

Activity Guide

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To Be Used With
If My Mom Were A Platypus:
Mammal Babies and Their Mothers
by Dia Michels

illustrated by Andrew Barthelmes

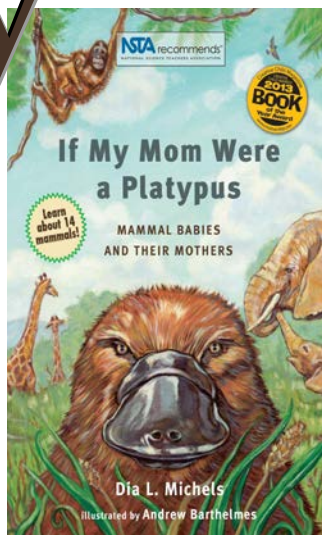
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If My Mom Were A Platypus represents an up close and unforgettable adventure into the fascinating world of animals. From ordinary to the most unusual the author captures the excitement of a baby mammal's everyday life. This guide gives you engaging and easy to follow ideas on how to use the text to bring the world of animals to life.

Science	Go Exploring Animal by Animal
Social Studies	Multi-Cultural Explorations
Math	Problem Solving
Language Arts	Skills, Expository & Narrative Writing
Research	Cooperative Learning Unit
Extensions	Stretch Your Brain



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Bridging the gap between
the blackboard and the blacktop

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Critical Thinking/Building Background Knowledge

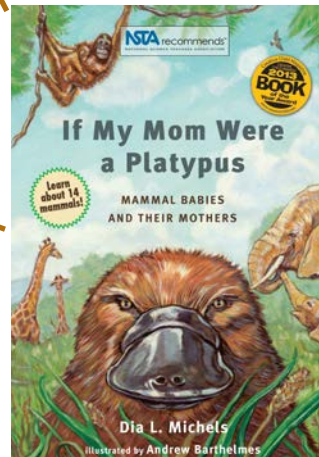
Picture Walk through the book to draw interest to the text. Older children can be directed to read on their own. With younger listeners focus on one animal at a time.

Survey the audience as to their experience with animals. Who has visited a zoo...aquarium...or nature center? Does anyone have a pet? Has anyone ever observed an animal in its natural habitat? Discuss...

Discuss what the animals in this book have in common. They are all mammals. Mammals all have similar characteristics. Use a dictionary or encyclopedia and have students define the word mammal.

- All mammals have backbones, have children feel their backbones.
- All mammals have hair or fur.
- All mammals' moms nurse their babies with milk
- All mammals are warm blooded
- Almost all mammals give birth to live young

Predict from the title *If My Mom Were A Platypus* what the story is going to be about. Who appears to be telling the story? Will this book tell us only about the platypus? Or will this book, with a giraffe on the cover, tell us about more than one animal? Discuss predictions, asking listeners to justify their answers. Ask older listeners to respond in writing in a journal.



If My Mom Were A Platypus is written in first person from the point of view of the baby. Encourage readers to think about problems young animals have and what the animals must learn in order to survive. List some of the problems any animal might face compare these to the problems humans face as growing up.

All animals have a habitat that is just right for them. Name a habitat... Such as the ocean. Brainstorm names of animals that might live in that habitat. How many of them are mammals?

Brainstorm in small groups the lives of all the animals the groups can think of. Then without direction ask the groups to classify and categorize their list. Share... What types of characteristics did the children choose to sort by... skin type, habitat, ways of movement? Ask groups to validate their groupings. Use this information to assess what characteristics need additional focus.

Narrative Writing

Compare and Contrast/The Human Mammal

The final section of *If My Mom Were A Platypus* focuses on us the human mammal. Have each child write a narrative of his or her own life, complete with a collage of illustrations and facts gathered from various recourses.

Children can interview their own families to learn the story of their birth. Invite children to design a research web on themselves to use in compiling the information. Questions such as these might be helpful. How was I born? Was I born into a family of one or two or three or ??? How did I grow? What do I know? How did I learn? What do I eat? What are my favorite foods? Where do I live? (What is my habitat?) Can human animals have different habitats?

Suggest the use of a baby book, grandparents, photo albums and /or a video of themselves at a younger age as possible resources.



If my mom were a Human...

...I would have been born _____ !

And this would be my story.

Music/Listening

Sing a song about all the facts learned from reading this story. Doing that could be a review for a test or a quiz... or could be a fun-filled activity at the end of the day.

Invite children to make up rhymes to add to the song, including information on all the mammals, even themselves. Vary the information in the song according to the listening/learning levels of students.

Children of all ages love listening, watching, and learning about animals. Supplement any activities with videos and/or CDs about different animals.



(sing to the tune of Mary had a Little Lamb)

The elephant walks around so soft,
Around so soft, around so soft.
The elephant walks around so soft,
On his padded feet.

The koala was born in a tree,
In a tree, in a tree.
The koala was born in a tree,
A eucalyptus tree.

The giraffe has a big long neck,
A big long neck, a big long neck.
The giraffe has a big long neck,
With seven great big bones.

Language Skill Development

The test of this delightful story lends itself to the enhancement of many skills. When these skills are introduced and practiced within the context of the story, the number skill lesson becomes more meaningful to the learner.

Parts of Speech

Play a "How Many Can You Find?" game with students. Explain the parts of speech by giving them a sheet of paper folded into fours and have them head each section with a different part of speech: Nouns, Adjectives, Adverbs, Verbs. On GO give the students 3 minutes (can be any length of time) to see how many nouns they can find. Pair/Share ideas, and then give them 3 more minutes to see how many. Pair/Share and continue until all parts have been reviewed. Make a class list on a chart to use for later references or to add to on another day. This list can even be for 1 minute at the end of class.

Dictionary/Vocabulary Development

Give children a list of the more unusual words. You can introduce one new word a day for the duration of the unit. Look up the word together as a group; discuss which definition goes with the sentence in the text, and reread the sentence. Copy the sentence and the correct definition into a spelling dictionary or class learning log for later reference. Depending on the level of your students, you may also want to find synonyms or antonyms of a word, if appropriate.

Point of View

The point of view is the angle from which the story is told. *If My Mom Were A Platypus* is written in the first person point of view, meaning that one of the characters is telling the story. In this case, all the baby animals are telling the story of their lives. What changes would we have seen in this story had it been written from the mother's point of view or in third person? Could this story be compared to an autobiography? Survey your class to determine what they think is the most effective or interesting way to tell a story.

Letter Writing

Writing friendly letters allows us to keep in touch. With e-mail the art of letter writing is slowly becoming a thing of the past. Yet... to get a letter you must write one. If writing letters is a new skill for your students, introduce the parts of a friendly letter: the heading, the salutation, the body, the closing and the signature. Then... choose one of the following as a topic to reinforce the letter writing skills of your students- or choose one of your own. Write a letter to: your grandparents, asking them how their lives were different from yours... to the author to find out how she became interested in mammals... to an animal in the story asking him/her a question about his/her life (it will probably not write back)... to a zoo keeper find out what it is like to take care of animals in captivity...

Or... Write for Information

Write to animal protection agencies. Can you find out information on endangered or threatened species? Has a particular species on earth grown or declined? Ask them why?



Social Studies

Multi-Cultural Explorations

MAMMALS ARE FOUND ALL OVER THE WORLD!

Investigate the cultures of the several continents that the various mammals call home. Use text of *If My Mom Were A Platypus* as a beginning... opening a vision into the diverse lifestyles, species and habitats we have on our planet. Investigate each continent from the flags and the national anthems, to the languages and unique physical features, the native peoples and their myths and legends, to the mammals and their habitats. Culminate with a **Multi-Cultural Day** to share all that you have learned with others. Make posters to advertise. Invite guest speakers... dress in traditional dress for the occasion... have a tasty treat from the rain forest... listen to a drumbeat. **Enjoy!!**

Safari

Venture into the wilds of Africa on a simulated journey... research the itinerary of your trip. Where will you go? What will you see? What will it cost? Develop a brochure that shows about your visit.

Imagine

If I were a child in South America I might live in a hut in the rain forest... If I were a child in China, I would speak Chinese... If I were a child in Australia, my national anthem would sound like this...

Drama

Use the information learned to write a play about an animal and act it out, make costumes or masks, design a set and build props! You are ready! TAKE ONE!

Languages

Humans, whatever their culture, learn the language they grow up hearing. There are thousands of different languages spoken by humans. Each one has different sounds, different alphabets, but all are designed to help us communicate. Which one is the most commonly used? **To get your students started, here are 24 ways to say Hello:**

Arabic- Al salaam a'alaykum	Indonesian- Selamat pagi
Bengali- Ei Je	Italian- Buon giorno
Chinese- Ne hao	Japanese- Konichiwa
Croatian- Bok	Mohawk- Sekoh
Czech- Nazdar	Portuguese- Bom dia
French- Bonjour	Spanish- Hola
Gaelic- Ia dhuit	Swahili- Jambo
German- Guten Tag	Tahitian- Iaorana
Greek- Kalimera	Turkish- Merhaba
Hawaiian- Aloha	Ukrainian- Vitayu
Hebrew- Shalom	Vietnamese- Chao ong
Hmong- Nyobzoo	Welsh- Bore da



Explore non-verbal forms of communications as well. What types of thing can we say to one another without any words at all? Compare to how animals communicate.

Science

Ecology/Environmental Issues

There are 4,200 species of mammals. What is a mammal? What do they have in common? We human animals must learn how to share our earth with all the amazing creatures found on our planet. Use the following activities to raise the level of awareness of environmental concerns in your class.

Protection

Discuss how the mammal species in the book protect themselves and their babies. What special adaptations do they have that help them protect themselves? How do parents and other family members take care of babies? Compare to how humans protect and take care of children.

Do Your Part...

Brainstorm ways you think we could make the earth a better place for us and for the animals. Plan a project for the class to help the wildlife in your area... clean up trash... put up a bird feeder or a bat house. Plant a garden to attract a hummingbird or butterflies...

A Lesson in Rhyme

To reinforce the environmental concerns of pollution and overuse of natural resources, use *The Lorax*, by Dr. Seuss, as an extra resource to give children of all ages some insight into what could happen if we do not take care of our planet. As the Lorax would say...

"Unless someone like you cares a whole awful lot, nothing is going to get better, it's NOT!"



Exciting Experiment

Many marine mammals have dwindling populations due to hunting, drowning in fishing nets, injuries from boat propellers, eating plastic they mistake for jellyfish and contaminants in the water. These animals are often labeled as threatened or endangered or even extinct.

You will need:

Five different colors of paper

A paper bag

Paper and pencil

Cut five dolphins or whale shapes from each color paper. Each color is to represent a different species. Write one of the potential threats listed above on each shape. Put them all in the bag. Without looking, pull out ten shapes.

Survey the results: How many of each species did not survive? What was the number one cause of endangerment to your dolphin or whale population? Discuss what happened. Repeat the process. Compare and contrast.

Math

Problem Solving

Population

The population of humans on our earth continues to rise rapidly. In 1800, there were 980 million (.98 billion) humans on this planet. By 1900, it had gone up to 1,650 million (1.675 billion).

Calculate how many people were born between 1800 and 1900. At what rate was the population increasing?

Extensions: Now there are more than 6 billion people in the world. How many more people have been born in the last century than the one prior to it?

Graphing

Use a line graph to show the specific rates of human population growth every 10 years from 1800 till 2000. Plot the points to show the growth. Analyze the data. What do you think attributed to the big growth in population? Were there any times where the earth saw a decline in the human population?

Extension: With older students you might wish to compare birth and death rates. Are we now living longer? How does that contribute to the population growth?

Pie Graphs

A baby koala sleeps 18 hours a day. Make a pie graph to show what portion of each day the koala is awake and asleep. Then discuss how many hours a day humans sleep. Make a pie graph to show human sleep hours. Compare and discuss the two graphs. Does the koala sleep more than half of each day? Do you sleep more than half of each day?

Word Problems

If one polar bear weighs 400 pounds, then how many pounds would eight polar bears weigh?

How Can This Be?

Challenge Your Brain
Polar Bear Trivia...

Question

We roam the polar icecap as our kind has done for 70,000 years. Each day we steadily march eastward in our search for seals, but we always remain in the general vicinity of our birth. How does that work? How can that be?

Answer

The ice we live on is always drifting west. We have to move to stay in one place.



Follow-Up Research Project

Expository Writing Cooperative Learning

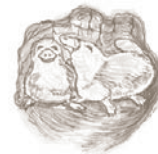
If My Mom Were A Platypus is an ideal reference/information book to use with 3rd through 8th graders. This research project is designed for a 2 to 3 week period, yet it could easily be modified to be shorter or longer.

Day 1- List the 14 mammals covered in the text. Use the general information about mammals to generate a discussion from the group about the characteristics of mammals in general. At this point introduce them to the special mammals called monotremes. Then group the children in interest groups for further research.

Day 2- Allow each group to design an information web that focuses on the mammal species they have chosen to research further. Steer groups toward the types of questions you know they will be able to find the answer to. Instruct groups to list and categorize questions (on large paper) about the animal baby and its family. Do they know the animal babies' names? What do they eat? Where in the world would they live? What type of habitat? Are they endangered? Allow time for the groups to list, cluster and label their questions.

What I want to learn about the Platypus

Habitat	Food	Unique Characteristics
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Day 3- Introduce *If My Mom Were A Platypus* to the learners, using one of the pre-reading activities on the previous page. Pass books to students in the class and allow time for browsing and discussion. The first reading should be non-structured... enjoyable...and fun...It might be read aloud... or read silently. Then discuss the fascinating similarities and differences these mammals have and give students the opportunity to analyze and synthesize the data. Consider using a Venn Diagram for comparison as a whole group, individually or by partners. Or create posters or dioramas depicting the world of each baby animal.

Day 4- Reread parts of the text to enhance facts that you want the children to be especially knowledgeable about. For example, have all groups reread to find answers to specific questions. They might read until they have found out what makes the platypus unique as a mammal; why the baby koala smells like a cough drop; how much an elephant tooth weighs...Have children raise one hand when they find one answer, two hand when they find both answers and then stand when they have found all three. Repeat the process, varying the questions based on the knowledge the students need to learn.

Day 5- Introduce to all the learners the process by which they are going to research their animals and how they are going to present the project to the rest of the class. Emphasize that they will be the expert on their specific animal and must be prepared to answer questions from you and their classmates. Since children learn in many different modalities, allow the groups to choose their own method of presenting the material to the class, the only requirement being that each group develop a poster size page of their animal. This page should include facts they learned, illustrations... and possibly activities. These "BIG" pages can then be compiled to make a mammal fact book that can be shared with younger students, younger brothers and sisters, even Mom and Dad. Let the students help you generate a list of possibilities that might include some of the following: making masks of the animals so that their report can be given in first person, making puppets, develop a video, making an activity book... a jeopardy game, trivia questions, a day in the life of... an advertisement or cartoon, a radio play, a brochure, or even a tall tale.

Day 6- Small groups meet for research and planning. Answer questions generated on their research web on Day 3.

Day 7- Make a trip to the library, if need be, for extra resources.

Day 8- Monitor the groups' progress, allowing time for work in small groups.

Day 9- Begin research group presentations if you are attempting to complete the entire unit in 2 weeks.

Day 10- Culminate research group presentations. Compile big book and rotate the book home, with each child, for family sharing. Or arrange for groups to visit a lower grade and share.

IF you have 3 weeks to finish... allow groups to continue research and begin presentations, a few each day, alternating with a teacher organized hands on activity (see Activity Sections for ideas). These ideas could also be passed on to students for use with their presentations.

Have fun and Enjoy learning About the Fascinating World of Mammals!

Science—Go Exploring...Animal by Animal

The following section is packed with engaging and easy ideas to help you continue to make connections from book to classroom. You have an abundance of animal facts at your fingertips to use for enhancing your teaching. You might challenge students with a daily trivia question, or have the class compete in groups to answer questions in a game-show format. The activities are designed to be done independently by students or in groups or pairs. Included are hands-on activities, as well as discussion starters and independent project ideas.

Platypus Baby is a Platypus

- In 1798, the first platypus specimen was sent from Australia to Britain. British scientists were convinced it was fake, made of a duck's bill and feet stitched onto a mammal's body.
- The platypus is one of few mammals that do not have a belly button. A platypus baby gets her food from the yolk sac inside her egg, not from the umbilical cord.
- The platypus is a monotreme—it hatches its young from an egg. It is one of two monotremes in the world. The other is the echidna, also from Australia.



The Platypus is sometimes called the “bits and pieces” animal.

Some people think it looks as if it is made up of parts of other animals. Have children make up their own bits and pieces animal, using parts from at least three different animals. Have them illustrate their creation and write their own story, answering the questions: How were you born? How did you grow? What do you know? What do you eat? from their new animal's point of view.

Elephant Baby is a Calf

- Elephants can communicate by using sounds too low for us to hear.
- An elephant's ear is so big it could cover a twin bed.
- One elephant's tooth can weigh up to nine pounds.
- An elephant's eyelash is as long as your hand.
- There are 10,000 muscles in an elephant's trunk.
- Elephants weigh more than five tons.
- They have big, soft spongy feet and barely leave a footprint.



Elephant Walk—Ask your kids if anyone has ever told them that they sound like a herd of elephants. Explain that a herd of elephants is actually very quiet. This is because they have big, soft, spongy feet that help them walk quietly. Their feet spread their weight out so well that they hardly leave footprints. An activity will help them understand how this works. Give each student a soft sponge to hold. Then ask them to slap both hands on the table. Which of the hands is quieter? An elephant's foot is padded, like the sponge, and this helps the elephant walk quietly.

As an extension, have students get down on their hands and knees, holding a sponge in each hand and “walk like an elephant”. They will move their right arm and right leg together, and then their left arm and left leg together. They will sway back and forth like an elephant. Humans crawl using their right arm and left leg instead. Crawl like a human for comparison. Which is easier for you? Why?

Science—Go Exploring...Animal by Animal cont'd

Koala Baby is a Joey

- Newborn koalas are so tiny that you could mail more than 50 of them with a first-class stamp.
- A koala smells like a cough drop because of the amount of eucalyptus it eats. The smell keeps fleas away.
- Eucalyptus leaves have so much fiber that they are hard for the koala's body to break down- it's like eating cardboard. A bacteria lives in the digestive system that helps them to digest the leaves.



A koala sleeps 18 hours a day. How many hours do you sleep a day? What if you slept as much as a koala? What would you do while you were awake? What activities would you have to give up? Write a story telling how your life would be different.

Golden Lion Tamarin Monkey Baby is an Infant

- When golden lion tamarins are excited or angry, the hairs in their manes stand on end, making their heads look large and fierce.
- Both male and female tamarins have manes.
- In the 1970s golden lion tamarins were almost extinct. There were only about 100 tamarins left in the world. They were in danger because people cut down the rain forest where they lived and captured them as pets. In the late 1800s a program began to reintroduce zoo born tamarins into protected forests in Brazil. There are now more than 800 golden tamarins living in the wild.



Golden tamarin monkeys eat lots of fruit. In zoos, they are fed apples, bananas, and oranges. Make a golden lion tamarin fruit salad using these fruits. Because golden lion tamarins share their food, have your kids share their fruit salad with friends.

Pacific Gray Whale Baby is a Calf

- Gray whale milk is 53% fat and 15 times richer than a cow's milk.
- Newborn gray whale calves double their birth weight in 60 days!
- When whales breathe out through their blowholes, they make a mist called a "spout" or "blow" above the water. A gray whale's spout is shaped like a heart and can be up to 13 feet high. Gray whales can blow four times a minute.
- A whale is not a fish. It is a mammal. Dolphins, seals, and walruses are also mammals. Sharks, on the other hand, are fish.



Whales have a layer of fat, called blubber, beneath their skin. This helps to keep them warm. To demonstrate this, have your kids spread a thick layer of shortening onto one of their index fingers. Then dip both fingers into a jar or bowl filled with ice water. They will find that the shortening helps insulate their finger and keep it warm.

Science—Go Exploring...Animal by Animal cont'd

Giraffe Baby is a Calf

-Giraffes can feed higher in the trees than any other animal, except elephants. Their long legs and necks give them the advantage, as well as the ability to tip their heads way back.

- Giraffes have 18-inch long, dark blue tongues that help them reach even higher.
- A male giraffe can reach a leaf growing 20 feet above the ground.
- Giraffe calves can grow one inch a day. They do not run and jump and play like many baby mammals. They play less because they need to use their energy to grow. Giraffes protect themselves by being big, so they grow as large as they can, as fast as they can.



Giraffes and swans both have very long necks. A giraffe's neck is very stiff, though, and a swan's is flexible. Why? Like most mammals, giraffes have only seven neck bones. Giraffe neck bones can be up to a foot long! A swan has between 23 and 25 small neck bones. Your kids can build their own giraffe and swan neck models and compare them. For the giraffe neck use seven spools of thread laced onto a string, tie off the ends. For the swan neck, string 25 plastic beads onto a piece of string. Compare the two models. Which model is easier to fold into an S shape? Which is sturdier? Which is more flexible? How does a flexible neck help a swan? How does a stiffer neck help a giraffe?

Least Shrew Baby is a Least Shrew

- When a least shrew's nest gets dirty, the mother shrew builds a new one nearby. She carries her babies to it by her mouth, one by one.
- Animals that hunt least shrews do not usually eat them, because they smell bad. Their strong musky smell helps them mark paths and identify each other.
- Least shrews do not have very good eyesight.
- Least shrews have so little body fat, they cannot go more than a couple of hours without food. Missing a meal is a sure way to a quick death.



A least shrew's heart beats 1,200 times a minute. An adult human heart beats about 70 times a minute; a child's beats faster, about 90 times a minute. Show children how to take their own pulse to compare. They can find their pulse on their wrists or necks. Count beats for one minute. This will help them to understand the "very fast life" of the shrew.

Hooded Seal Baby is a Pup

- Seals cannot see colors.
- Hooded seals get their name from the black pouches that males have on their heads. When they want to impress another seal, they close their nostrils and inflate the pouches to the size of two footballs. This makes their heads look big and scary and powerful!
- Hooded seals go from infancy to adulthood in just four days. This is the shortest childhood of any mammal.



Science—Go Exploring...Animal by Animal cont'd

Hooded Seal Baby is a Pup cont'd

Hooded seals dive underwater to catch their dinners of fish, crab, shrimp, clams and squid. Before they dive they breathe out, or exhale. This helps them to dive deeper. To demonstrate, fill up a sink or small tub with water. Inflate two balloons, one completely inflated and the other with only a little air in it. Have the children attempt to sink the balloons to the bottom of the water. Which would be easier and why? You might assign this as homework for more and easier exploration in the bathtub at home.

Mexican Free-Tailed Bat Baby is a Pup

- So many free-tailed bats live together in a cave that you can find 4000 bats in one square yard!
- Twenty million free-tailed bats can eat 250 tons of insects in one night.
- There are almost 1,000 different kinds of bats.
- Bats hang upside down because they can't stand right side up. Their leg bones are too thin to hold up their bodies.



Mexican free-tailed bats use echolocation to hunt moths and to navigate. They make high squeaking noises that bounce off the moths and tell the bats where the moths are located. Play a game of "BAT AND MOTH". Blindfold one student to be the bat and other kids to be the moths. When the bat calls out "Bat!" the moths respond with "Moth!" The moths may not move. Only the bat is permitted to move around and locate all the moths by listening to sounds coming from the location.

Lion Baby is a Cub

- When lion cubs are born, they weigh between four and eight pounds. As adults they weigh 70 times as much. Most humans weigh only 22 times their birth weight.
- Lions have loose skin on their stomachs. That means if their prey kicks them there, there is more padding to keep them from getting hurt.



Lions use their rough, sandpaper like tongues to scrape meat off the bones of their prey. Ask your class to draw a picture with crayons. Try to use another piece of paper to rub and "clean off" the crayon. Will it work? Next try a piece of sandpaper. Which works better?

Polar Bear Baby is a Cub

- Polar bear milk is thicker and richer than whipping cream. It is 30% to 40% fat!
- Polar bears can use their nose to track a seal for miles, even under two feet of ice.
- An adult polar bear can eat up to 20% of its weight in one meal. That could mean eating 120 pounds of seal blubber for lunch.
- A polar bear looks white. But he isn't, really. His long, shaggy hairs are colorless and hollow. Beneath his hair, the skin is black.



A mother polar bear is 400 times heavier than her newborn cub. If this were true for humans, how much would your students' moms weigh? Ask them to find out their birth weight... then multiply this number by 400. Ask mom to see if she weighs as much as a polar bear.

Science—Go Exploring...Animal by Animal cont'd

Hippopotamus Baby is a Calf

- Hippos rise to the surface of the water to breathe, even when they are asleep.
- Hippos can't see each other very well through the murky water, so they make sounds to let each other know that they are there.
- Hippos are the only mammals that can hear as well out of water as underwater.
- A hippo gives birth and feeds its young underwater even though almost all of their predators live in the water.



Hippos stay in the water all day and leave only to look for food in the evening. Their skin dries out easily in the sun. To demonstrate this, place damp paper towels on two paper plates... place one in a dark closet and one in the bright sun... check after an hour... then two hours. The towel in the sun will be dried out. The towel in the dark place will be wet and cool. Smart hippo!

Orangutan Baby is an Infant

- The word "orangutan" means "person of the forest" in Malay.
- Orangutans are the only apes that do not live in large family groups.
- Orangutans are great apes, not monkeys. Apes are usually bigger than monkeys. They also have larger brains and they do not have tails.
- Chimpanzees and gorillas are also great apes.



Orangutans keep track of all fruit trees in the forest, so they they'll know where to find a good meal. They also follow the movements of certain birds that can spot fruit from the sky. Design a memory game to play to see how good you are of keeping track of trees, fruits and birds. Have each child design a matching pair of cards. Place all in a pile, shuffle and lay out on the table facedown. Pick up two at a time, attempting to find all the matches. The person with the most matches wins.

Human Baby is a Baby

- Humans are the most intelligent of all mammals.
- They live in family groups and care for their young for many years.
- Human babies are the only mammals that drink milk from other mammals in childhood.
- Humans are the only mammals to consume milk of any kind beyond childhood.
- Human hands are very important. Since we walk on two legs all the time, our hands are free to do all kinds of things.



Experiment to see why hands are so important to humans. Have your students try doing some everyday things with hands tied behind their backs. Is it hard to eat? To pick up something? To open a door? To turn on the light? List things we need our hands in order to do.

Extensions to Go Beyond... Stretch Your Brain!

Animal field trip

Units on animals can be enhanced by visiting a zoo, an aquarium, a nature center... to observe real animals in action. Observe animals described in *If My Mom Were A Platypus* and look for particular behaviors and characteristics. Assign students research groups for various species. Have them report back with their findings. What new information did they learn?

Mythology

People have often used myths to explain things they do not understand. Many myths also teach a lesson.

Learn about the Karraur, an aboriginal group in Australia, who say that *Yhi*, the goddess of light and creation, granted the wishes of all the animals of earth. Among them was the platypus, which was so confused that he wished to have some part of every other animal.

Or Yahsa... an angry woman found in Japanese mythology who was reborn as a bat.

Or Selkies... the mythical creatures of British Isles that could transform seals into beautiful human women.

Sensory Perception

The Mexican free-tailed bat has an enhanced sense of smell. Twenty million bat moms can live together in one cave. Each bat mother has her own baby. How does she find her baby among all the millions of pups? She memorizes its smell and the sound of its voice. Use the following sensory activity to test your students' abilities to "MAKE A MATCH".

Before you begin, prepare several matching pairs of paper cups, enough for each child in the class to have one. Each matching cup will have its own special smell and sound and combination. Soak cotton balls in different scents and place them inside the cups... lemon, mint, vanilla, peanut butter, vinegar or perfume all work well. In addition, put different small objects inside the cups that will make different noises when shaken... rice, paper clips, bells, sand, beans, dry cereal, or pennies. Seal the tops with aluminum foil, attached with rubber bands or tape. Poke a few holes with a toothpick in the top of each cup. Make sure you have two of each cup! Discreetly label the pairs, so that you will know which pairs match, but the kids won't. Give one cup to each child and instruct them to find the matching cup. Discuss their results—could they match all the cups? Was it harder or easier than they expected? Was it harder to match sound or smell?

Animals Misconceptions

Watch a movie with your class or read fiction stories that feature various animals.

Elephants are featured in *Dumbo* and *Babar*. Whales are the main characters in *Free Willy* and *Pinocchio*. Bats appear in *Batman* and in countless vampire movies. Lions are highlighted in *The Lion King* and *Born Free*. Talk about how animals are portrayed in movies and books. Do your students think these are good or accurate representations? Discuss any misconceptions your students may have about animals in the book.

About the Author/ Dia Michels

Dia lives with her family in Washington, D.C. Their house was built when Theodore Roosevelt was president, almost a century ago. It's right near the U.S. Capitol in a neighborhood of Washington called Capitol Hill. You can see pictures of her neighborhood in *Look What I See! Where Can I Be? In the Neighborhood*.



Dia has been married to Tony Gualtieri for 16 years. He is a scientist at NASA Goddard Space Flight Center, but his real love is playing with model trains. Dia and Tony have three children Akaela (11), Zaydek (8), and Mira (2). Dia thinks that is just perfect. She says, "to me, a family really becomes a family when there are more kids than grown-ups." Three other mammals, all domestic felines, share the house. Dia's hobbies include writing books, going for long walks, line dancing and singing songs from Broadway musicals.

Dia conceived this book in 1989 when she was pregnant with Akaela. She had wanted children very much, but found pregnancy almost unbearable. She suffered from depression, anxiety attacks and in-tense morning sickness (it was so bad that she lost 21 pounds before turning the corner about halfway through the pregnancy). During this time, she realized that being human wasn't necessarily so great. It was then that she decided to find out how other mammals handled pregnancy and birth. From her research, she concluded that when it comes to reproduction, the platypus was far superior to humans.

Dia likes researching and writing, but most of all she likes being a public speaker. She gives talks often at schools, libraries and big meetings or conferences. "I like to connect with people through the words in my books," she says, "but it is even better to connect with people face-to-face. The magic of words, whether written or spoken, is that they can bring us together. That's what learning how to write is all about and that's what life is all about."

You can write to Dia at

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Meet the Activity Guide Writers



Kathy Leggett has been creating exciting schooldays for little people for 23 years, 16 of them as a first grade teacher in Prince William County, Virginia, public schools. She incorporates ideas that have worked in real classrooms into our Platypus Media activity guides. Kathy earned her teaching degree from Fairmont State University and her masters in gifted and talent education from West Virginia University. The mother of two boys, Kathy is also an active Cub Scout pack and den leader.



Emily Schuster works in publications at a museum, where she gets to learn about all kinds of cool mammals every day. A graduate of Johns Hopkins University, she has also worked as the assistant editor of the children's magazine *Science Weekly*. Her articles have appeared in the *Baltimore Sun* and the National Zoo's *ZooGoer* magazine. Emily lives in Silver Spring, Maryland.

Visit the kids section of our website, ScienceNaturally.com, for more activities and information.

Meet the Illustrator

Andrew is a New York City-based illustrator who grew up on a farm in Peekskill, New York. Although he loves the country life, he now lives in Brooklyn and commutes to Manhattan where he works for Random House. His first picture book, *Herman the Loudmouth*, reflects the careful attention Barthelmes pays to the tiny nuances children love.



You can contact Andrew, Emily, or Kathy at

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