

# Teacher's Manual – Carnivore/Herbivore Week



This kit contains a week's worth of Lunch and Learn type activities – that is, five half-hour lessons related to the theme of Carnivores and Herbivores. It contains instructions and materials for all activities, with the exception of a grid tarp (used on Monday), which is located in the storeroom.

## Goals

- **Students will learn basic attributes of carnivores and herbivores.**
  - Carnivores are meat-eating and have claws, teeth or sharp beaks, and both eyes looking forward (which helps them judge distance to their prey).
  - Herbivores are plant-eating and have feet built for locomotion, flat teeth, and each eye looking to the side (which gives them a wide field of vision without moving their heads).
- **Students will be able to look at skulls (or pictures of skulls) and accurately determine whether the animal eats meat or plants.**



## Notes

- Please read through these instructions before delivering the unit – there's more to many of the lessons than simply showing kids flash cards.
- Each day draws on the knowledge gained the previous day. This repetition reinforces the learning and helps kids remember. Be sure to do some sort of review of yesterday's topics before starting the new day's topics.
- Feel free to improvise on the lessons laid out here!
- The kids always seem to bring up the topic of dinosaurs, even though they are not covered in this unit. You can deal with dinosaurs in several ways:

- Use them as a point of reference. For example, you could say, "Just like dinosaurs, some mammals eat only meat and some mammals eat only plants."
- Draw a grid and ask kids to give examples of carnivores and herbivores from three different groups: mammals, birds, and dinosaurs.
- You can also compare dinosaur skulls to some of the bird skulls – the Tyrannosaurus skull resembles a hawk skull and the Pachycephalosaur skull resembles a parrot skull, especially around the eye sockets.

	Carnivores	Herbivores
Mammals		
Birds		
Dinosaurs		

- We also don't have a formal section on omnivores, but the topic often arises naturally during the art project. Kids start asking "Can I draw something that's a mix between a carnivore and herbivore?" or "Can I draw a person?" It's a natural point to talk about what omnivores eat and what their skulls look like. Use your own teeth as a demo!

# Day One: Predator/Prey Game

## Description:

This game is based on the “Migration Game,” where students try to find – and remember – a hidden path across a grid on the ground. Students are a herd of deer trying to get from their current location at the bottom of the grid to the water hole at the top of the grid. Some squares are “safe” – meaning they are on the path. Other squares are not safe. The object is to get the entire herd to the water hole by moving from safe square to safe square.

“Water Hole” (end)					
			X		
			X		
				X	
			X		
		X			
	X				
“Herd” (start)					

## Goals:

- Teambuilding, cooperation, getting to know each other

## Materials:

- Grid tarp (for indoor play) or chalk (for outdoor play). In a pinch, let the tiles on the floor serve as your “grid.” *The grid tarp is in the storage closet, not in this box.*
- Path cards (or make up your own paths)
- Blindfolds (for advanced game) *From your kit*

## Setup:

- Unfold the grid tarp, or use chalk to draw a 6x6 square grid on the ground. Each square should be 18”-24” on a side.
- Decide if you’re playing a regular or advanced game (see below) and pick a “path card” from the pack.
- Explain the rules.

## Rules:

- At the beginning, only the instructor knows the path. Students must guess the path by stepping on squares and remembering the “safe” squares.
- Students can only move one square at a time. For a regular game, movement is to the front and the left and right diagonals only – not to the side or backward.
- If a student steps on a safe square, they may pick another square.
- If a student steps to an unsafe square, their turn ends and they go back to the herd (end of line).
- Students are encouraged to help each other across.
- If one or more students has made it to the water hole, and a kid picks an unsafe square, everyone, including those who are already across, must return to the herd.

## Advanced game:

Some cards are for advanced games. There are two differences in advanced games:

- Students can move sideways as well as forward and diagonally (still no backward movement).
- Certain squares contain “predators.” If a student picks a predator square, they are blindfolded for the rest of the round. They may watch others walk across the grid, but must be blindfolded for their own turn. Let the kids help pick what happens if an “injured” animal lands on a predator square a second time – some options include hopping on one foot, keeping the blindfold on all the time, or no further consequences. Don’t take the student out of the game completely, though – that’s no fun!

“Water Hole” (end)					
	P	P	P		X
	X	X	X	X	
X	P				
X	X	P			
	X				
X	P				
“Herd” (start)					

## Day Two: Mammals

### Goals

- Students learn basic attributes of carnivores and herbivores. Mnemonic to remember about eye position: **“Eyes to the front, likes to hunt. Eyes to the side, likes to hide.”**
- Students apply this knowledge to pictures of three mammalian carnivores and three mammalian herbivores.

### Materials

- Fox skull (in plastic tube), deer skull, muskrat skull, coyote skull (missing teeth), fox jawbones.
- Tiger, hyena, and otter skull cards (8”x10”)
- Horse, beaver, and rhinoceros skull cards (8”x10”)

### Activities

5 mins.	<ul style="list-style-type: none"> <li>• Begin by asking students to think of lions and antelope. (For younger kids, you might ask them to pretend to <i>be</i> lions and antelope, and ask them questions “in character.”) Ask the kids to tell you:               <ul style="list-style-type: none"> <li>○ <b>What does each eat?</b></li> <li>○ Based on their food, <b>what physical features does each need</b> to survive?</li> <li>○ <b>Lead them toward these answers:</b> Lions eat antelope and need to have sharp teeth and claws to help catch prey. Their eyes are in the front of their head to help them judge distances very well. Antelope eat grass, so they need flat teeth. They also need to be able to run fast to get away from predators and have their eyes on the sides of their heads so they can see a wide range without turning their heads.                   <ul style="list-style-type: none"> <li>⇒ <b>Activity idea:</b> have kids turn their heads quickly from left to right and ask if this would be a good way to run when watching out for predators.</li> </ul> </li> <li>○ <b>The four attributes of carnivores:</b> eat meat; sharp teeth; claws; eyes point toward front</li> <li>○ <b>The four attributes of herbivores:</b> eat plants; flat teeth; feet for running; eyes point toward side</li> <li>○ Mnemonic to remember about eye position: <b>“Eyes to the front, likes to hunt. Eyes to the side, likes to hide.”</b></li> </ul> </li> </ul>
10 mins.	<ul style="list-style-type: none"> <li>• <b>Bring out the coyote and deer skulls.</b> <i>The skulls are delicate, but should hold up to handling. If you aren’t sure the kids will be careful, only pass around the fox skull in the tube.</i> Don’t tell the kids what they are. Let kids examine the teeth and eye sockets. Have them guess which skull is the carnivore and which is the herbivore. See if they can guess what animals the skulls represent. Pass the skulls around and let them have a good look.</li> <li>• <b>Bring out the muskrat skull.</b> Kids are often confused by the incisors; they seem to think they are “fangs” and will often say this skull belongs to a carnivore. Point out the differences: the space between the big front teeth, the flat back teeth, the difference in location of the rodent’s incisors (the front 2 teeth) and the carnivore’s canines (between the incisors and the molars).</li> <li>• As they are looking at the skulls, or just after, <b>bring out the 8”x10” pictures of skulls</b> listed above. Have them determine carnivore/herbivore for each one, and try to guess what type of animal it is. Teach them the names as you go along. Go slowly, teaching attributes as you go.</li> </ul>
5 mins.	<ul style="list-style-type: none"> <li>• Finally, quiz students on what they learned today:               <ul style="list-style-type: none"> <li>○ The 4 attributes of carnivores</li> <li>○ The 4 attributes of herbivores</li> <li>○ The food (meat or plants) of the animals discussed today (show skulls and cards)</li> </ul> </li> </ul>

## Day Three: Birds

### Goals

- Students review basic attributes of carnivores and herbivores
- Students apply this knowledge to pictures or artifacts of four bird carnivores and four bird herbivores

### Materials

- Owl skull replica – in Tupperware
- Turkey skull
- Screech owl, Red-tailed hawk, and vulture skull cards
- Cardinal, tanager, and parrot skull cards

### Activities

2 mins.	<ul style="list-style-type: none"><li>• <b>Review:</b> Ask students to remember the basic attributes of carnivores and herbivores.<ul style="list-style-type: none"><li>○ Activity idea: draw a grid on the board with columns labeled “carnivore” and “herbivore” and rows labeled “food,” “teeth,” “eyes,” and “feet”</li></ul></li></ul>
2 mins.	<ul style="list-style-type: none"><li>• <b>Ask how they think these attributes apply to birds</b>, who don’t have teeth or hooves. Have them think of a hawk and a duck if they need some prompting.<ul style="list-style-type: none"><li>○ Carnivores: eat meat; sharp hooked beak; claws; eyes point toward the front (even if they appear to be located on the sides of their heads)</li><li>○ Herbivores: eat plants; flat beak – either used as a spoon or nutcracker; eyes point toward the sides</li></ul></li></ul>
5 mins.	<ul style="list-style-type: none"><li>• <b>Bring out the owl and duck skulls.</b> <i>These skulls are more fragile than the mammals – you might not want to let the kids handle them.</i> Let kids examine the beaks and eye sockets. Have them guess which skull is the carnivore and which is the herbivore. See if they can guess what animals the skulls represent.</li></ul>
5 mins.	<ul style="list-style-type: none"><li>• <b>Bring out the six 8”x10” pictures of skulls.</b> Have them determine carnivore/herbivore for each one, and try to guess what type of animal it is. <b>The toughest one will probably be the parrot</b> – its beak is hooked and sharp, but the eye sockets point only to the side. <b>Compare with a hawk skull</b> – the hawk skull has oval eye sockets that let the eyes point forward.</li></ul>
2 mins.	<ul style="list-style-type: none"><li>• <b>Quiz</b> students on what they learned today:<ul style="list-style-type: none"><li>○ The attributes of bird carnivores and herbivores</li><li>○ The food (meat or plants) of the animals discussed today (show skulls and pictures)</li></ul></li></ul>
Time left	<ul style="list-style-type: none"><li>• <b>You will probably have extra time today.</b> Some ideas to fill the time:<ul style="list-style-type: none"><li>○ Play “Stalker” – one kid (the “bird”) sits blindfolded, guarding a Nerf ball (the “egg”). The others try to sneak up one or two at a time to steal the egg. The bird has to listen and point to the stalkers to send them back. If a stalker manages to steal the egg, she becomes the next bird.</li><li>○ Have kids get with partners. One kid covers an eye; the other holds up a hand. Have the kid with the covered eye try to slap the hand of the other kid. Then uncover both eyes and try again. It should be easier with both eyes – this demonstrates how binocular vision helps judge distances.</li></ul></li></ul>

## ***Day Four: Art project***

### **Materials:**

- Crayons, markers, or colored pencils
- Regular pencils
- Blank paper

### **Activities:**

- Students create their own carnivore or herbivore, either based on a real animal or completely imaginary. The animals should clearly show the attributes of its class (beaks, claws, eyes, hooves, etc.)
- At the end of class (or at the beginning of the next day), have each kid share her/his drawing. The instructor should be able to guess what the animal eats by looking at the picture.

## ***Day Five: Quiz Game***

### **Materials**

- Pack of question and skull cards (4"x6")
- A treat or prize for the whole group

### **Activities**

- Students stand in a line so all are facing the instructor or sit at desks.
- One at a time, students are asked either a question from the pack of Question Cards or they are asked to look at a skull card and tell what kind of food that animal eats.
- Ask each student a total of three questions.
- Keep track of group points. If the group reaches a certain number of points (two points per student is a good estimate), the group gets a prize. e.g., if there are 15 kids in the group, they need to get 30 points to get the treat.