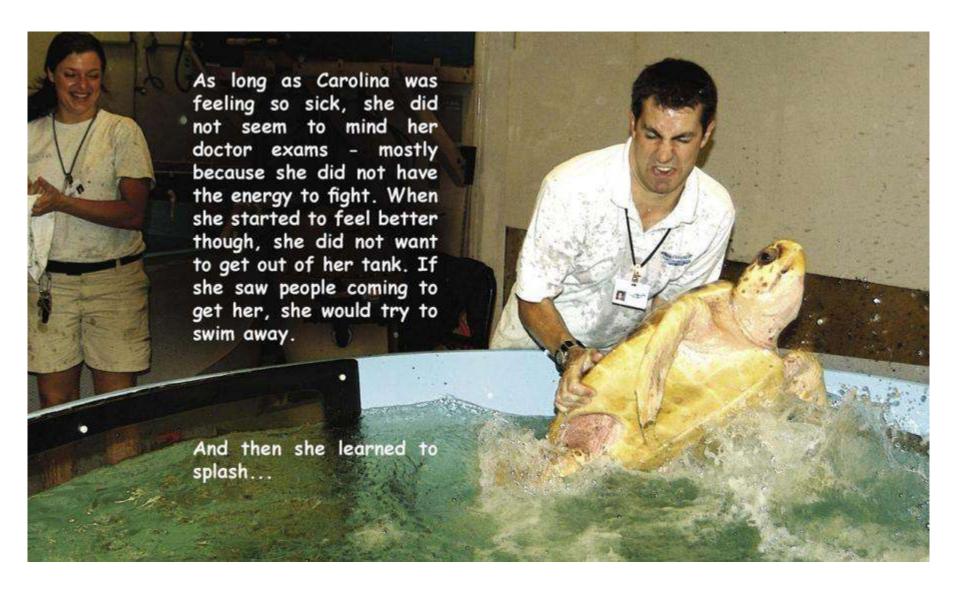


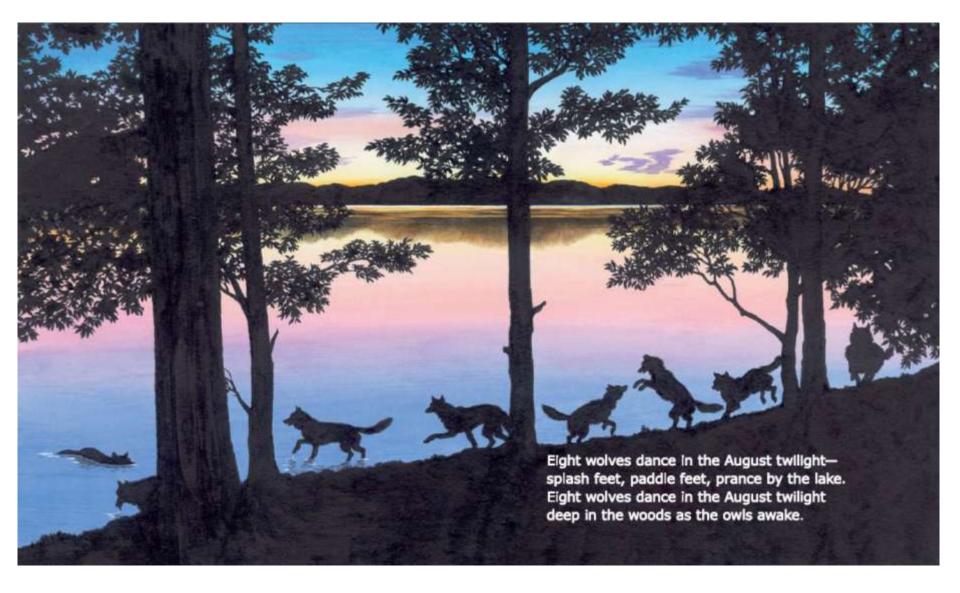




Life Lesson: Octavia









For Creative Minds

For Creative Minds

The "For Creative Minds" educational section may be photocopied or printed from our website by the owner of this book for educational, non-commercial uses. Additional "Learning Links" and cross-curricular "Teaching Activities" are also available online. Go to www.SylvanDellPublishing.com and click on the book's cover to find all the links.

Platypus Fun Facts



Outback Animal Adaptation Activity

a. Platypus (fur) The duck-like bill is both a nose and mouth. This long, funny-looking bill is packed with thousands of sensors. They help the platypus find food by sensing any movement made by prey (worms and other little animals).



b. Brushtall Possum (fur)

These marsupials have prehensile tails that are used like hands to grab and hold onto things. They also have very sharp claws to hold onto tree branches. They eat leaves, flowers, fruits, and seeds.



c. Kookaburra (feathers)

Kookaburras are known for their loud, "laughing" call at dawn and dusk. They have claws facing forward and backward to help hold onto tree branches. They eat worms, bugs, and other small animals.



d. Wallaby (fur)

These marsupials use their tails to help balance. They also use their tails to steer when they jump forward. They eat a variety of plants.



e. Blue-Tongued Skink (scaly skin)

When scared, they open their mouths wide, and their bright blue tongues scare off predators. They eat both plants and small animals.



f. Bandicoot (fur)

These marsupials use their snouts to dig for food. They smell and hear very well but don't see very well. They eat both plants and small animals.



Which animals are carnivores (meat eaters), herbivores (plant eaters), or omnivores (both plants and animals)? What are you?

()

From the Internet

- For Creative Minds
- Interactive Quizzes
- Teaching Activities
- Research related websites
- AR & Reading Counts
- Alignment to Standards
- Audiobooks
- Trailers
- Calendar
- eBooks



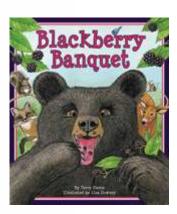
Interactive Quizzes





Teaching Activities

| Questions bef | fore & after reading the book | 2 |
|---------------|--|----|
| • | Questions to ask before reading the book | |
| • | What do children already know? With charts | |
| | After reading the book - writing prompts & thinking it through | |
| • | Comprehension questions | |
| • | Food for thought | |
| • | What do children already know activity conclusion | |
| Language Arts | <u>s</u> | 7 |
| | Developing a "word wall" | |
| | Vocabulary game | |
| • | Putting it all together | |
| • | Suggested vocabulary list | |
| • | Silly sentence structure activity | |
| • | Sequencing sentence strips | |
| • | Word search | |
| Science | | 14 |
| | Classifying animals | |
| | Animal classification chart at class level (vertebrates) | |
| | Activity or sorting cards | |
| | Animal card games | |
| | A day in the life of | |
| • | Life cycle | |
| • | Adaptations | |
| • | Science journal | |
| • | Nature observation notebook | |
| • | Venn diagram | |
| Math | | 24 |
| | Blackberry math | |
| Research & G | • | 26 |
| | Map identification/geography questions | |
| Other | , | 27 |
| | Coloring pages | |





What Do the Children Already Know?

| What do I think I know? | Yes | No | <u>Verified</u> |
|--|-----|----|--|
| What are some names used for baby animals? | | | Text Illustration Info in FCM Other |
| What are some animals that eat plants? | | | Text Illustration Info in FCM Other |
| Is a peacock a male, female or either one? | | | Text Illustration Info in FCM Other |
| What is a neonate? | | | Text Illustration Info in FCM Other |

After Reading Exercises

After reading the book – writing prompts & thinking it through

- Did the cover "tell" you what the book was about?
- If not, how does the illustration on the front relate to the story?
- Draw your own cover.
- Write a song about the baby animals to the tune of "Happy Birthday to You."
- Can you think of another title for the book?
- Did the illustrator include anything in the pictures that were not in the story or are there things hidden in the art? (red balloon)

Re-read the book looking for more information

Go back and re-read the book studying each page carefully.

- What, if any, facts are mentioned in the text or shown in the illustrations?
 - What are the pandas eating?
 - What are the elephants doing with their trunks?
 - What is an adult female peafowl called?
 - What is an adult male peafowl called?
 - What are some of the ways the monkeys are holding onto the tree branches?



Vocabulary List



Suggested vocabulary list

| Nouns | Verbs | Adjectives |
|--------------|----------|------------|
| walrus | paddling | white |
| Inuit (not | | |
| Eskimo) | kayaking | icy |
| seal | hunting | cold |
| beluga whale | flying | blue |
| narwhal | swimming | furry |
| bird | resting | arctic |
| hunter | standing | small |
| fur | splashed | quick |
| blubber | cracked | blubbery |
| flukes | chase | |

| Nouns | Verbs |
|---------------|--------|
| fins | circle |
| blow hole | float |
| nose | bounce |
| heavy clothes | hop |
| padded feet | stop |
| tusks | |
| flippers | |
| adaptations | |
| North Pole | |
| ice | |
| iceberg | |
| ice pack | |
| kayak | |
| permafrost | |
| migrate | |

Silly sentence structure activity

This is a fun activity that develops both an understanding of sentence structure and the science subject. Use words from the "word wall" to fill in the blanks. After completing silly sentences for fun, have children try to fill in the proper words by looking for the information in the book.

| Like other owls, they are | |
|--|------------------------|
| at night and verb | during the day. |
| A few hours after eating, they | |
| of, | verb noun , and |
| noun noun other undigested parts of their mea | |
| Sharp, curveds | (claws) are used to |
| noun | |
| noun | whole, but will larger |
| animals apart using their | noun noun noun |
| Large,adjective | help them to see at |
| noun | |

Word search

Find the hidden words. Even non-reading children can try to match letters to letters to find the words! Easy – words go up to down or left to right.

For older children, identify the coordinates of the first letter in each word (number, letter).

| | Α | В | С | D | Ε | F | G | Н | - 1 | J |
|--|---|---|---|---|---|---|--------|---|-----|---|
| 1 | Α | Υ | 0 | М | В | E | В | Α | В | Υ |
| 2 | Т | S | В | 0 | Υ | F | G | Α | R | D |
| 3 | F | Е | Α | Т | Н | Е | R | S | Α | В |
| 4 | I | Г | S | Η | 0 | Α | Е | Τ | Ν | Е |
| 5 | R | С | K | Е | R | Т | Α | S | C | E |
| 6 | E | С | Е | R | N | Н | Т | W | Н | N |
| 7 | М | V | T | K | Е | Е | F | С | Е | Т |
| 8 | Α | 0 | 0 | I | D | R | Α | 0 | R | Α |
| 9 | N | W | D | Ν | Ε | S | Т | R | Е | Е |
| 10 | F | L | U | F | F | E | D | Α | L | Н |
| , GREAT, HORNED, OWL, TREE, FLUFFED, TREE, BABY, BABY, FIREMAN, BASKET, NEST | | | | | | | E Y | | | |





adult

baby

(not to size)

Great Horned Owl

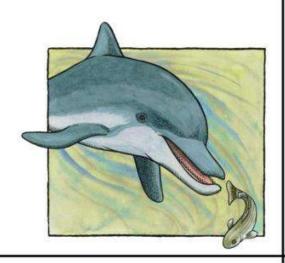
| lave you ever seen one of these animals in real life? yes no |
|--|
| so, where did you see it? |
| Vhat are the babies called? |
| low are the animals born?hatched from eggs born alive |
| How many brothers and sisters might be born at the same time? How big is the baby (length, height, weight, etc.) when born? |
| Who raises the young:both parentsmother onlyfather only neither parent – the baby survives on pure instinct What does the baby eat and for how long? |
| low long will the babies stay with the parent (if parents are involved)? |
| When is the "baby" considered an adult? |
| low will it find a mate and have babies? |
| Vho prepares the nest/den/burrow and how (if applicable)? |

Bottlenose Dolphin

Tursiops truncatus Kingdom: Animal Phylum: Chordata Class: Mammal

Prey: fish squid

Predators: none

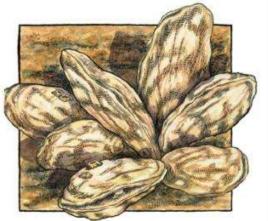


Oysters

Crassostrea Virginica Kingdom: Animal Phylum: Mollusk Class: Bivalve

Prey: plankton bacteria

Predators: sea stars moon snails stingrays oystercatchers people



Fiddler Crab

Uca pugnax Kingdom: Animal Phylum: Arthropod Class: Crustacean

Prey:

algae organic items in mud

Predators:

diamondback terrapins raccoons

various shorebirds

fish

larger crabs

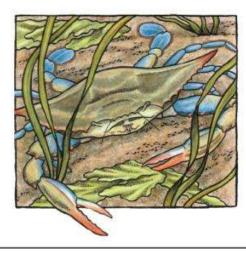


Blue Crab

Callinectes sapidus Kingdom: Animal Phylum: Arthropod Class: Crustacean

Prey: dead animals

Predators: seagulls herons river otters

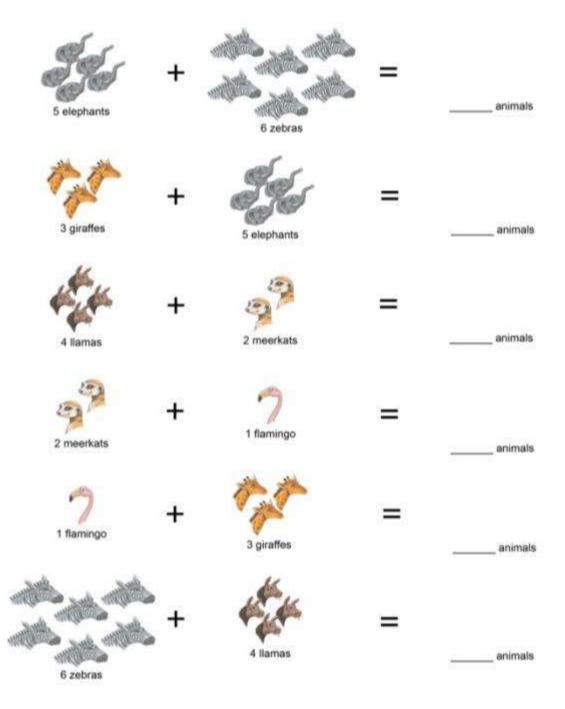


Math

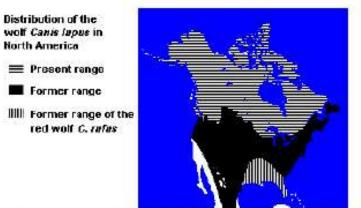
Great Backyard Bird Count

| | | | orned Ow | l (Bubo virginianus) | | | |
|------------------|------|------|----------|----------------------|-------|-------|-------|
| State/Province | 2009 | 2008 | 2007 | State/Province | 2009 | 2008 | 2007 |
| Alabama | 28 | 8 | 5 | Nevada | 7 | 18 | 4 |
| Alaska | 7 | 10 | 2 | New Brunswick | 1 | | |
| Alberta | 19 | 16 | 18 | New Hampshire | 1 | 1 | |
| Arizona | 47 | 37 | 40 | New Jersey | 21 | 14 | 19 |
| Arkansas | 19 | 20 | 22 | New Mexico | 11 | 16 | 13 |
| British Columbia | 18 | 23 | 6 | New York | 45 | 29 | 27 |
| California | 153 | 172 | 187 | North Carolina | 44 | 39 | 35 |
| Colorado | 64 | 47 | 30 | North Dakota | 1 | 14 | 4 |
| Connecticut | 13 | 20 | 17 | Nova Scotia | | | 4 |
| Delaware | 14 | 9 | 13 | Ohio | 49 | 22 | 24 |
| Florida | 91 | 91 | 59 | Oklahoma | 15 | 20 | 9 |
| Georgia | 66 | 50 | 37 | Ontario | 12 | 11 | 10 |
| ldaho | 42 | 57 | 33 | Oregon | 47 | 37 | 27 |
| Illinois | 40 | 45 | 27 | Pennsylvania | 99 | 62 | 54 |
| Indiana | 45 | 33 | 29 | Quebec | 7 | 7 | 6 |
| lowa | 34 | 20 | 20 | Rhode Island | 3 | 3 | 2 |
| Kansas | 31 | 18 | 18 | Saskatchewan | 6 | 6 | 16 |
| Kentucky | 27 | 21 | 9 | South Carolina | 16 | 17 | 26 |
| Louisiana | 14 | 16 | 8 | South Dakota | 24 | 9 | 9 |
| Maine | 7 | 1 | 4 | Tennessee | 16 | 31 | 16 |
| Manitoba | 5 | 4 | 3 | Texas | 100 | 61 | 79 |
| Maryland | 35 | 19 | 23 | Utah | 13 | 20 | 16 |
| Massachusetts | 14 | 5 | 14 | Vermont | 3 | 4 | 1 |
| Michigan | 34 | 19 | 19 | Virginia | 41 | 40 | 15 |
| Minnesota | 44 | 43 | 19 | Washington | 96 | 68 | 31 |
| Mississippi | 8 | 13 | 25 | West Virginia | 4 | 2 | 3 |
| Missouri | 28 | 22 | 29 | Wisconsin | 89 | 52 | 56 |
| Montana | 63 | 51 | 35 | Wyoming | 22 | 3 | 18 |
| Nebraska | 25 | 24 | 31 | Yukon Territory | | | 11 |
| | | | | total | 1,828 | 1,520 | 1,307 |

How many Great Horned Owls were reported for the state/province in which you live in 2009? In which of the three years were the most Great Horned Owls reported in your state/province? In which of the three years were the least Great Horned Owls reported in your state/province? Which state/province had the highest number of Great Horned Owls reported in 2009? Which state/province had the highest number of Great Horned Owls reported in 2008? Which state/province had the highest number of Great Horned Owls reported in 2007? Which state/province had the lowest number of Great Horned Owls reported in 2009? Which state/province had the lowest number of Great Horned Owls reported in 2008? Which state/province had the lowest number of Great Horned Owls reported in 2007?



Geography - Gray Wolves



from Hinterland Who's Who: http://www.hww.ca/hww2.asp?id=107#sid

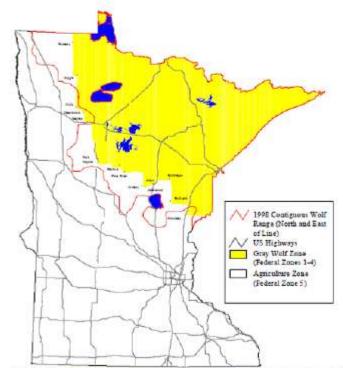
Current Gray Welf Range and Southwest Recevery Area Outroomy Compand Range Southwast Recovery Area Maps from: http://www.fws.gov/midwest/wolf/population/range.htm

Year Round Gray Wolf Range in Montana (in purple)

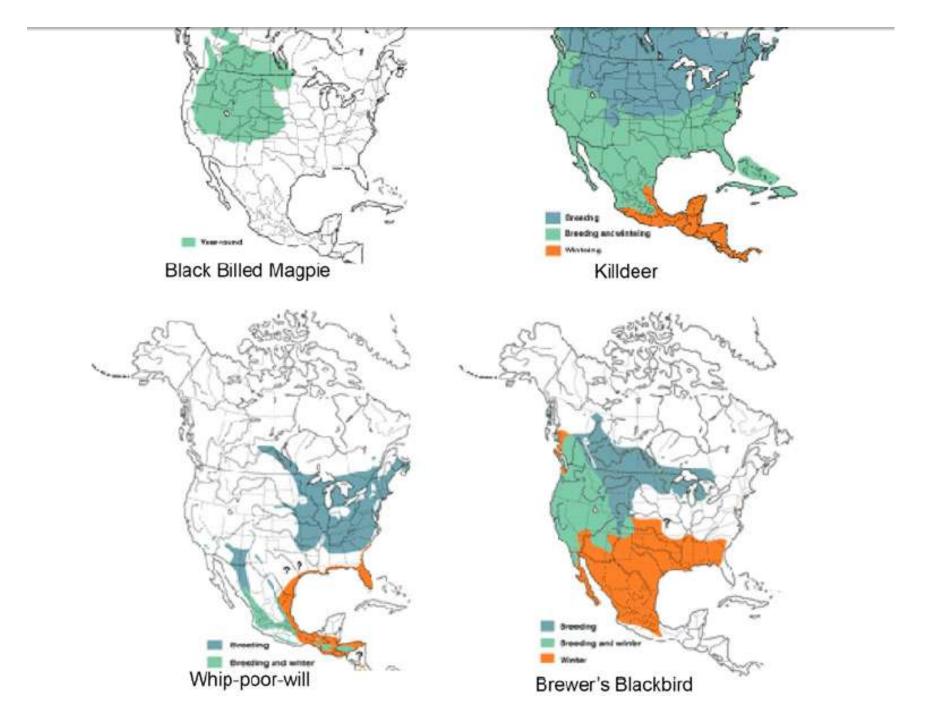


from MT Gray Wolf Field Guide: http://fieldguide.mt.gov/detail_AMAJA01030.aspx

Gray Wolf Range in Minnesota



from MN DNR: http://www.dnr.state.mn.us/mammals/wolves/mgmt.html



Character

- Trustworthiness
- Respect
- Responsibility: Do what you are supposed to do
- Fairness
- Caring about others/Citizenship
- Persevere: keep on trying!
- Always do your best
- Use self-control
- Be self-disciplined
- Think before you act consider the consequences
- Be accountable for your choices

Character

self discipline, hard work, and perseverance:

- In this story, Burro kept working. Do you think he wanted to play and take a nap like his friends?
- Looking at the pictures of Burro working, do you think Burro was having as much fun as his friends?
- Do you think it was easy for Burro to keep working even though his friends were playing?

responsibility: Do what you are supposed to do even if your friends don't

- Do you think Burro was being responsible by working while his friends played or slept? What other behavior choices could Burro have made?
- What would have happened if Burro decided to play and sleep instead of work?

be accountable for your choices:

- Did Burro receive the rewards for his hard work?
- Did bobcat, coyote, and jackrabbit earn the rewards of hard work? Why or why not?
- Do you think Burro should have shared the tortillas with his friends? Why or why not?

personal connection:

- What would happen if your mom or dad (or another loving adult in your life) decided they didn't feel like making you dinner but watched TV instead?
- How would you feel? Would you get hungry?
- Do you think they always want to make you dinner or food?
- What are some things that you can do to help at home or at school?
- Which of the animals would you want as a friend?

Julie the Rockhound Bingo

| Term | Definition |
|----------------------|--|
| sedimentary | rock made from layers of sediment |
| igneous | rock made from hot, liquid rock |
| magma | hot, liquid rock below the earth's surface |
| lava | hot, liquid rock above the surface |
| metamorphic | means "changed," a type of rock made by heat or pressure from other types of rocks |
| limestone | a type of sedimentary rock |
| granite | a type of igneous rock |
| obsidian | a type of volcanic "glass" (lava that has cooled into "glass.") |
| marble | a metamorphic rock made from limestone and pressure |
| Moh's Hardness Scale | one of the ways that scientists determine the type of mineral: what does it scratch and what scratches it? |
| luster | whether the mineral is shiny or dull, one of the ways used to tell what type of mineral it is |
| mineral | a natural solid that has its own chemical make up and crystal structure |
| silver and gold | types of metal ores, often used for jewelry |
| quartz | one of the most abundant minerals on earth; the mineral that Julie found |



Related Websites

Home

Online Store

How to Order

Authors / Illustrators

Signings / Events

Media Center

Submissions

Contact Us



Baby Owl's Rescue

Related Websites

Great Horned Owls:

All About Birds: Cornell Carolina Raptor Center Desert USA National Geographic Nature Works (NHPTV) Owl Pages

Owl Rehabbers:

How to locate a wildlife rehabilitator

Havasu Wildlife Rehabilitation Center
Desert Cry Wildlife,Inc.
Hungry Owl Project
Wild Care Bay Area
Horizon Wings Raptor Rehabilitation
Back to the Wild Rehab
Tri-State Bird Rescue & Research
Audubon Center for Birds of Prey
Avian Reconditioning Center
The Falcon Batchelor Bird of Prey Center (Miami Science Museum)
Institute of Wildlife Sciences
HawkTalk, Inc.
Flint Creek Wildlife Rehabilitation

Heckhaven Wildlife Rehabilitatin Center

Eagle Valley Raptor Center

Silver Lair Sanctuary

Owl Stuff









AR & Reading Counts

| Title | Le | xile | Accelerated Reader | Reading | Fountas | |
|---|---------------|------------|-----------------------|---------|----------------|--|
| | Code (FAQ) | Code Level | | Counts | and Pinnell | |
| ABC Safari | AD | 860 | 5.0 | 4.8 | - | |
| Animals Are Sleeping | BR | - | - | 2.3 | - | |
| Baby Owl's Rescue | AD | 900 | - | - | - | |
| Best Nest, The | AD | 830 | 4.1 | 1.3 | - | |
| Blackberry Banquet | NC | 680 | - | 3.6 | - | |
| Burro's Tortillas | - | 540 | 3.0 | 2.8 | - | |
| Carolina's Story: Sea Turtles Get Sick Too! | - | 700 | 3.6 | 3.9 | - | |
| Christmas Eve Blizzard | - | 610 | 3.1 | 3.3 | - | |
| Count Down to Fall | AD | 1070 | 3.5 | - | - | |
| Day In The Salt Marsh, A | - | 730 | 5.4 | 3.8 | - | |
| Giraffe Who Was Afraid of Heights,The | AD | 740 | 3.7 | 4.1 | - | |
| Happy Birthday to Whooo? | AD | 910 | 3.7 | 5.9 | - | |
| Henry the Impatient Heron | AD | 760 | 4.4 | 3.6 | - | |
| How the Moon Regained Her Shape | - | 660 | 3.4 | 3.5 | - | |
| If A Dolphin Were A Fish | AD | 730 | 3.1 | 4.1 | - | |
| If You Were a Parrot | AD | 640 | 3.5 | 3.4 | - | |
| In Arctic Waters | NP | - | - | 3.1 | - | |
| In My Backyard | AD | 820 | 4.2 | 4.7 | - | |
| Julie The Rockhound | - | 540 | 3.0 | 2.8 | - | |
| Kersplatypus | - | 510 | 3.2 | 2.8 | - | |









Aligned to Standards

Titles by Standard. Try our new Searchable Database... Lesson planning made easy!!

Standards by Title

| Alabama | Illinois | Montana | Rhode Island |
|----------------------|---------------|----------------|----------------|
| Alaska | Indiana | Nebraska | South Carolina |
| Arizona | Iowa | Nevada | South Dakota |
| Arkansas | Kansas | New Hampshire | Tennessee |
| California | Kentucky | New Jersey | Texas |
| Colorado | Louisiana | New Mexico | Utah |
| Connecticut | Maine | New York | Vermont |
| District of Columbia | Maryland | North Carolina | Virginia |
| Delaware | Massachusetts | North Dakota | Washington |
| Florida | Michigan | Ohio | West Virginia |
| Georgia | Minnesota | Oklahoma | Wisconsin |
| Hawaii | Mississippi | Oregon | Wyoming |
| Idaho | Missouri | Pennsylvania | |
| | | | |

National Standards
North American Association for Environmental Educators (NAAEE)



More Resources

AudioBooks



Listen to all 45 titles in English and Spanish (Free Online!)

- Celebration Day Calendar
- Trailers

October

| October | National Book Month | |
|------------|---|---|
| | | |
| October | National Collector's Month | Books: Sort it Out! |
| | | Free Activities: Hidden Picture / Sorting, Categorizing, and Classifying / Scientists Sort Things Into Groups Too / Packy's Sorting Cards / Writing Connection |
| Oct. 4-10 | World Space Week | Books: |
| OCI. 4-10 | world Space Week | How the Moon Regained Her Shape Pieces of Another World Saturn for My Birthday |
| | | Free Activities: |
| | | Moon Observation Fun Facts / Native American Moon Names / Lunar Calendar / Moon Phases Graphics / How to Deal with Bullies |
| | | Comet & Space Fun Facts / Meteor Math Game / Meteor Watching Party Checklist / Recipe for Comet Cookies Solar System Fun Facts / Saturn Fun Facts / Recipe for |
| | | Edible Rings of Saturn |
| Oct. 5-11 | Get Organized Week | Books: Sort it Out! |
| | | Activities: |
| | | Hidden Picture / Sorting, Categorizing, and Classifying / Scientists Sort Things Into Groups Too / Packy's Sorting Cards / Writing Connection |
| | | |
| Oct. 8 | Cephalopod Awareness Day (Octopus Day!) | Octavia and Her Purple Ink Cloud |
| | | Free Activities: • Animal Camouflage & Protection / Octopus Fun Facts / Coloring Activity |
| | | |
| | Earth Science Week | |
| Oct. 11-17 | | , |
| Oct. 11-17 | World Rainforest Weel | |

Science and Math Through Literature

Trailers on YouTube.com

Best Nest, The Blackberry Banquet

Kersplatypus One Wolf Howls

Saturn Turtle Summer

Burro's Tortillas

Rainforest Grew All Around

Count Down to Fall River Beds

Click trailer image on far right to play trailer on youtube.com. Click on cover image to view book homepage





Doris Mueller Author

St Louis Area





Sherry Neidigh Illustrator Greenville, SC Area















Terry Pierce Author N of Los Angeles



Lisa Downey Illustrator Charleston Area



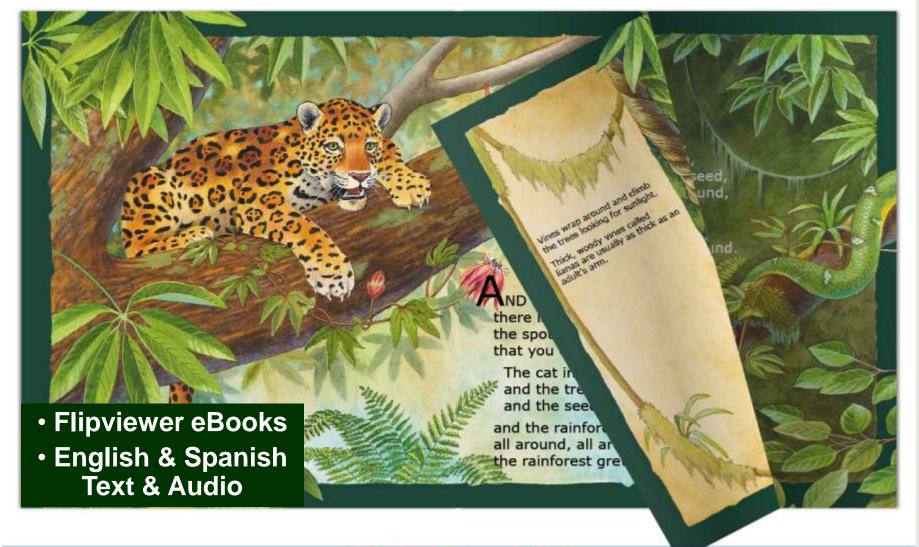
The Rainforest Grew All Around - Spanish

























School Resource Grant

- Free One-Year Site License
- 45 eBooks: Eng. & Spanish
- Unlimited Access
- 3300 Schools & Growing

- One School per District
- Title I / III
- Homeschool Groups
- Public Libraries







Science & Math Through Literature





Questions?





Lee German, Publisher





