



WHAT IS A MAMMAL?

A Curriculum for Kindergarten
Students

MAMMALS NEED MILK

Created by the DC
Breastfeeding Coalition

Authors:

Jennifer Tender, MD

Dia L. Michels

Mary Revenis, MD

Judy Campbell, RNC, IBCLC



What is a Mammal? Mammals Need Milk

This curriculum is a project of the
DC Breastfeeding Coalition.



DC BREASTFEEDING
COALITION

Our Mission

The DC Breastfeeding Coalition was established to increase the breastfeeding rates of all infants living in the District of Columbia. Working in partnership with maternal and child health professionals, community health organizations, and mother-to-mother support groups, the DC Breastfeeding Coalition seeks to promote, protect and support culturally sensitive programs and activities that build awareness and understanding of the preventive health benefits of breastfeeding. Through its breastfeeding research, advocacy and educational activities, the Coalition seeks to reduce health disparities—particularly among racialized families living in DC communities with less resources.

Breastfeeding Modules

As part of the DC Breastfeeding Coalition's work, we have created a set of teaching and learning modules that we are happy to make freely available to educational and non-profit organizations. This curriculum is designed for kindergarten students and contains 2 modules: **What is a Mammal?** and **Mammals Need Milk**. You can use one or both modules. There is also a module for 4th grade students and one for high school students. These can be found at www.dcbfc.org

This curriculum was developed by the DC Breastfeeding Coalition

Authors:

Jenny Tender, MD, Dia L. Michels, Mary Revenis, MD, Judy Campbell, RNC, IBCLC

Special thanks to:

Claire Romine, Amara Leonard, Chloe Cattaneo, Lila Campbell, M.Ed, and members of the DC Breastfeeding Coalition for their assistance with editing and design.

Copyrighted material. May reproduce free of charge for educational purposes only.

Please contact us at info@dcbfc.org to request permission to use for other purposes.

If you use this curriculum, we would appreciate your feedback. Please send all comments to Info@dcbfc.org.

Module 1: What is a Mammal?

NGSS:

K-LS1-1 From Molecules to Organisms: Structures and Processes

Students who demonstrate understanding can:

Use observations to describe patterns of what plants and animals (including humans) need to survive.

Subjects: life sciences, mammals, breastfeeding, adaptation, biology

Skills: identifying, sorting

Materials: activity worksheets

BACKGROUND

Animals live all over the world: in cold and snowy places, rainy jungles, hot and dry deserts, deep in the sea, even at the tops of mountains! You probably see animals every day, from birds to squirrels, to cats and dogs.

There are many types of animals from spiders and flies to crocodiles and grizzly bears. Scientists sort animals into different groups. One of these groups is “all animals with backbones” (called vertebrates).

There are five kinds of animals with backbones:

- amphibians
(such as frogs),



- birds,



- fish,



- reptiles (such as turtles), and
- mammals.



We will be learning about **mammals** today. Mammals are different from other animals. Unlike other animal babies that hatch from eggs, almost all baby mammals¹ grow inside their mother's² bodies and are born when they are ready.

Humans are one type of mammal, and so are dogs and cats, but there are thousands of different kinds of mammals. They can be large (like elephants and whales) or small (like mice and bats).

They live all over the world. Camels live in hot, dry deserts, and they only need a little bit of water at a time. Polar bears live in cold, snowy places and have thick fur to keep them warm. Some mammals, like dolphins, even live in the water.



¹ Only two mammals hatch from eggs rather than have live birth, the platypus and the echidna (both native to Australia)

² Although we are using the term "mothers" as the parent giving birth, we recognize that not all birth parents identify as women and/or mothers.

What do mammals have in common?

- 1) they have hair or fur on their bodies,³
- 2) they can keep their bodies warm even when it is cold outside (warm-blooded),
- 3) they have three middle ear bones, and
- 4) the mothers make milk to feed their babies.

Unlike some other animals like fish and turtles, all baby mammals need someone to take care of them, give them food, and keep them safe. Baby mammals drink very special food ... their mother's milk. Why is this milk so important for mammals?

Not only is mother's milk the best food for baby mammals, but it is also the ONLY food they need when they are young (they don't even need water because they get water from the mothers' milk). Mothers' milk has everything that their babies need to help them grow strong and healthy. It is not only warm, yummy, and nutritious, but is filled with powerful ingredients that protect the baby from diseases (both now and for years to come!).

Amazingly, each type of mammal makes milk that is best for their baby(ies). A dog's milk is perfect for puppies and is very different from a whale's milk or a monkey's milk. When mothers give their babies milk, this is called **nursing** or **breastfeeding**. When baby mammals are nursing, they are filling their hungry stomachs and feeling safe, secure, and loved.



³ Some mammals, like dolphins and whales, have a little hair when born or very thin hair.

Module 1 Activity: Guess the Mammals Worksheet

Grade: Kindergarten

Subjects: life sciences, biology, breastfeeding, mammals

Skills: matching, identifying, critical thinking, inference

Materials: Circle the Mammals worksheet, pencils, crayons/markers

NGSS: K-LS1-1 From Molecules to Organisms: Structures and Processes

Background: Mammals have characteristics that distinguish them from other animals.

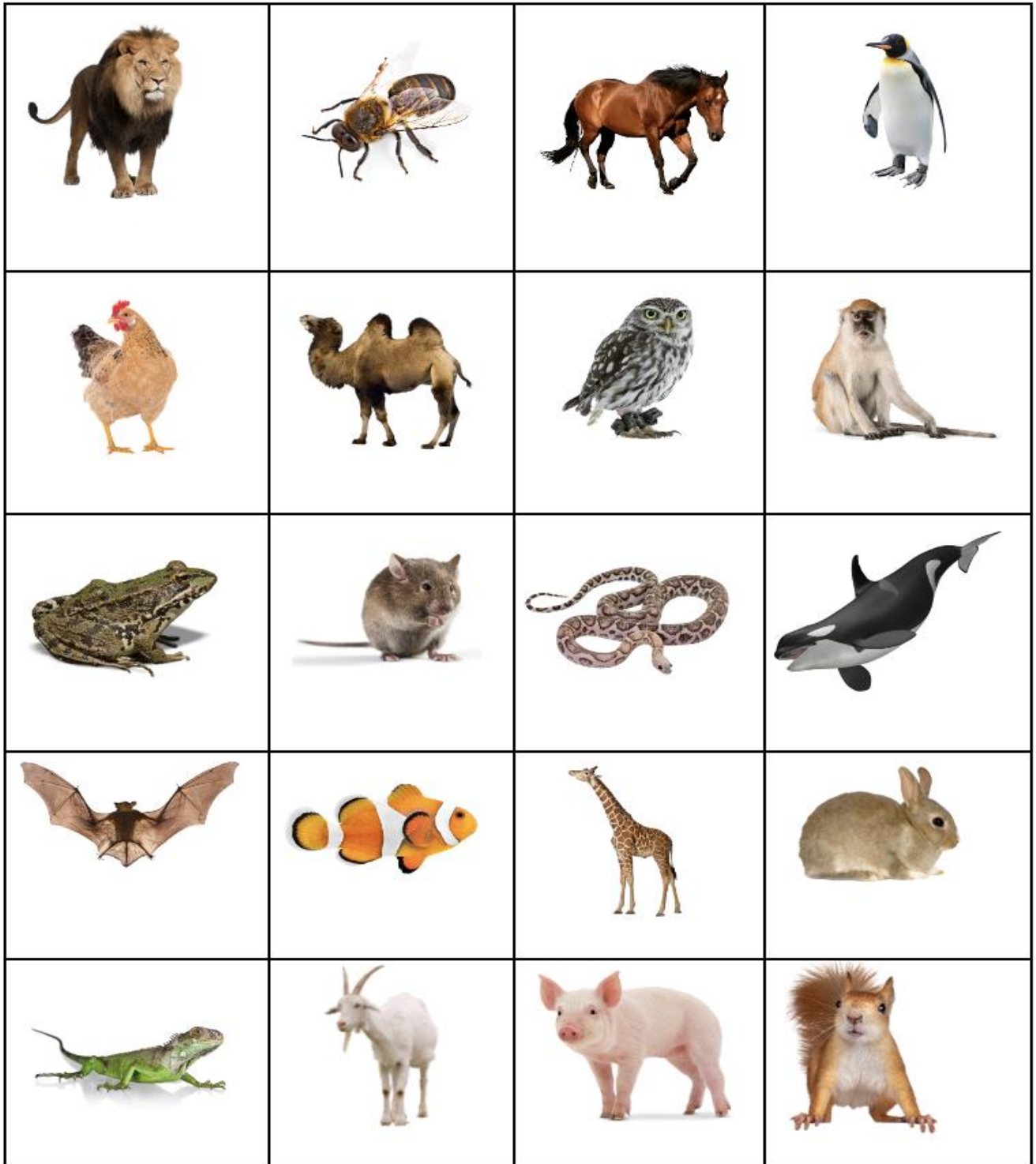
1. They have hair or fur on their bodies,
2. they can keep their bodies warm even when it is cold outside (warm-blooded),
3. they have three middle ear bones, and
4. the mothers make milk to feed their babies.

Activity:

1. Print out enough “Circle the Mammals” worksheets for each student in the class to have one.
2. Instruct the students to circle all the mammals on the worksheet.
Boost: See if they can identify the category of each: amphibians, reptiles, birds, fish, and mammals.
Extra Boost: The bee is an invertebrate (insect) and does not fit into any of these categories.
3. Go over the worksheet as a class to explain why certain animals are or are not mammals.





















What is a Mammal?

Directions: Look at all the animal pictures. Circle the pictures that show mammals.





What is a Mammal? KEY

 mammal	 insect	 mammal	 bird
 bird	 mammal	 bird	 mammal
 amphibian	 mammal	 reptile	 mammal
 mammal	 fish	 mammal	 mammal
 reptile	 mammal	 mammal	 mammal

Module 2: Mammals Need Milk

All baby animals need food and water. The food gives them **nutrients** to stay healthy and grow. Nutrients are the parts of our food (including **proteins, carbohydrates, fats, minerals, vitamins**, and water) that help our bones and muscles grow stronger, help us get taller and heavier, help our brains grow so we can learn new things, help us see and hear more clearly, and even help our hearts beat and our lungs to breathe.

Mammals have a fantastic way of making sure babies get food with plenty of nutrients. Unlike other baby animals, who just eat lots and lots of regular food, mammal parents can provide a special food just for their babies.

What is this special powerful food full of nutrients for babies? It's mother's milk!

All mammals— monkeys, rhinos, sheep, otters, and even humans— make milk for their babies to drink. Each mammal makes milk with nutrients perfect for their baby. For example, baby rabbits hide in nests. Mother rabbits leave their babies alone for a long time and only return to their nests once or twice a day to feed their babies. Because the baby rabbits only feed a few times during the day, the rabbit's milk needs to be packed with nutrients to make sure the baby rabbits get all the nutrients they need with each feed.



Baby rabbits in a nest.



Polar bears nursing.

Polar bears live in cold, snowy areas. The polar bear makes milk with lots of fat in it so their babies can make blubber (fat) to keep them warm



DC BREASTFEEDING
COALITION

Kangaroo babies, or joeys, develop for one month inside the kangaroo mother. The joeys are tiny when they are born and move to the mother's pouch to nurse and grow for six months before leaving the pouch. Sometimes a kangaroo will have another joey before the first one leaves the pouch. You know what is amazing? The kangaroo's four **nipples** each make milk with different nutrients for each joey based on how old they are.



Kangaroo with a joey in her pouch.



Module 2 Activity: Mammals Need Milk

Grade: Kindergarten - 1st grade

Subjects: mammals, breastfeeding, life sciences, nursing

Skills: identifying mammals

Materials:

1. *Babies Nurse* or other picture book that portrays breastfeeding
See: <https://www.alsc.ala.org/blog/2019/08/world-breastfeeding-week-books-for-your-library/>
2. YouTube access ([UNICEF Breastfeeding. It's Natural video](#))
3. Crayons or colored pencils, breastfeeding coloring pages (\$2.00) available at <https://melispanter.gumroad.com/l/SjuPp>

NGSS: K-LS1-1 From Molecules to Organisms: Structures and Processes

Use observations to describe patterns of what plants and animals (including humans) need to survive.

Background: For all mammals, including humans, breastfeeding is the normal way of providing infants with the nutrients they need for healthy growth and development.

Activities:

1. Read *Babies Nurse* or another picture book that portrays breastfeeding aloud to your class. Explain to the children that the babies are drinking their mother's milk and that this is a tailor-made substance that has all the nutrients and fats necessary for their young to grow.
2. Print out coloring pages of breastfeeding mammals and color them.
3. Show your class the [UNICEF Breastfeeding. It's Natural video](#). Ask your students what they observed. How many mammals could they identify? Did they include humans?

Vocabulary Bank

Breastfeeding: drinking mother's milk or taking nourishment from the breast; also called, suckling or nursing.

Carbohydrates: the body's main source of energy. Sugar (found in milk, fruit, and candy) and starches (found in bread, crackers, and pasta) are made from carbohydrates.

Mammal: an animal with hair or fur on their body, three middle ear bones, can keep their bodies warm even when it is cold outside, and the mothers produce milk to feed their babies.

Minerals: such as iron and calcium help you grow and stay healthy. Your body use minerals for many things, like carrying oxygen in your blood and helping your bones stay strong.

Nipple: the rounded tip at the center of a mammal's breast/chest.

Nurse: drinking mother's milk or taking nourishment from the breast/chest; also called breastfeeding or suckling.

Nutrients: the proteins, carbohydrates, fats, minerals, vitamins, and water.in food that help people and animals live and grow.

Proteins: builds and maintains organs (like your heart and kidneys) and muscles in your body. Protein is found in food like eggs, nuts, beans, fish, meat, and milk.

Vitamins: helps your body grow and stay healthy. For example, vitamin D (and the mineral calcium) in milk helps keep your bones strong.

Image Sources

Cover Page and Page 2:

Mammals. Group of different pets, a puppy, kitten, rabbit and a guinea pig. ID165709498 © [Miraswonderland](#) | [Dreamstime.com](#)

Page 2:

Frogs. *Two frogs*. ID87896050 © [Riza Arif Pratama](#) | [Dreamstime.com](#)

Birds. *Two birds Robins on a white isolated background* ID84610309 © [Natalia Bachkova](#) | [Dreamstime.com](#)

Page 3:

Fish. *Tropical reef fish* ID10036993 © [Vladvitek](#) | [Dreamstime.com](#)

Reptiles. *Sea turtle underwater* ID31711759 © [Paul Kennedy](#) | [Dreamstime.com](#)

Dolphin. *Dolphin isolated* ID60933496 © [Brett Critchley](#) | [Dreamstime.com](#)

Page 8:

Baby rabbits in a nest. *Rabbits at Burrow* ID144740174 © [Alexey Stiop](#) | [Dreamstime.com](#)

Polar bear nursing. *Polar bear nursing cubs* ID208830345 © [Outdoorsman](#) | [Dreamstime.com](#)

Page 9:

Kangaroo with a joey in her pouch. *Isolated Kangaroo with Cute Joey* ID14991728 © [Smileus](#) | [Dreamstime.com](#)

Photos of parent and child on pages 4, 9 and 12 are property of the DC Breastfeeding Coalition.

