

Beef Cows

Alaska Agriculture in the Classroom for Pre-K (Ages 3-5)

Lesson Goal

The goal of this lesson is to teach Pre-K students how to recognize beef cows and to care for them, recognize the taste of beef, and understand that beef products provide nutrients for personal health.

Student Objective

The student will recognize the difference between beef and dairy cows and the products of each, participate in a group and physical activity, communicate that beef products are a healthy



choice of food, and make healthy food choices.

Activities

- **Story Time:** Alaska Agricultural Story, Children's Books
- **Exploring:** Beef or Dairy?, Moo-Charades and Building Burgers
- **Creating:** Cow Handprints, Cow Mask
- **On the Go:** Walking with Cows
- **MyPlate:** Making Healthy Food Choices, Mini Beef Tacos and Sloppy Beef Sliders

Vocabulary

Beef, meat, protein, cud, hoof, herd, calf, and ranch.

Rubric

Alaska Early Learning Guideline Domains	Student Target	Facilitating Activities
1 – Physical Well-Being, Health, and Motor Development	The student participates in a physical activity, involving coordination and movement. The student recognizes and participates in making and eating nutritious foods.	<ul style="list-style-type: none"> • Walking with Cows • Mini Burger Tacos
2 – Social and Emotional Development	The student participates in a group activity, displays cooperative teamwork to accomplish a group goal, and recognizes individual contributions.	<ul style="list-style-type: none"> • Walking With Cows
3 – Approaches to Learning	The student sustains attention on a multi-task project with specified requirements.	<ul style="list-style-type: none"> • Building Burgers
4 – Cognition and General Knowledge	The student communicates comprehension by recognizing the images of animals and is able to show understanding of how to care for them. The student is able to choose healthy foods.	<ul style="list-style-type: none"> • Beef or Dairy? • Making Healthy Food Choices, Mini Beef Tacos, and Sloppy Beef Sliders
5 – Communication, Language, and Literacy	The student listens with attentiveness and curiosity. The student mimics sounds and actions.	<ul style="list-style-type: none"> • Story Time • Moo Charades

Story Time!

Agriculture in Alaska

The Alaskan Cowboy

Hey Kids, gather round and let me tell you a few things about ranching in Alaska. You might ask “What is a rancher?” “What do they do?” Well, ranchers are people who have large groups of animals. Some might have reindeer, some might have bison or elk, but I have beef cattle. There are momma cows that have babies in the springtime. There are middle sized animals that are growing up to be big cows. And we have papa cows that are called bulls. They all live together on a large piece of land that we call a ranch.

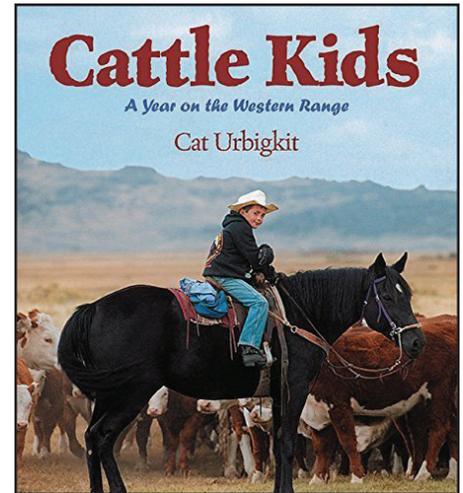
The rancher’s job is to provide a big happy home for this big family of cows and calves. They like lots of room with grass to eat and spaces for their calves to run and play. They like shady places when the sun is hot and ponds with water to drink and play in. When winter comes, the cows grow their own fur coat so they can stay warm when their world gets cold.



The rancher has big barns full of bales of hay. He has big tractors to plow through the snow to feed the cows when the snow has covered their grass. So, I’ve told you a few things about ranching in Alaska. Why don’t you come back next time and I can tell you a whole lot more about ranching in Alaska. –*Chris Rainwater from Homer Alaska*



To watch a video of Chris Rainwater reading this story, please visit:
https://youtu.be/AuJalu_tr8A



Children’s Books

Materials

- Cattle Kids: A Year on the Western Range by Cat Urbigkit
1. Read Cattle Kids: A Year on the Western Range to the students.
 2. Discuss how beef cows are raised and how burger is made from beef cows.
 3. Review how beef cows are cared for, including the types of food they eat, shelter they need, space to run, and veterinarian health care.



Exploring

Beef or Dairy?!

Materials

- Images of dairy and beef cows and beef and dairy food products
- Paper MyPlate images (for drawing on)
- Colored pencils or crayons

1. Show the students images of Dairy and Beef cows. Ask them what the differences might be.

2. Discuss how dairy and beef cows are the same species but are different. Dairy and beef cows can be many different colors, including brown, black, white, and spotted. Dairy cows are often lean, whereas beef cows are often more muscular.

3. Discuss that dairy and beef are both cattle. Both can be eaten as meat. Both female dairy and beef cattle are called cows and produce milk after giving birth to their first baby—a calf. Female beef cows produce enough milk to raise their own calf, but not enough for humans to drink. Dairy cows produce more and better milk than beef cows, so humans milk dairy cows for drinking. Male cows do not produce milk. Beef cattle produce better meat than dairy for eating, so humans raise beef cattle for meat.

4. Place the students in small groups. Give each group images of beef and dairy products and an image of a beef and dairy cow.

5. Ask the students to place the dairy products on top of



Beef Cow



Dairy Cow

the dairy cow and the beef products on top of the beef cow.

6. Take turns looking at each group's choices and discuss whether each product is beef or dairy.

7. Ask the students what kinds of beef and dairy products they like to eat.

Extension: Ask students to choose one item from dairy and one from beef and draw them on a paper MyPlate image.

Contemplation: Ask the students why they think it is important for farmers to care for their cows? What would happen if farmers didn't raise beef or dairy cows? Why might it be difficult to raise beef or dairy cows in Alaska?

Moo–Charades

1. Ask students what kind of noises cows make.

2. Demonstrate out loud the different noises cows make: mooing (moo) chewing cud (chomping), walking on hooves (stomping), flicking tails (swishing), and sleeping in the hay (breathing). Add actions to each noise: tilting heads up when mooing, smacking lips when chewing cud, stomping feet while walking around the room, swinging arms to flick tails, and breathing slowly while sleeping in the hay.

3. Explain that you will act out a 'cow' action without the noise and the students should shout out the name of the 'cow' noise and mimic the action.

4. Repeat for each 'cow' noise as a demonstration to the class.

5. Ask the students to find a partner and have them take turns guessing which 'cow' noise or action they are acting out for each other.

Chomp!
Moo!



Building Burgers

Materials

- Burger-part color-printed pages
- MyPlate place mats
- Scissors
- Crayons

1. Ask students where they get their food. Is it from the grocery store or a farmer's market? Did they grow it in a garden or gather it from the wild? Where does the grocer get the food—from another store or a farmer?

2. Ask students if they know what a burger is? What do they eat on their burger?—Lettuce, pickles, onions, ketchup, mustard, and buns.

3. Hand out the Burger-part pages. Ask the students to cut build a burger of their own and place it on their MyPlate image.

4. Discuss the sources of each ingredient of their burger. The burger meat comes from beef cattle, the bun is made of grain ground into flour, the lettuce, pickles, tomatoes, and onions are grown in a garden, and the ketchup and mustard sauces are made from vegetables, herbs, seeds, and oils.

Options: Precut the burger parts and laminate them for reuse. Laminate the MyPlate place mats for reuse.

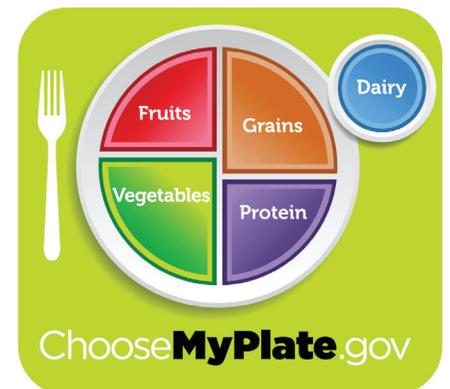
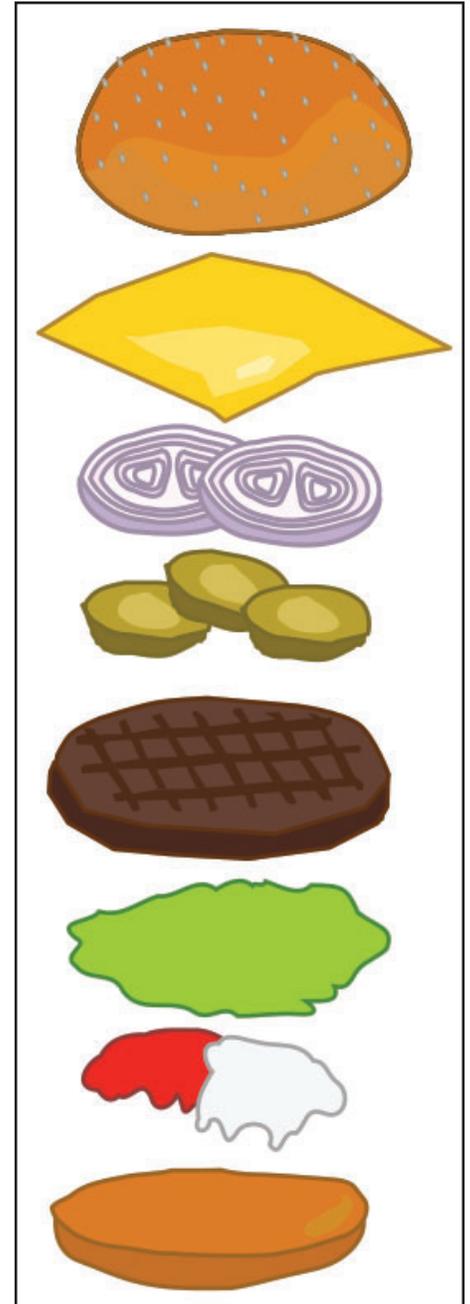
Instead of using the color-printed pages, demonstrate how to draw and color the parts of the burger and then have the students cut them out.

Contemplation: Was your food grown in Alaska? Where was it grown in Alaska? Where



else would it come from? How did it get to Alaska? Have you grown your own food? Would you like to grow your own food? What would you grow?

Extension: Ask students to draw a picture of a farm with a garden. Ask the students to add pictures of the sources of each of their burger parts growing on the farm. For example: dairy cows for cheese, beef cows for burger, and vegetables in the garden.



Creating

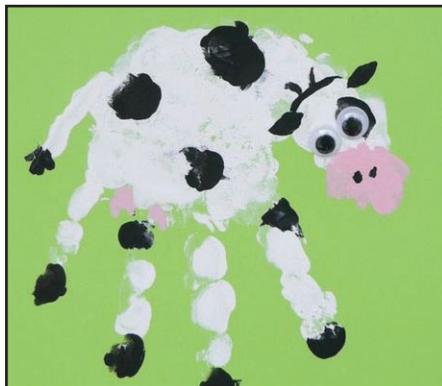
Cow Handprints

Materials

- Non-toxic finger paints
- Construction paper
- Painting brushes
- Bowls of water, for rinsing brushes between colors
- Paper towels
- Painting aprons to keep children clean
- Plastic mixing trays, old plastic lids work well too

Instructions:

1. Set up your classroom for each student by placing out a bowl of water, a paint brush, paper towels, a mixing tray and an apron. Assist students in putting on their aprons.
2. Place a piece of construction paper in front of each student and some finger paint onto the plastic tray.
3. Demonstrate how to make a handprint by gently pushing their hand into the paint on the tray, opening up their hand with all fingers apart, and then pushing their hand onto the construction paper.
4. Ask students to wipe off their hands with the paper towel and place the towels on the table.
5. Explain that the thumb is the head of the cow, the palm is the body, and the fingers are the legs. Demonstrate how to use the paint brush to add ears, a tail, and a small oval under the tip of the thumb for the mouth.



6. Place other colors of watercolor paints onto the plastic tray and then demonstrate how to add eyes, nose holes, mouth, a mane, and spots on the cow. Demonstrate how to rinse their brush in the bowl of water to clean it between the use of different colors.
7. Assist students with washing in the sink and cleaning up their areas when finished.



Cow Mask

Materials

- Paper plate
- Black paint
- Black markers
- Pink and black cardstock
- Glue
- Large Googly eyes (optional)
- Elastic thread or a craft stick

Instructions:

1. Paint black patches on the plate, leaving a white stripe in the middle.
2. When the paint is dry, carefully cut two eyeholes if you want holes.
3. Optional, draw eyes on or use large googly eyes.
4. Cut 2 ears from black cardstock. Glue these to the top of the plate.
5. Cut a nose from pink card. Draw on the nostrils and glue to the front of the plate.
6. To wear the cow mask, either make a hole on either side of the plate and tie some elastic through, or tape a craft stick to the bottom of the plate so that the mask can be held in front of the face.

On the Go!

Walking with Cows

Materials

- Room to set up 3 stations
- 3 chairs
- 3 blankets or carpets
- Pictures of cows (1 eating and drinking, 1 sleeping, and 1 playing)

1. Explain that all farm animals need basic things to survive, just like humans. Ask students what basic things they need to survive. Explain that cows need similar things, such as food, water, shelter—for protection and sleeping, and a home to live and play in. Explain that cows need shelter and space to roam—a home.

2. Ask the students to share what they know about what kind of shelter and space they need. Ask the students what they do every day. They eat, sleep, and play. Explain that cows eat, sleep, and play also.

3. Set up the stations, by placing three chairs, blankets or carpets about 10-20 feet between them. Place a picture of a cow eating, sleeping, and playing at the station—one each.

4. As a group, start at the sleeping station, explain that cows sleep on the ground or in the straw in a barn. Ask the students to act out waking up like a cow. Sounds and actions from the Moo-Charades game could be incorporated too.



Eating – chomping



Drinking – slurping



Sleeping – breathing deeply



Playing – running and jumping

5. Continue your walk with the students to the eating area and explain that cows eat hay and grain and drink water. Ask the students to act out eating hay and grain and drinking water.

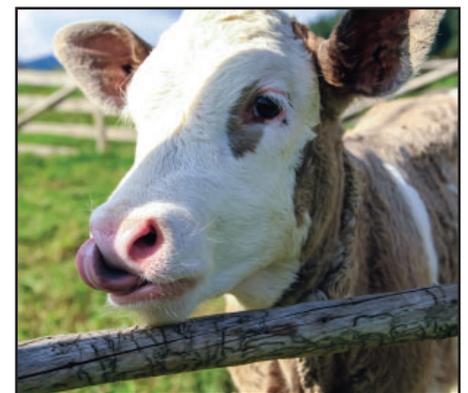
6. Continue your walk to the playing station and explain that cows play by running and jumping around in fields. Ask the students to act out playing by running and jumping around.

7. Continue the walk for seven rounds, to mimic the life of a cow for one week, 7 days.

Running or Relay Game:

Divide the students into three groups and have the students rotate between the stations. Set up the stations in an open area and use exercise cones for stations. Conduct the activity as a running game or as a relay.

For a relay, divide the students into teams and have one member of each team complete the stations and then return to tag the next team member—who then completes the stations.



MyPlate

Making Healthy Food Choices

Materials

- MyPlate Place Mats, laminated for reuse
- Burger Parts from Building Burgers Lesson

1. Pass out the laminated MyPlate place mats and explain that it shows the five food groups a person should eat from, each day, to grow up healthy.

2. Point out the different colors and types of foods that belong to each group.

3. Demonstrate how to match up their burger parts with the food groups on their MyPlate place mat by setting them on the corresponding space.

4. Discuss how a burger could include all of the required food groups by adding toppings to the burger. Point out that beef (burger) fills the space on the MyPlate poster as a good source of protein.



Mini Beef Tacos

Materials

- Electric skillet
- Spatula
- Colander
- Large bowl
- Paper plates

Ingredients

- 1 pound ground beef
- Soft taco shells or tortillas, cut into small wedges
- Toppings: lettuce, tomatoes, bell peppers, onions, and shredded cheese, chopped or cut in small bite-sized pieces
- Powdered taco seasoning

1. Saute' the peppers and onions in the electric skillet with a small amount of vegetable oil, until softened. When done, place them into a bowl.

2. Brown the beef in the electric skillet, about 8 minutes. Drain the juices using the colander, add the taco seasoning, and mix well.

3. Lay the taco shells flat on a microwave-safe dish and heat for 20-30 seconds to soften them.

4. Spread 1 tsp of ground burger on each shell and add the toppings. Add cheese on and then place another taco wedge on top.

5. Place the wedges onto a plate and microwave for about 15-20 seconds, just until the cheese melts.

6. Cool slightly being serving on paper plates. Show the students how to cool them by gently blowing on it before touching.

Sloppy Beef Sliders

Materials

- Electric skillet with a lid
- Wooden spoon
- Colander
- Small paper plates

Ingredients

- Ground beef
- 1 Tbsp vegetable oil
- 1 pound of ground beef
- 1 tsp salt
- 3/4 cup ketchup
- 1 Tbsp light brown sugar
- 1/2 cup frozen crinkle-cut baby carrots
- 1/2 cup frozen baby corn
- Small dinner rolls

1. Heat the oil in the electric skillet over medium heat. Add the ground beef and salt and cook until browned, about 8 minutes, stirring frequently.

2. Carefully drain off all the excess liquid, except 2 tbsp. Reduce the heat to low and stir in the ketchup, sugar, and 1/2 cup of water.

3. Simmer the mixture until the sauce is slightly thickened, about 8 minutes, and then stir in the carrots and corn.

4. Continue cooking, partially covered, until the vegetables are tender and heated through, about 5 minutes.

5. Place a spoonful of the beef sauce on one half of each bun and top with the other half. Serve on paper plates with a napkin and caution the students that they may be sloppy!

References

The activities in this lesson have been, in part, adapted from the following references:

Rubric

- Alaska Early Learning Guidelines– <https://www.alaskaelg.org/goals-by-domain/>

Agriculture in Alaska

- The Alaskan Cowboy: Chris Rainwater–rancher, Homer, Alaska and Board Chairman, Homer Soil and Water Conservation District

Children’s Books

- Cattle Kids: A Year on the Western Range, Cat Urbigkit, Astra Publishing House, September 2007

Beef or Dairy?

- Milk or Meat? Beef or Dairy, National Agriculture in the Classroom– <https://www.agclassroom.org/matrix/lesson/267/>

Moo-Charades:

- Written by Diane R. Hunt

Building Burgers

- Where Does your Cheeseburger Come From?, National Agriculture in the Classroom– <https://www.agclassroom.org/matrix/resource/942/>
- Burger Graphic– <https://openclipart.org/detail/309326/parts-of-a-hamburger>

Cow Handprints:

- Fun Handprint Art– <https://funhandprintartblog.com/>

farm-animal-handprints-duck-and-cow.html

Walking with Cows:

- Written by Diane R. Hunt
- Calves Playing Image– <https://www.dairynz.co.nz/milking/dairy-stockmanship/tail-management/>

Making Healthy Food Choices

- Grow It, Try It, Like It, U.S. Department of Agriculture– <https://www.fns.usda.gov/tn/grow-it>
- MyPlate Place Mat, U.S. Department of Agriculture– <https://www.myplate.gov/resources/graphics/myplate-graphics>

Mini Beef Tacos:

- Written by Diane R. Hunt

Sloppy Beef Sliders:

- Food Network– <https://www.foodnetwork.com/recipes/food--network-kitchen/kids-can-make-sloppy-joe-sliders-3363890>

Your Resources:

Resources

- Alaska Early Learning Guidelines– <https://www.alaskaelg.org/>
- MyPlate Poster and Place mat– <https://www.myplate.gov/resources/print-materials>
- MyPlate Tools, Graphics, Print Materials, and Videos– <https://www.myplate.gov/resources>
- Alaska Agriculture in the Classroom Lessons– <http://www.fairbankssoilwater.org/akagintheclassroomlessons.htm>
- National Agriculture in the Classroom Lessons– <https://www.agclassroom.org/matrix/>



Beef Cow and Calf



Jersey Dairy Cow and Calf

Burger Parts



Burger Bun Top



Burger Bun Bottom



Cheese



Burger

Burger Parts



Tomato



Onion



Pickles

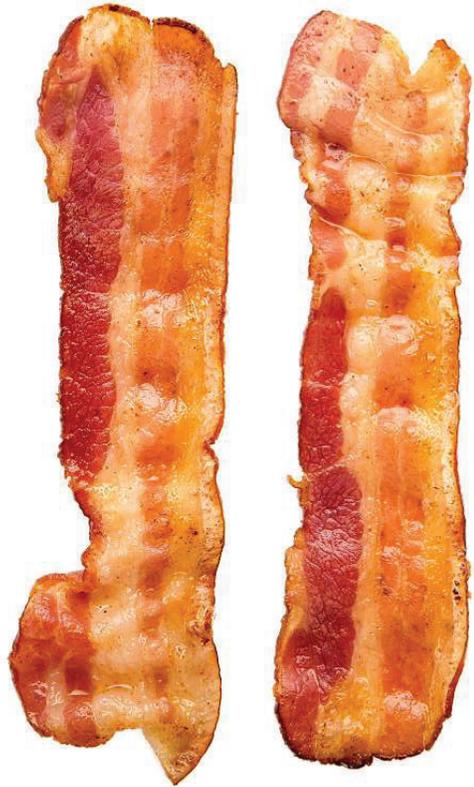


Lettuce

Burger Parts



Ketchup & Mustard



Bacon



Burger

Walking with Cows



Eating – Chomping



Drinking – Slurping

Walking with Cows

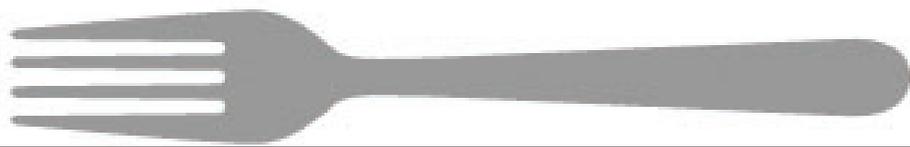
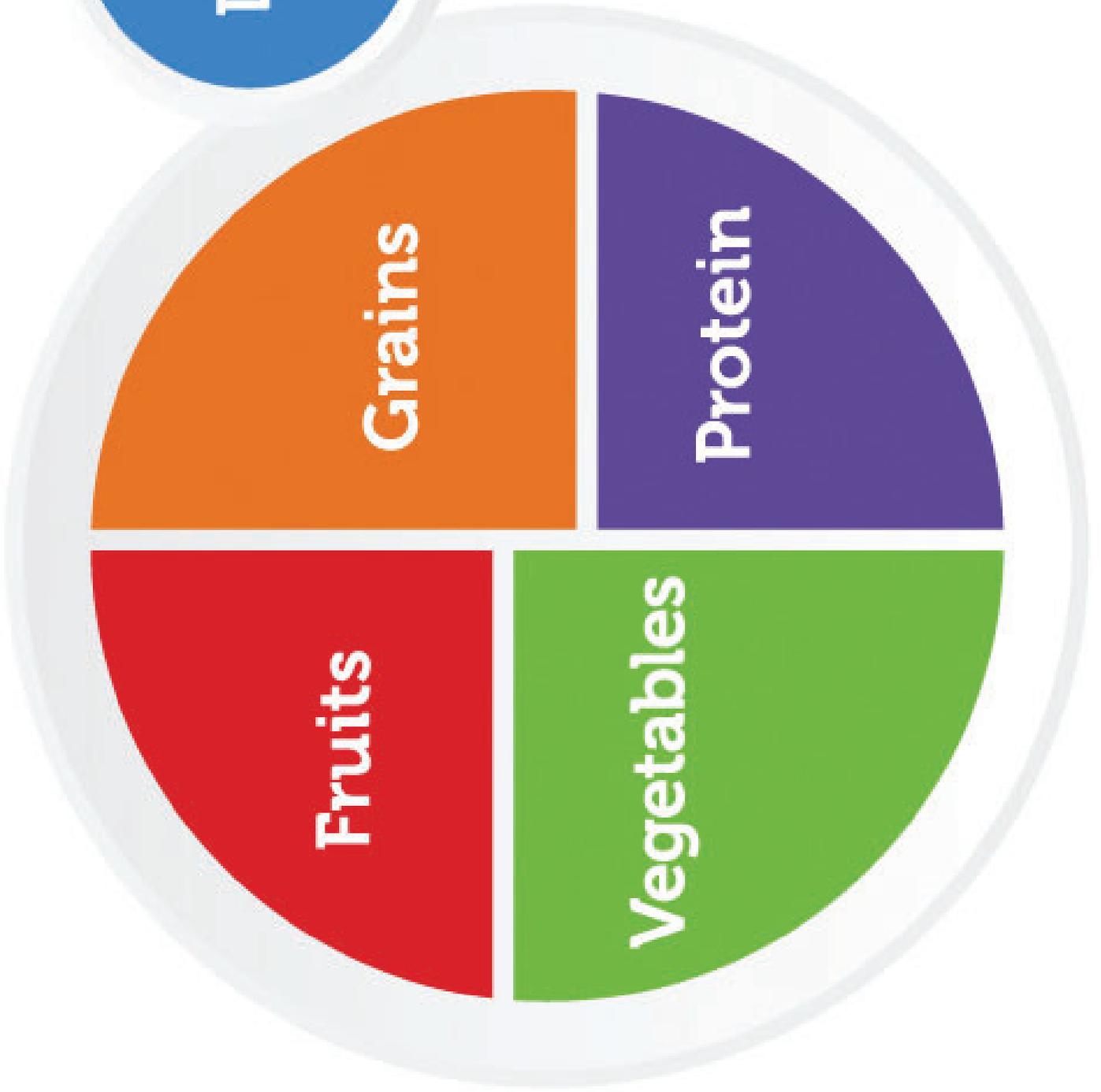
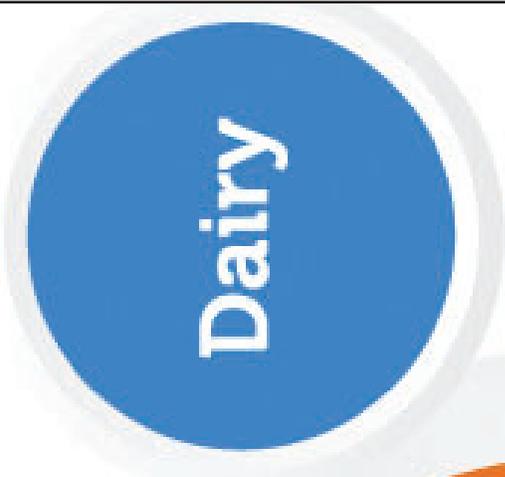


Sleeping – breathing deeply



Playing – jumping and running

MyPlate Place Mat



What's MyPlate All About?

