

ECOS Inquiry Template

1. Contributor's Name: Alison Perkins

2. Name of Inquiry: Bird of the Week

3. Goals and Objectives:

a. Inquiry Questions: What characteristics are useful in identifying birds? What are some of the birds found in our schoolyard? What are some of the interesting Montana birds?

b. Ecological Theme(s): Being able to identify the creatures in an ecosystem is fundamental to teaching ecological concepts.

c. General Goal: To help students understand the importance of observations, especially when identifying birds and other animals and plants.

d. Specific Objectives: To give students the tools necessary to identify different birds and to teach them about some of the birds in their schoolyards.

Academic: Taxonomy is vital to establishing a common discussion thread.

Procedural/technical: Identification develops good observations skills about shape, size, color, and song, as well as habitat.

Social: Students work as part of a team using bird identification guides and web sites

Communication: Students provide written explanation of students' thinking and ideas

e. Grade Level: 3-4

f. Duration/Time Required: 40 weeks – one bird per week

→ **Prep time** – 5 minutes

→ **Implementing Exercise During Class** – 20 minutes

→ **Assessment** – weekly worksheet; portfolio (end of year)

4. Ecological and Science Context:

a. Background (for Teachers):

Over 800 species can be found in the continental United States; over 400 have been recorded in Montana. The task seems less daunting when we consider only Montana birds (250 species breed here and 163 species of birds overwinter here), so depending on the time of year, the list is a little more limited. The important thing to remember is that anyone can identify birds with the proper skills and a good field guide (or website). Key characteristics include the bird's overall size and shape, including its bill shape and size, characteristics of its legs (color, length, whether feathers are present), wing shape and size, and coloration (specifically areas of strong color contrast).

Species were chosen for a variety of reasons, mostly because they are common in the area and are easy to see at the time of year they will be encountered in the Bird-of-the-Week inquiry. Other birds were selected because they allowed students to make comparisons between closely related species, such as Cedar Waxwings (which are summer residents in the Missoula area) and Bohemian Waxwings (which are winter residents here). Violet-Green Swallows are part of the inquiry, but a very similar species, the Tree Swallow is not, only because of time limitations. It can serve as extra credit, as can the Western Kingbird that behaviorally is very similar to the Eastern Kingbird but distinct in color pattern. In addition, some species were included because they are uniquely interesting to parts of Montana – they have good stories.

Beginning with silhouettes allows students to focus on the shape aspects of bird identification without overwhelming them with other details. It also allows them to explore their understanding of adaptations and their possible functions by guessing at the types of foods and habitats in which the birds might be found. As teams, students can then explore websites and field guides to determine the bird's coloration, food habits, and habitats. As the year goes on,

students should begin to hone in on adaptations associated with particular life histories and habitats.

b. Background (to present to Students):

Identifying birds is fun, but it's not easy. You need to be able to focus on key characteristics including the bird's overall size and shape, its bill shape and size, characteristics of its legs (color, length, whether feathers are present), wing shape and size, and coloration (specifically areas of strong color contrast). Each week, first try to make some good guesses about the bird based on its silhouette. Think about how big it is, its bill, and its legs. Based on these characteristics, think about what and how it eats. An **omnivore** is a generalist; it eats just about anything. Other birds are more specific in their foraging. Some eat insects primarily (**insectivores**), others eat fish (**piscivores**), others fruits (**frugivores**), and still others seeds (**herbivores**). How it eats is another thing to think about. For example, some birds catch insects on the wing soaring (**soarers**), others hop along on the ground (**hoppers**). Other birds are **waders**, they wade along shorelines, rivers, marshes. **Creepers** climb up and down the trunks of trees searching for food, and **stalkers** sit and wait for prey to come near enough for a stealthy catch. After you've thought about the silhouette and answered these questions, you will look at some sources to find out what colors the bird is and where the different colors can be found.

Next, go to the web and the field guides. If the males and females of a certain species don't look alike, that is called **sexual dimorphism** – it is fairly common in birds. Males are not always bigger and brighter than females, however, so don't make any assumptions. Choose whether you want to color the bird-of-the-week as a male or as a female (make sure you note that on your drawing). You will need to trace the outline of your silhouette, and then color it in. Make sure to match the color of the bird and especially where that color is on the bird. Think about areas of contrasting color, for example where there is black and white. What about when the bird is in flight or standing? Is there some useful identification for a bird in flight that isn't so easy to see when the bird is not flying? Fill in the Bird-of-the-Week Worksheet and attach it to your tracing and your silhouette.

5. Motivation and Incentive for Learning:

Birding is fun and challenging. Outdoor experiences are enhanced when we are able to identify the things we see. Students can learn about these birds then go outside and find them!

6. Vocabulary:

For the question, "What kind of eater do you think it is?"

omnivore (eats everything it can get)

insectivore (eats insects primarily)

herbivore (eats parts of plants, like seeds)

frugivore (eats fruits with flesh, like berries)

piscivore (eats fish)

For the question, "How do you think this bird moves around?"

soaring (spends most of its time in flight)

hopping (hops along on the ground)

wading (wades in water along shorelines, rivers, marshes)

creeping (climbs up and down the trunks of trees searching for food)

stalking (perches and waits for food to come within striking distance)

sexual dimorphism – differences between sexes in size and/or color.

7. Safety Information: none

8. Materials List (including any handouts or transparency masters):

bird silhouette for the week (one copy per student)
 sheet of paper for tracing the outline of the silhouette
 Bird-of-the-Week Worksheet (1/2 sheet, one copy per student)
 bird identification guides (such as National Geographic) and/or web access
 Sorting Cards (each sheet cut into the 4 squares, one set)

9. Methods/Procedure for students:

Provide each student with a copy of the silhouette of the week bird. Have students write their thoughts about the bird's size and shape, their bills, and their legs on the silhouette. Students should use their imaginations and best guesses based on the characteristics of the birds to fill in what they think the bird eats and how the bird moves around.

Once students have the questions on the silhouette filled in, have them trace the outline on a new piece of paper. As teams (or as individuals), students should then go to the websites provided below and/or use field guides to fill in the colors and patterns on the outline of the bird and the **Bird-of-the-Week Worksheet** (provided at the end of the inquiry). Some birds are sexually dimorphic

At the end of the year, use the **Sorting Cards** to have students group birds by some of the features discussed so far. See if they notice any common adaptations for that group. For example, have students group birds by feeding style and discuss what might be a good adaptation for insectivores or waders.

10. Assessment: Weekly worksheets (1/2 sheet) can be assessed for accuracy and completeness. In addition, the silhouettes can act as an assessment portfolio; by the end of the year, students should be honing in on the characteristics of birds, their adaptations, and their lifestyles. Also, the sorting cards can be used to assess students' understanding of bird characteristics and adaptations.

11. Extension Ideas:

Song: Students can learn the songs of each species and describe them on the worksheet.

Mathematics: Students can calculate the size of the bird based on the scale provided on the silhouette.

Language: Students can dissect the scientific name to learn its etymology. Several books are available on etymology of scientific names, including *Latin Names Explained: A Guide to the Scientific Classification of Reptiles, Birds and Mammals* by Arthur Frederick Gotch.

Here's a start (from uk.rec.birdwatching):

Adjectives: color, pattern, and size	
albus/alba	white; cf albino
ater/atra	black
brachy-	short (Greek)
brunne-	brown
caeruleus	blue
canus	grey
chloro-	green or yellow (Greek)
cinerea-	grey or ash-coloured; cf cinders
erythro-	red (Greek)
flava	yellow
fuscus/fusca	dusky
guttatus	speckled or spotted
haema-	blood-red (Greek); cf haemoglobin
leuco-	white (Greek)
livia	blue-grey
longi-	long

luteus/lutea	yellow
major	greater
mega-	great (Greek)
melas	black (Greek); cf melanistic
minor	lesser
niger/nigra	glossy black; cf negro
punctatus	spotted; cf punctuation
pusilla	tiny
rosea	rosy
ruber	red
rufus/rufa	red
striatus/striata	striped
viridis	green
Parts of the body	
cauda	tail
-cephalus	head (Greek)
-ceps	capped, headed
cilla	tail
collis	neck
dactyl	finger or toe (Greek)
frons	front, i.e. forehead
-gularis	throat
-ops	eye
-opsis	face
pennis	feather
ptera	wing (Greek)
-rhynchos	bill (Greek)
-rostris	bill
torquatus	collared

So, for example, the American White Pelican is named *Pelecanus erythrorhynchos*, which literally means pelican (*pelecanus*) with a red (*erythro-*) bill (*-rhynchos*). [Z250 - Latin & Greek Roots Index](#) from the University of Alberta is another site to look for names.

12. Scalability: With the extensions, this lesson can easily be adapted for higher grade levels to include more details about mapping bird distributions, vocalizations, plumage variation, and migration. Moreover, armed with an understanding of a species or group of species, students can be encouraged to develop questions that might be investigated through inquiry, for example exploring the relationship of bill shape and habitat.

13. Science Standards Accomplished:

From the *National Science Education Standards* (<http://www.nap.edu/readingroom/books/nses/>)

UNIFYING CONCEPTS AND PROCESSES STANDARD:

- *Systems, Order, and Organization:* The natural and designed world is complex; it is too large and complicated to investigate and comprehend all at once. Scientists and students learn to define small portions for the convenience of investigation.
- *Evolution and equilibrium:* Evolution is a series of changes, some gradual and some sporadic, that accounts for the present form and function of objects, organisms, and natural and designed systems. The general idea of evolution is that the present arises from materials and forms of the past.

- *Form and function*: Form and function are complementary aspects of objects, organisms, and systems in the natural and designed world. The form or shape of an object or system is frequently related to use, operation, or function. Function frequently relies on form.

CONTENT STANDARD C (Life Sciences):

- *The characteristics of organisms*
- *Organisms and environments*

MISSOULA COUNTY PUBLIC SCHOOLS SCIENCE CURRICULUM:

- *Standard #1 – Science as Inquiry*
 - Organize and use data to construct a reasonable explanation (Grade 4)
 - Reflect on and communicate investigations and explanations and make recommendations for further study (Grade 4)
- *Standard #2 – Unifying Concepts of science*
 - Use grade-level appropriate strategies to apply scientific concepts, processes, and vocabulary which include the following:
 - b. Models, evidence, and explanation
 - d Evolution and equilibrium
 - e Form and function
 - f. Design innovation.
- *Standard #5 – Life Science*
 - Compare, investigate, describe, and record properties of animal structures (Grade 3)
 - Observe, compare, investigate, describe, and record animal behaviors (Grade 3)
 - Identify adaptations and behaviors that help animals meet their needs (Grade 4)
 - Although not specifically related to organizing living things into the five kingdoms or using characteristics to classify species as invertebrates and vertebrates, this inquiry helps in developing both skills (Grade 4)

14. References:

[Montana, Fish Wildlife & Parks Animal Field Guide: Birds](#) – This guide provides information on identification, habitat, ecology, reproduction, range, and distribution of Montana's birds and includes references, range maps, and photographs.

[Birds of North America by Wild Bird Centers: The Ultimate Backyard Nature Store](#) – although the bird guide is part of a commercial site, it has great artistic renditions of birds, general range (with maps) and habitat information, and great sound recordings. The site also allows beginning birders to narrow their search by color, wing shape, bill shape, and a host of other categorizations.

[All About Birds by Cornell Laboratory of Ornithology](#) – a great site that summarizes the most up-to-date research from the Birds of North America series. The site includes images, video, and sound recordings, as well as breeding and wintering distribution maps.

[Patuxent Bird Identification InfoCenter](#) – Basic identification and life history information, plus some recordings of vocalizations provided by the USGS Patuxent Wildlife Research Center. The site includes density maps for data collected during Breeding Bird Surveys and Christmas Bird Counts.

15. List of Experts and Consultants:

Kristi DuBois, Montana Fish, Wildlife & Parks









Bob Petty, Education Coordinator, [Montana Audubon](#)








Jock Young, Amy Cilimburg, [Avian Science Center](#)

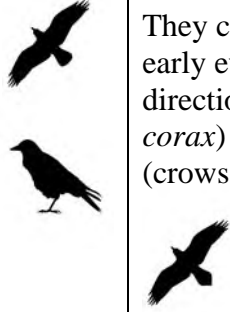







[Five Valleys Audubon](#)









16. Evaluation/Reflection by Fellows and Teachers of how it went:










This inquiry has not been tested.

	Species*	Silhouette	Interpretation
September			
1	American White Pelican <i>Pelecanus erythrorhynchos</i>		Pelicans are easy to recognize. They breed in Montana and can be seen on rivers, ponds, and lakes in western Montana all through the summer, so students may have observed pelicans during their summer vacations. Famous pelicans include “Goose” the pelican in <i>Racing Stripes</i> .
2	Mourning Dove <i>Zenaida macroura</i>		Mourning Doves are plentiful along highways in the fall. They flush up from the shoulder of the road, perch on power lines, and zip across brushy fields. They are quite common around grassy fields and pastures before heading south for the winter.
3	Sandhill Crane <i>Grus canadensis</i>		Another bird that is easy to observe in the marshy fields around western Montana in the summer. In the fall, large flocks concentrate in the Blackfoot Valley, a sight to see and hear.
4	Cedar Waxwing <i>Bombycilla cedrorum</i>		Cedar Waxwings are common in the summer and fall – they can be found just about anywhere (especially eating the fruits of your garden) until fall. In the winter, Bohemian Waxwings are more common in the area (see below).
October			
1	Black-capped Chickadee		The Black-capped Chickadee is a great bird to start to get to know by sound. The call (<i>chick-a-dee-dee-dee</i>) can be heard most of the year, and the song, a melodic <i>heee-herrr</i> , also is easily recognizable in the summer months.
2	Great Horned Owl <i>Bubo virginianus</i>		Horned owls are nocturnal, but they roost in trees during the daytime. As the leaves start falling off the trees, these big birds become more obvious. They also sing their low <i>wooh wooh wawooh wooh</i> late into the evening.
3	Northern Flicker <i>Colaptes auratus</i>		Although the Northern Flicker is the bane of the clock tower on UM’s campus, it is quite an interesting woodpecker. Equally comfortable on the ground as on a tree trunk, flickers in this region have red underwings (in other regions, the underwings are more yellow or gold).
4	Snow Goose <i>Chen caerulescens</i>		Snow Geese are not common in western Montana, but they have a spectacular migration along the eastern front. Several hundred thousand concentrate on Freezout Lake (see http://fwp.mt.gov/education/video/reports/freezout_lake.html) during the fall and spring. Sometimes their flight path takes them over Missoula, their plaintive cries giving away their position as they pass late at night.

November			
1	Black-billed Magpie <i>Pica hudsonia</i>		Black-billed Magpies are more common near Mount Sentinel and in the rural areas than in the city, but they can be seen just about anywhere in western Montana. They are quite intelligent birds, often tricking dogs out of their food. Fall is a great time to see these large black and white birds.
2	Red-breasted Nuthatch <i>Sitta canadensis</i>		Nuthatches are another good fall bird. They are common at feeders in and around mixed woodlands and gardens. Their call, a <i>meep meep meep</i> , usually identifies their presence before the viewer spots them creeping along branches and trunks, often upside down.
3	Wild Turkey <i>Meleagris gallopavo</i>		Wild Turkeys are becoming increasingly common in the western ecoregion. During fall and spring, the males strut and court females, and they can be oblivious to onlookers. During courtship, the colors of the skin on the male's face intensify, adding to their unique appearance.
4	American Coot <i>Fulica americana</i>		Although coots are common here most of the year (they breed on Bancroft Pond), they are a great bird to see in the fall. Coots mix with large flocks of ducks, often stealing food from them. Large rafts (flocks) can be seen on the lakes and ponds in the Flathead Valley as well as Lee Metcalf NWR.
December			
1	Great Blue Heron <i>Ardea herodias</i>		Great Blue Herons are year-round residents. They breed in colonies; their large platform nests high atop cottonwood trees. Great Blue Herons can be seen wading in rivers, lakes, and ponds to snag whatever fish, frog, or insect may swim by. In flight, they fold their head back forming an obvious crook in their neck (as opposed to the straight neck of cranes).
2	Rough-legged Hawk <i>Buteo lagopus</i>		Rough-legged Hawks migrate to Montana in the winter (they breed in the arctic). Very high concentrations can be found in the Flathead Valley, but rough-legs can be seen in any open grassland with nearby perches. Males, females, and juveniles are easily recognizable.
3	Mallard <i>Anas platyrhynchos</i>		Mallards are year-round residents of many open water habitats (including mountain rivers). By December, the Mallards at Bancroft Pond have finished molting into their breeding plumage and started to form pairs. Courtship is fun to watch as a group of males tries to show off for an unattached female.

January			
1	American Crow <i>Corvus brachyrhynchos</i>		American Crows are residents of western Montana. They can be seen flying to roost in large flocks in the early evening (watch for birds flying in the same direction!) Extra credit: Common Raven (<i>Corvus corax</i>) – note the difference in the shape of their tails (crows are rounded, ravens are diamond-shaped).
2	Bohemian Waxwing <i>Bombycilla garrulus</i>		Bohemian Waxwings arrive in Montana around November. Large flocks can be seen gorging on the ripe red berries of hawthorn trees all winter long.
3	Northern Pygmy Owl <i>Glaucidium gnoma</i>		Northern Pygmy Owls are great bird predators. They often fly into large flocks of Bohemian Waxwings to kill the unwary. Although they are here year round, they are more frequent visitors to the valleys in the winter months.
4	Pileated Woodpecker <i>Dryocopus pileatus</i>		Pileated Woodpeckers are year-round residents of western Montana. They may be more easily observed in winter than other times of year, as they venture into more urban areas to forage.
February			
1	Canada Goose <i>Branta canadensis</i>		Canada Geese are common year round in Montana. They begin nesting about the end of February (depending on our weather). Canada Geese readily take over Osprey platforms, they nest in broken top snags, and they nest on the ground (usually on islands that serve to protect the site from predators).
2	American Robin <i>Turdus migratorius</i>		Although it seems like robins are here most of the year, they often move southward during the coldest months. Look for their return in February when we start to get more rains and the earthworms reappear.
3	Bald Eagle <i>Haliaeetus leucocephalus</i>		Our nation's symbol, Bald Eagles nest in Montana. Their numbers have been increasing since the ban on DDT. Bald Eagles can be found along all the major rivers in western Montana. They are easiest to spot before the leaves come out. Look for large bulbous nests in the forks of trees.
4	Red-tailed Hawk <i>Buteo jamaicensis</i>		Red-tailed Hawks have extremely diverse plumage, some very light colors, some completely dark. They are birds of mixed habitats breeding along the Clark Fork River and other areas where grasslands and tall trees intermingle. Watch for them as they build nests in early March.

March			
1	Western Meadowlark <i>Sturnella neglecta</i>		One of the first songbirds of spring, meadowlarks return to Montana so early they can be caught in spring snowstorms. Western Meadowlarks are the Montana state bird.
2	Song Sparrow <i>Melospiza melodia</i>		Another common songster in spring (in fact, many may live year round in Missoula), Song Sparrows can be found along ponds, rivers, streams, any wet areas (even backyards).
3	Red-winged Blackbird <i>Agelaius phoeniceus</i>		Loud, nearly permanent residents, Red-wings settle marshes first (they are later displaced by the larger and more aggressive Yellow-headed Blackbirds). They can flash their red wing patches (as when they are defending their territory) or hide them to be less conspicuous.
4	Killdeer <i>Charadrius vociferus</i>		Shorebirds with a loud <i>killdeer killdeer</i> call, a good guess would put these medium-sized birds nesting on or near every schoolyard in western Montana in relatively undisturbed gravelly flat areas like road rights-of-way. Killdeer are great performers luring potential predators (or young students) away with a broken wing act.
April			
1	House Finch <i>Carpodacus mexicanus</i>		A little year-round resident with a big song, House Finches nest in planters and landscape shrubbery (in fact, they will readily use hanging planters full of mosses and plants such as petunias). They begin nesting as early as April. Listen for their warbling song that often ends in a series of upward notes. These are common feeder birds, too.
2	Harlequin Duck <i>Histrionicus histrionicus</i>		Harlequin Ducks are a “species of special concern.” Populations are much lower than historical records, but they have seen an increase lately. Harlequin Ducks breed along fast moving streams, primarily in the Glacier Park area in Montana and winter along the coast.
3	Osprey <i>Pandion haliaetus</i>		Ospreys are often confused with Bald Eagles, but they are smaller and skinnier. Their nests are rather conspicuous, often on man-made platforms placed on top of telephone poles anywhere there are fish. Osprey dive into even the murkiest of waters to catch fish. Look for them returning to Montana in early April.
4	Mountain Bluebird <i>Sialia currucoides</i>		Mountain Bluebirds are a phenomenal shade of blue (at least the males are). They readily nest in boxes in open pastures and grasslands. Place boxes in pairs to prevent Tree Swallows from taking over all the nest boxes.

May		
1	Violet-green Swallow <i>Tachycineta thalassina</i>	 <p>Spring has arrived when Violet-green Swallows return. Their squeaky calls are easy to recognize as they zip around the old buildings of western Montana. Extra credit: Tree Swallow (<i>Tachycineta bicolor</i>) – Violet-green Swallows have a white cheek and rump patch and tend to be greener than Tree Swallows. Habitat can also help identify the two.</p> 
2	Yellow-headed Blackbird <i>Xanthocephalus xanthocephalus</i>	 <p>Yellow-headed Blackbirds are the raucous kids in the marsh. Their arrival is heralded by loud raspy calls and males chasing females through the cattails and bulrush. In the late summer, they can form huge flocks of several hundred birds.</p>
3	Yellow Warbler <i>Dendroica petechia</i>	 <p>A common songbird of the riparian areas throughout the state, Yellow Warblers are bright and cheerful songsters. They flit through the cottonwoods singing <i>sweet sweet I'm so sweet</i>.</p>
4	Cliff Swallow <i>Petrochelidon pyrrhonota</i>	 <p>Cliff Swallows are amazing nest builders – they build mud nests under bridges, the eaves of houses – anywhere near water. Their arrival is quite noticeable with swarms of birds establishing territories under bridges, the eaves of buildings, just about anywhere with a ledge near the Clark Fork and Bitterroot Rivers.</p>
June		
1	Lazuli Bunting <i>Passerina amoena</i>	 <p>Lazuli Buntings are bright little songsters that breed on Mount Sentinel. Their songs have been the focus of much study by Dr. Erick Greene from the University of Montana.</p>
2	Vaux's Swift <i>Chaetura vauxi</i>	 <p>Vaux's Swifts are the Chimney Swifts of the west breeding in the chimneys and old established trees around western Montana (Chimney Swifts are more common in eastern Montana). Their high pitched chatter is easily recognizable. Students should compare swifts with swallows.</p>
3	Eastern Kingbird <i>Tyrannus tyrannus</i>	 <p>Extra credit: Western Kingbird (<i>Tyrannus verticalis</i>). Both Eastern and Western Kingbirds are common grassland nesting birds. They can be observed on fencewires and telephone wires throughout western Montana. Their coloration is quite distinctive. Easterns, especially, can be quite aggressive.</p> 

*Note the capitalization of species' common names. The common names are official names recognized by the American Ornithologists' Union and are therefore treated as proper nouns.

Resources:

[ECOS Nature Guide: Birds](#) (coming this winter)

[Montana, Fish Wildlife & Parks Animal Field Guide: Birds](#) – This guide provides information on identification, habitat, ecology, reproduction, range, and distribution of Montana's birds and includes references, range maps, and photographs.

[Birds of North America by Wild Bird Centers: The Ultimate Backyard Nature Store](#) – although the bird guide is part of a commercial site, it has great artistic renditions of birds, general range (with maps) and habitat information, and great sound recordings. The site also allows beginning birders to narrow their search by color, wing shape, bill shape, and a host of other categorizations.

[All About Birds by Cornell Laboratory of Ornithology](#) – a great site that summarizes the most up-to-date research from the Birds of North America series. The site includes images, video, and sound recordings, as well as breeding and wintering distribution maps.

[Patuxent Bird Identification InfoCenter](#) – Basic identification and life history information, plus some recordings of vocalizations provided by the USGS Patuxent Wildlife Research Center. The site includes density maps for data collected during Breeding Bird Surveys and Christmas Bird Counts.

What do you think about this bird's overall body size and shape? (hint: the bird is actually 6 times larger than this silhouette)

What do you think about this bird's bill size and shape?

What kind of eater do you think it is?

You can't see them, but what do you think about this bird's leg size and shape?

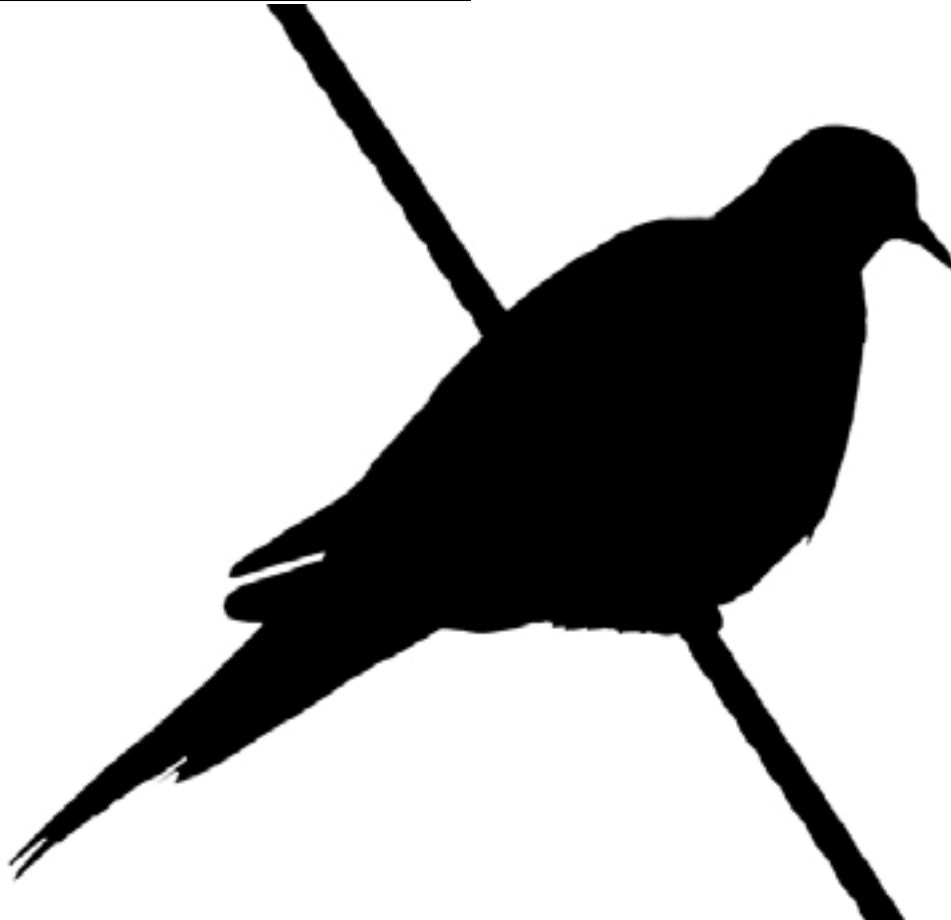


How does it move around?

Where might you find it?

What do you think about this bird's overall body size and shape?
(hint: the bird is actually 2 times larger than this silhouette)

What do you think about this bird's bill size and shape?



What kind of eater do you think it is?

You can't see them, but what do you think about this bird's leg size and shape?

How does it move around?

Where might you find it?

What do you think about this bird's overall body size and shape? (hint: the bird is actually 4 times larger than this silhouette)

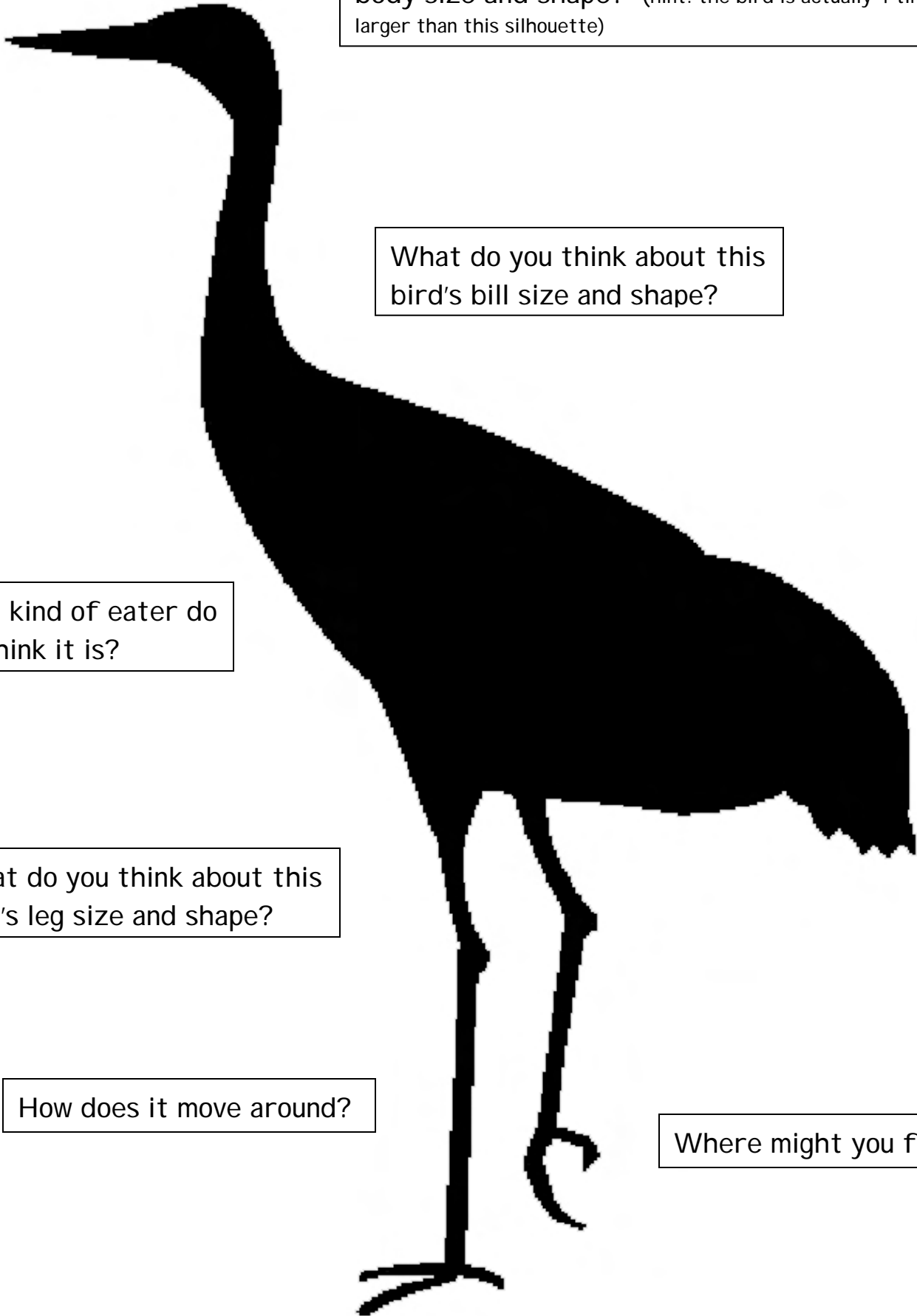
What do you think about this bird's bill size and shape?

What kind of eater do you think it is?

What do you think about this bird's leg size and shape?

How does it move around?

Where might you find it?



What do you think about this bird's overall body size and shape?



What do you think about this bird's bill size and shape?

What kind of eater do you think it is?
(hint: what's in it's feet?)

What do you think about this bird's leg size and shape?

How does it move around?

Where might you find it?

What do you think about this bird's overall body size and shape?

What do you think about this bird's bill size and shape?



What kind of eater do you think it is?

What do you think about this bird's leg size and shape?

How does it move around?

Where might you find it?

What do you think about this bird's overall body size and shape? (hint: the bird is actually 3 times larger than this silhouette)

What do you think about this bird's bill size and shape?

What kind of eater do you think it is?

What do you think about this bird's leg size and shape?

How does it move around?

Where might you find it?



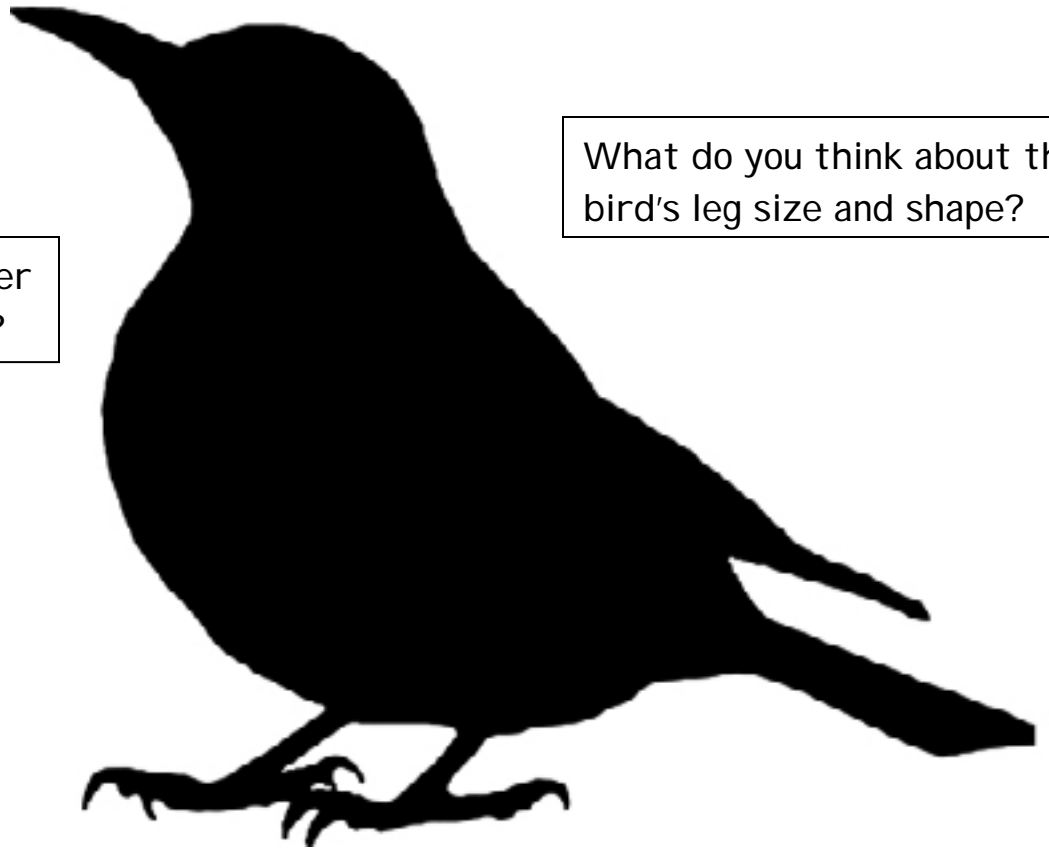
What do you think about this bird's overall body size and shape? (hint: the bird is actually 2 times larger than this silhouette)



What do you think about this bird's bill size and shape?

What kind of eater do you think it is?

What do you think about this bird's leg size and shape?



How does it move around?

Where might you find it?

What do you think about this bird's overall body size and shape? (hint: the bird is actually 3 times larger than this silhouette)

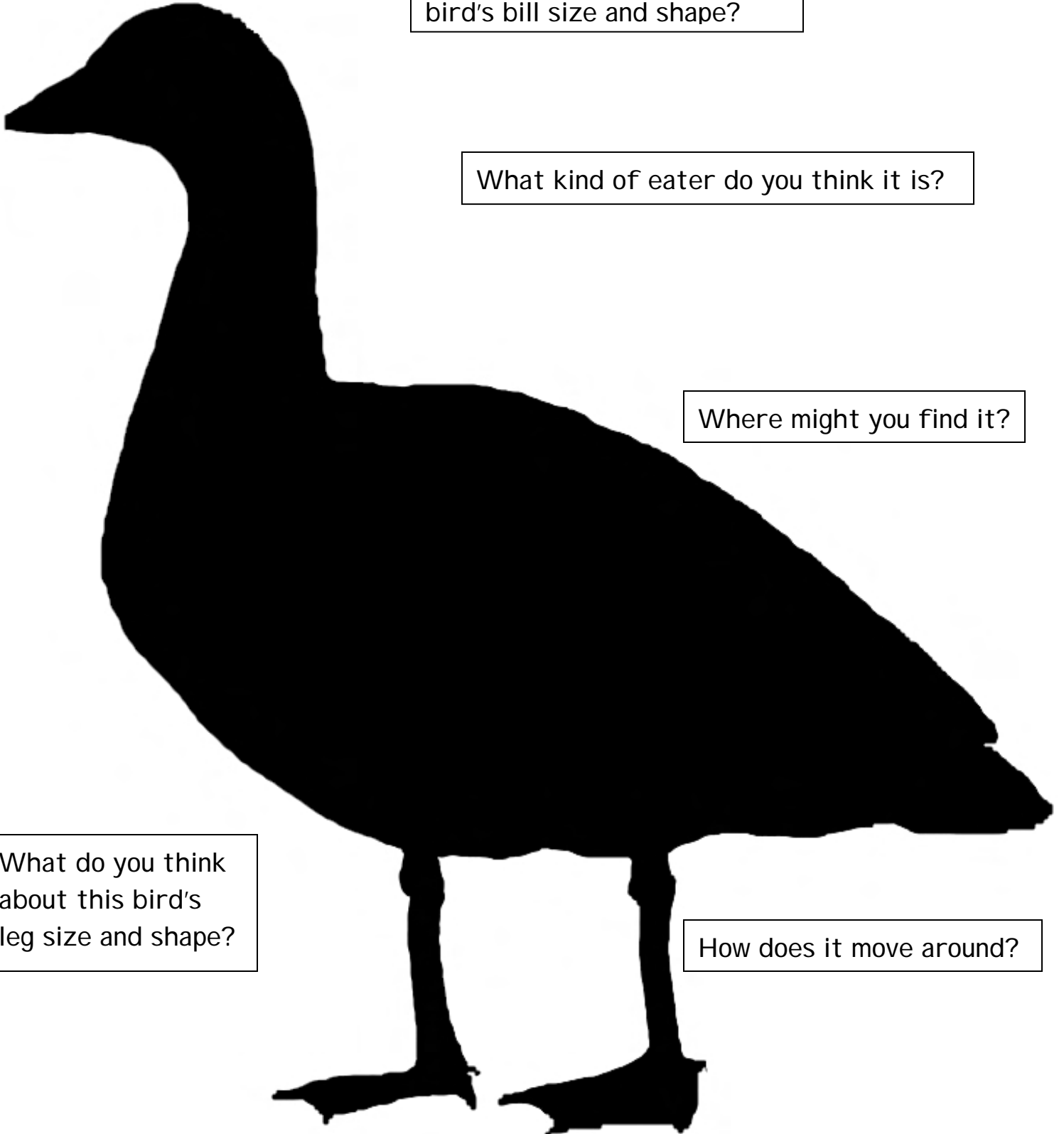
What do you think about this bird's bill size and shape?

What kind of eater do you think it is?

Where might you find it?

What do you think about this bird's leg size and shape?

How does it move around?



What do you think about this bird's overall body size and shape? (hint: the bird is actually 2 times larger than this silhouette)

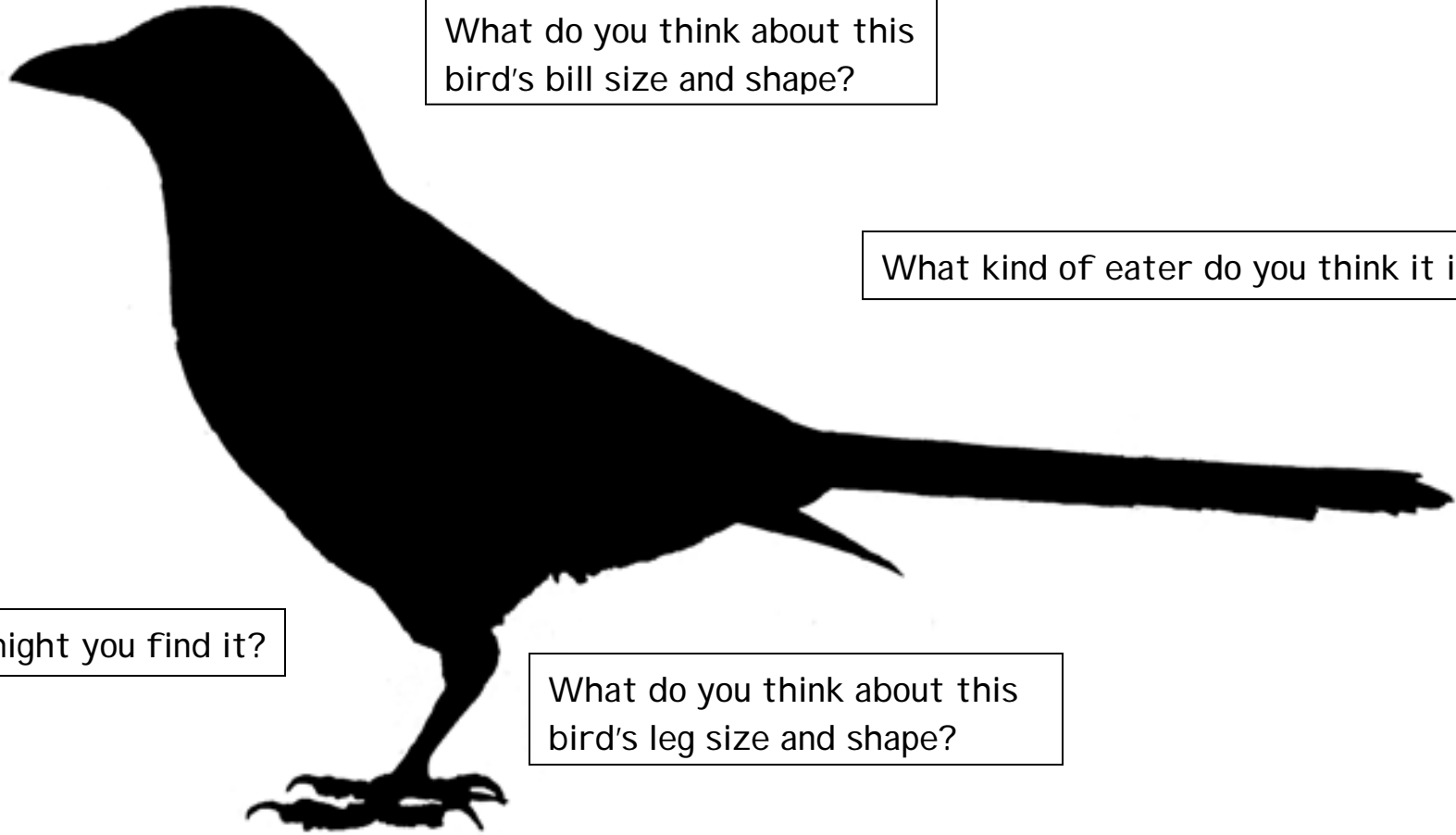
What do you think about this bird's bill size and shape?

What kind of eater do you think it is?

Where might you find it?

What do you think about this bird's leg size and shape?

How does it move around?



What do you think about this bird's overall body size and shape?

What do you think about this bird's bill size and shape?

What kind of eater do you think it is?



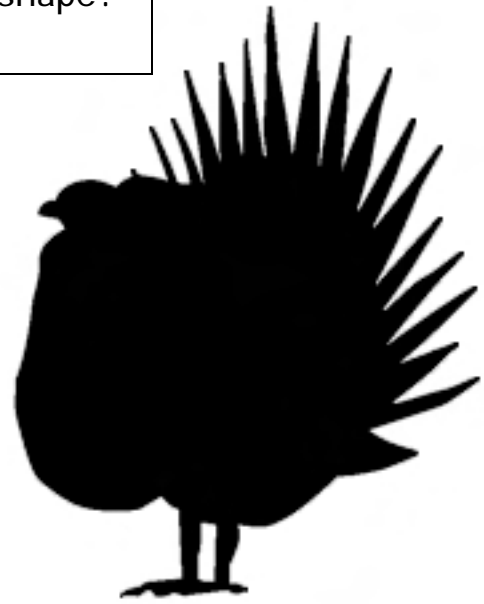
What do you think about this bird's leg size and shape?

How does it move around?

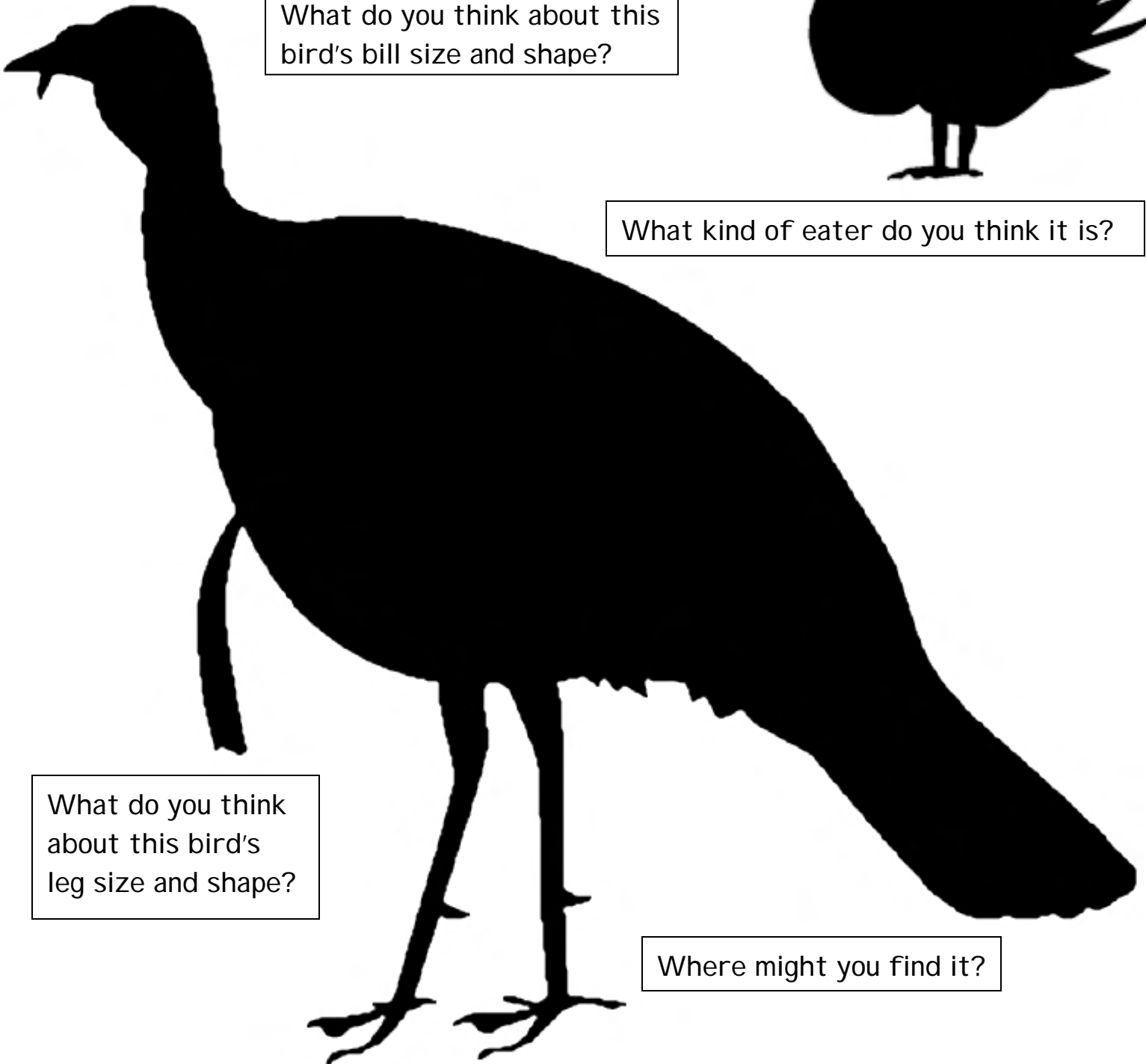
Where might you find it?

What do you think about this bird's overall body size and shape?

(hint: the bird is actually 8 times larger than this silhouette)



What do you think about this bird's bill size and shape?



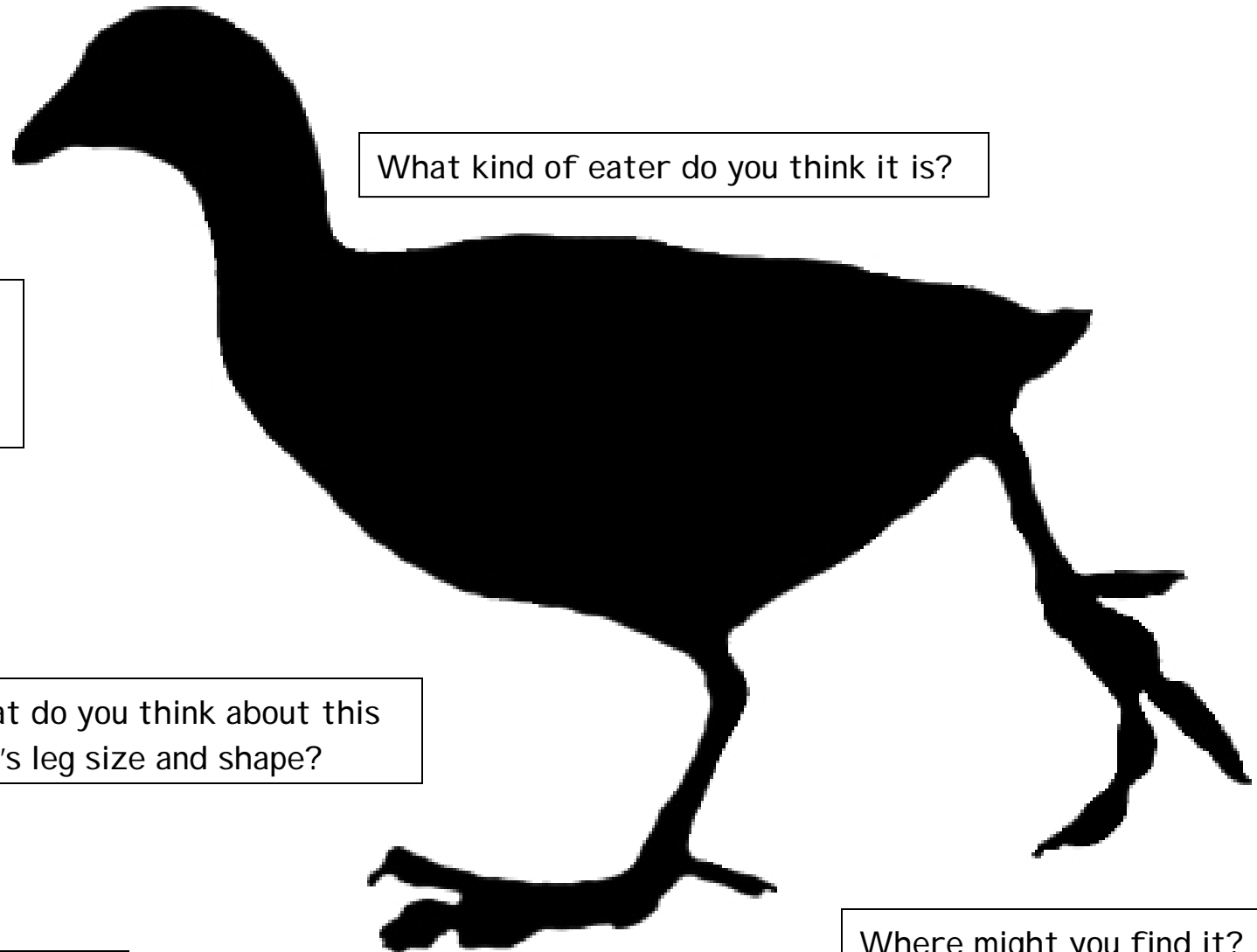
What kind of eater do you think it is?

What do you think about this bird's leg size and shape?

Where might you find it?

How does it move around?

What do you think about this bird's overall body size and shape? (hint: the bird is actually 2 times larger than this silhouette)



What kind of eater do you think it is?

What do you think about this bird's bill size and shape?

What do you think about this bird's leg size and shape?

How does it move around?

Where might you find it?

What do you think about this bird's overall body size and shape?

(hint: the bird is actually 4 times larger than this silhouette)

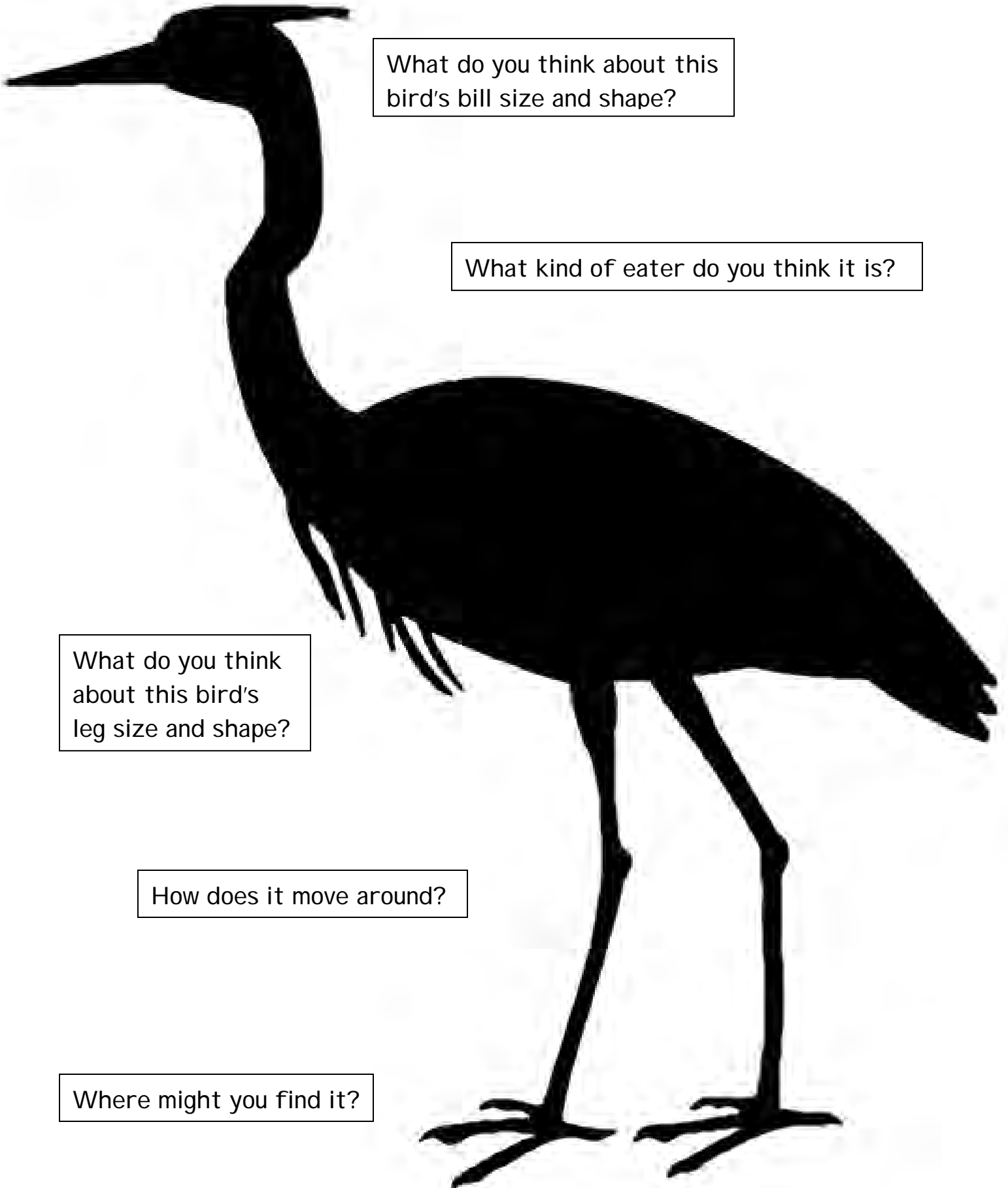
What do you think about this bird's bill size and shape?

What kind of eater do you think it is?

What do you think about this bird's leg size and shape?

How does it move around?

Where might you find it?



What do you think about this bird's overall body size and shape? (hint: the bird is actually 5 times larger than this silhouette)

What do you think about this bird's bill size and shape?

What kind of eater do you think it is?

What do you think about this bird's leg size and shape?

How does it move around?

Where might you find it?



What do you think about this bird's overall body size and shape? (hint: the bird is actually 3 times larger than this silhouette)

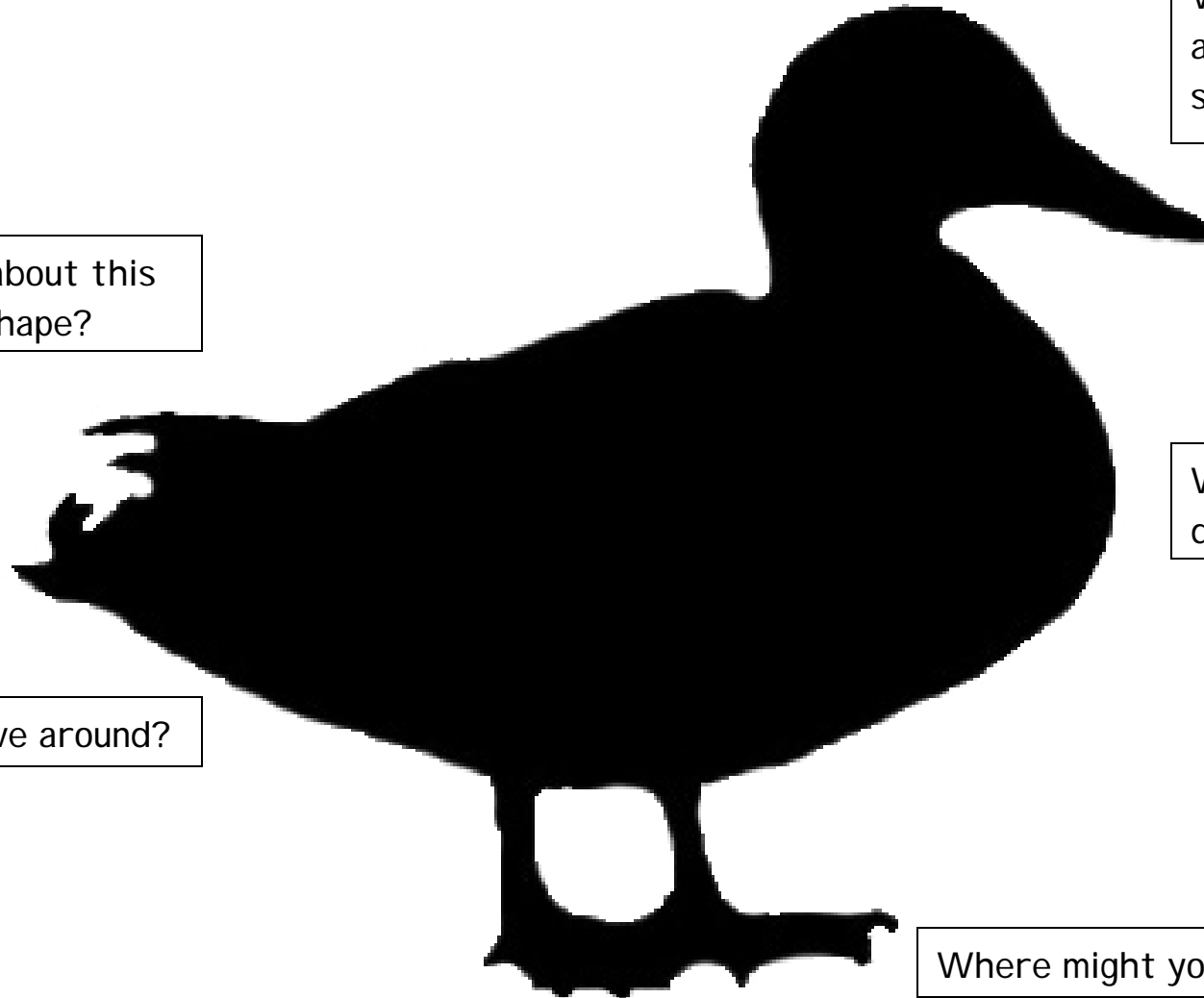
What do you think about this bird's bill size and shape?

What do you think about this bird's leg size and shape?

What kind of eater do you think it is?

How does it move around?

Where might you find it?

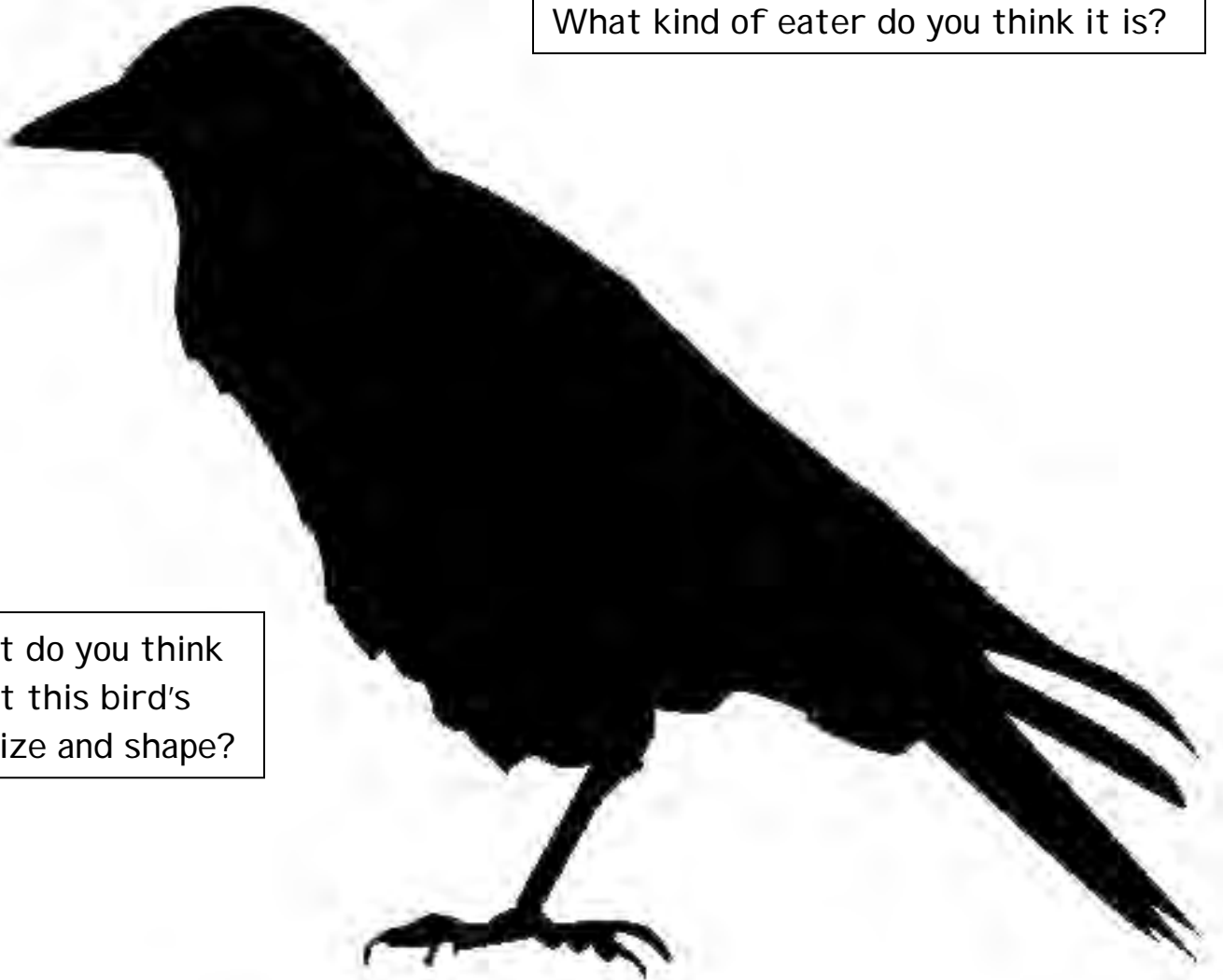


What do you think about this bird's overall body size and shape?

(hint: the bird is actually 2 times larger than this silhouette)

What do you think about this bird's bill size and shape?

What kind of eater do you think it is?



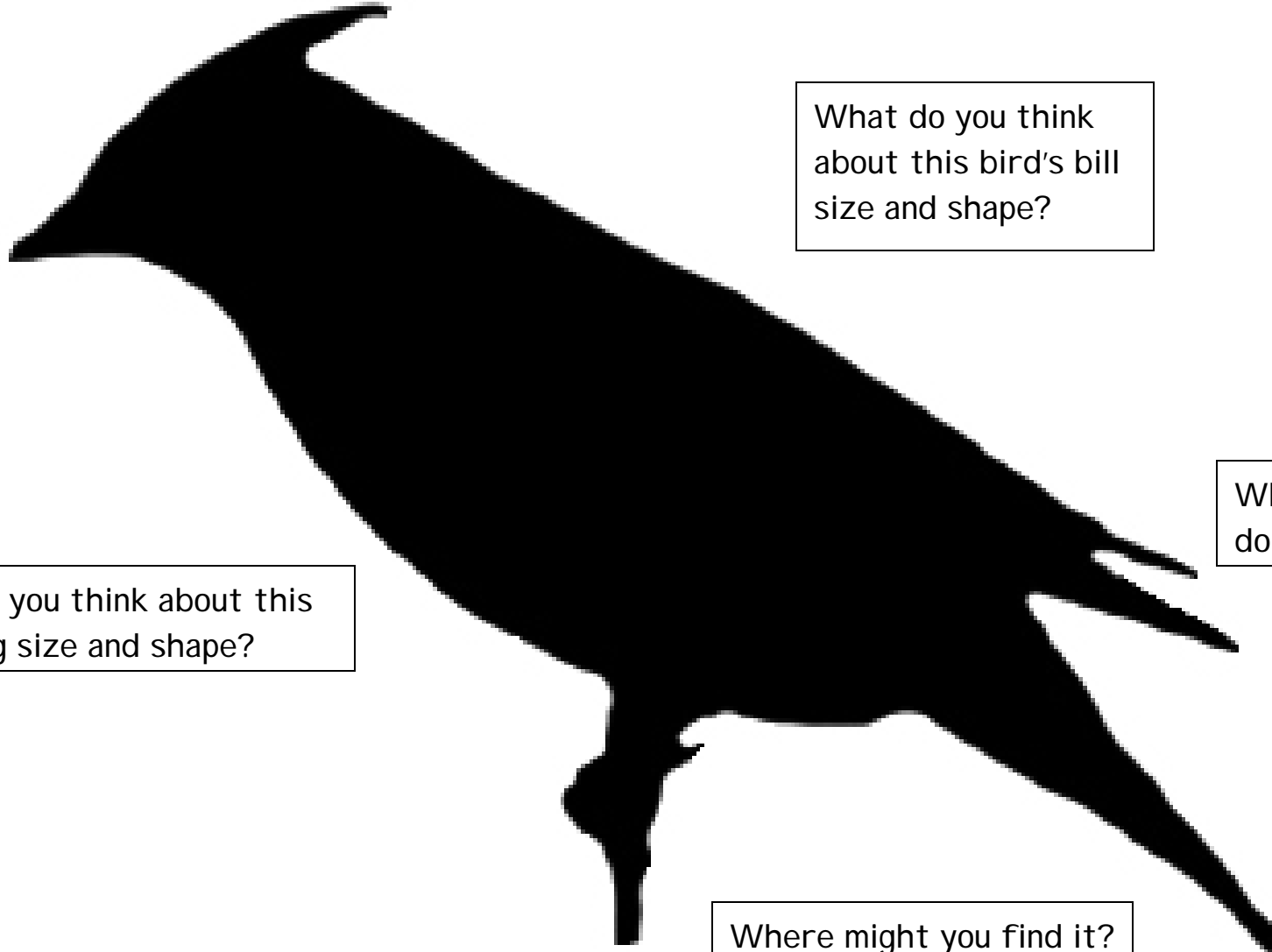
What do you think about this bird's leg size and shape?

How does it move around?



Where might you find it?

What do you think about this bird's overall body size and shape?



What do you think about this bird's bill size and shape?

What kind of eater do you think it is?

What do you think about this bird's leg size and shape?

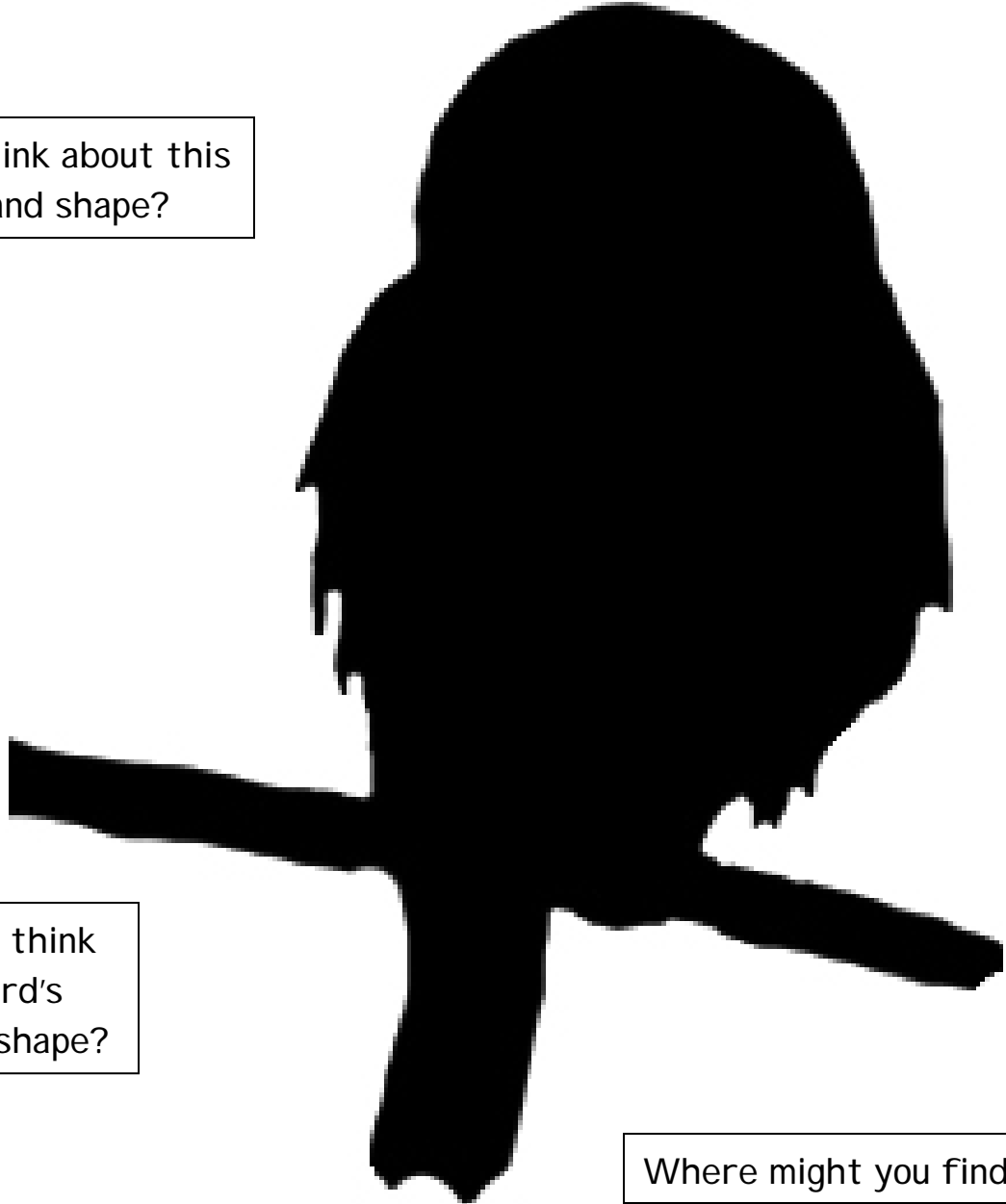
Where might you find it?

How does it move around?

What do you think about this bird's overall body size and shape?

What kind of eater do you think it is?

What do you think about this bird's bill size and shape?



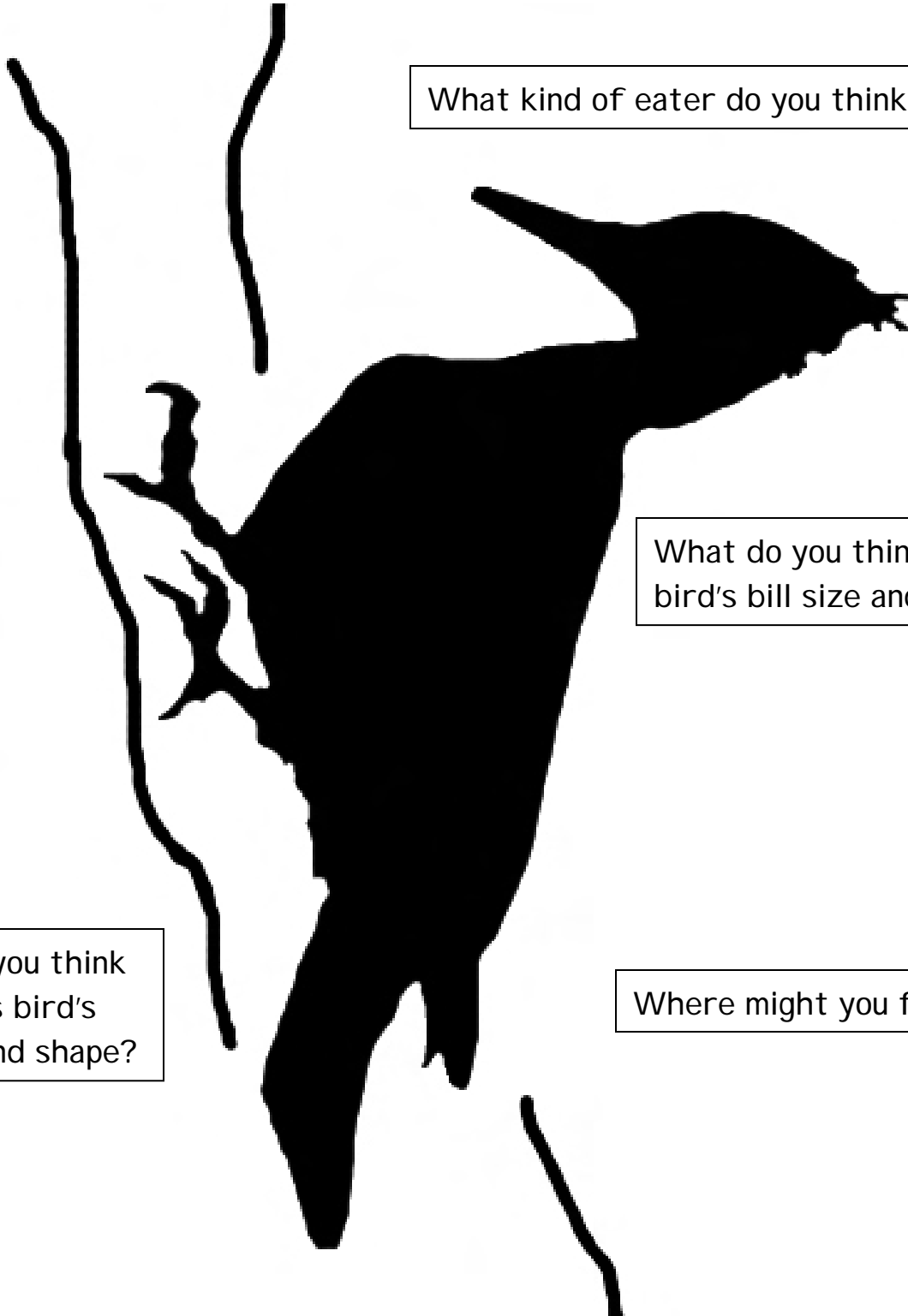
What do you think about this bird's leg size and shape?

Where might you find it?

How does it move around?

What do you think about this bird's overall body size and shape?

(hint: the bird is actually 2 times larger than this silhouette)



What kind of eater do you think it is?

What do you think about this bird's bill size and shape?

What do you think about this bird's leg size and shape?

Where might you find it?

How does it move around?

What do you think about this bird's overall body size and shape?

(hint: the bird is actually 4 times larger than this silhouette)

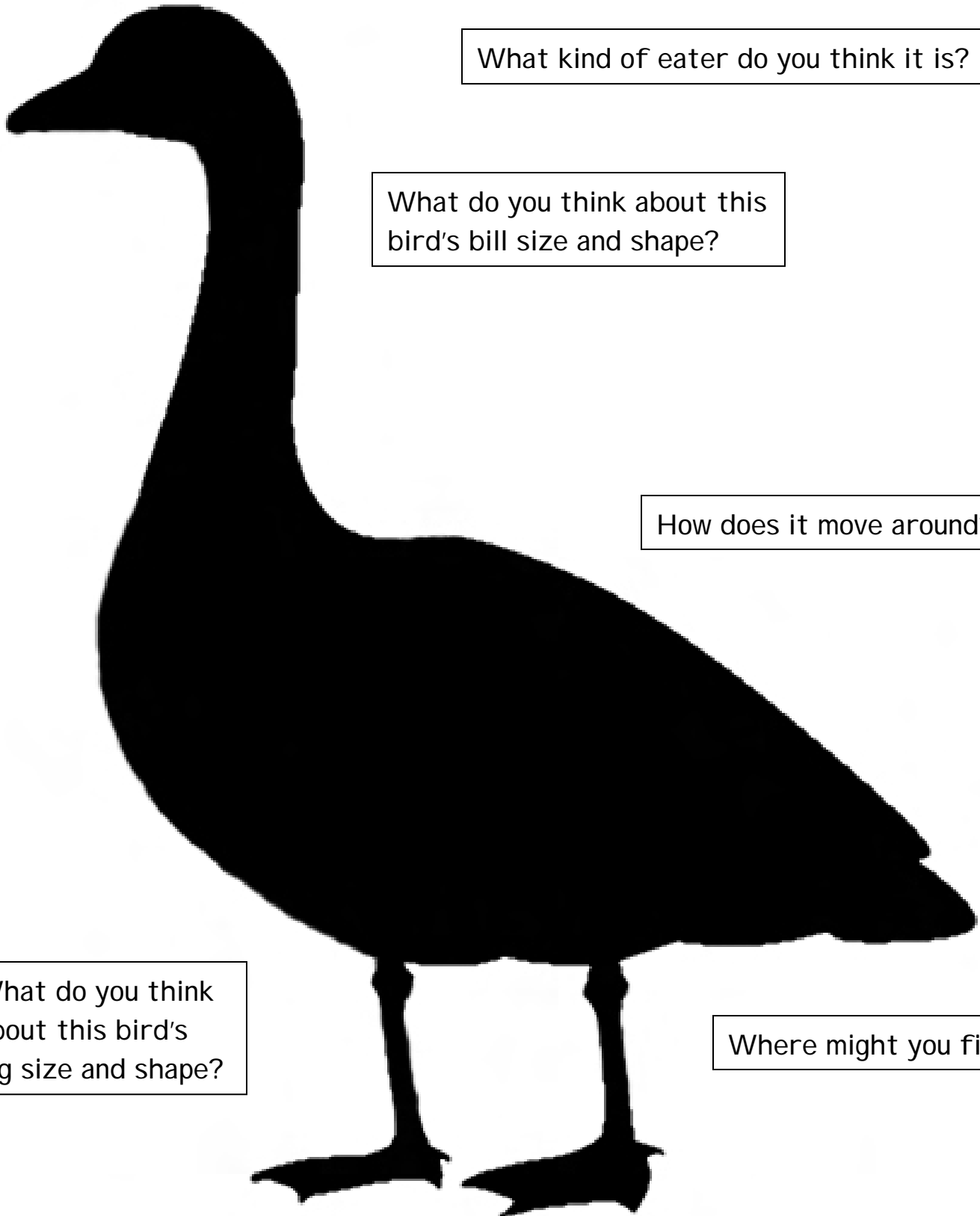
What kind of eater do you think it is?

What do you think about this bird's bill size and shape?

How does it move around?

What do you think about this bird's leg size and shape?

Where might you find it?



What do you think about this bird's overall body size and shape?

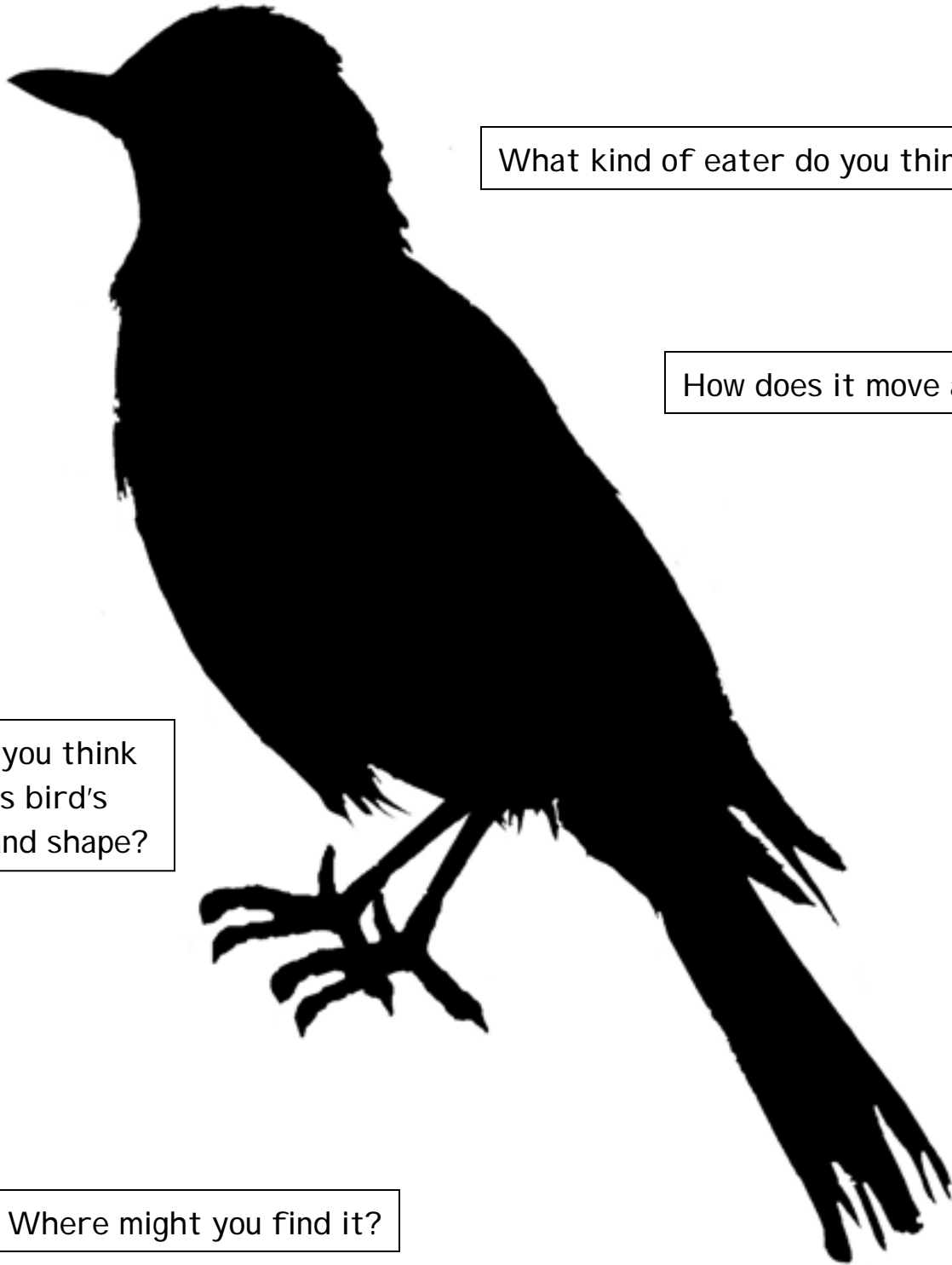
What do you think about this bird's bill size and shape?

What kind of eater do you think it is?

How does it move around?

What do you think about this bird's leg size and shape?

Where might you find it?



What do you think about this bird's overall body size and shape?

(hint: the bird is actually 7 times larger than this silhouette)

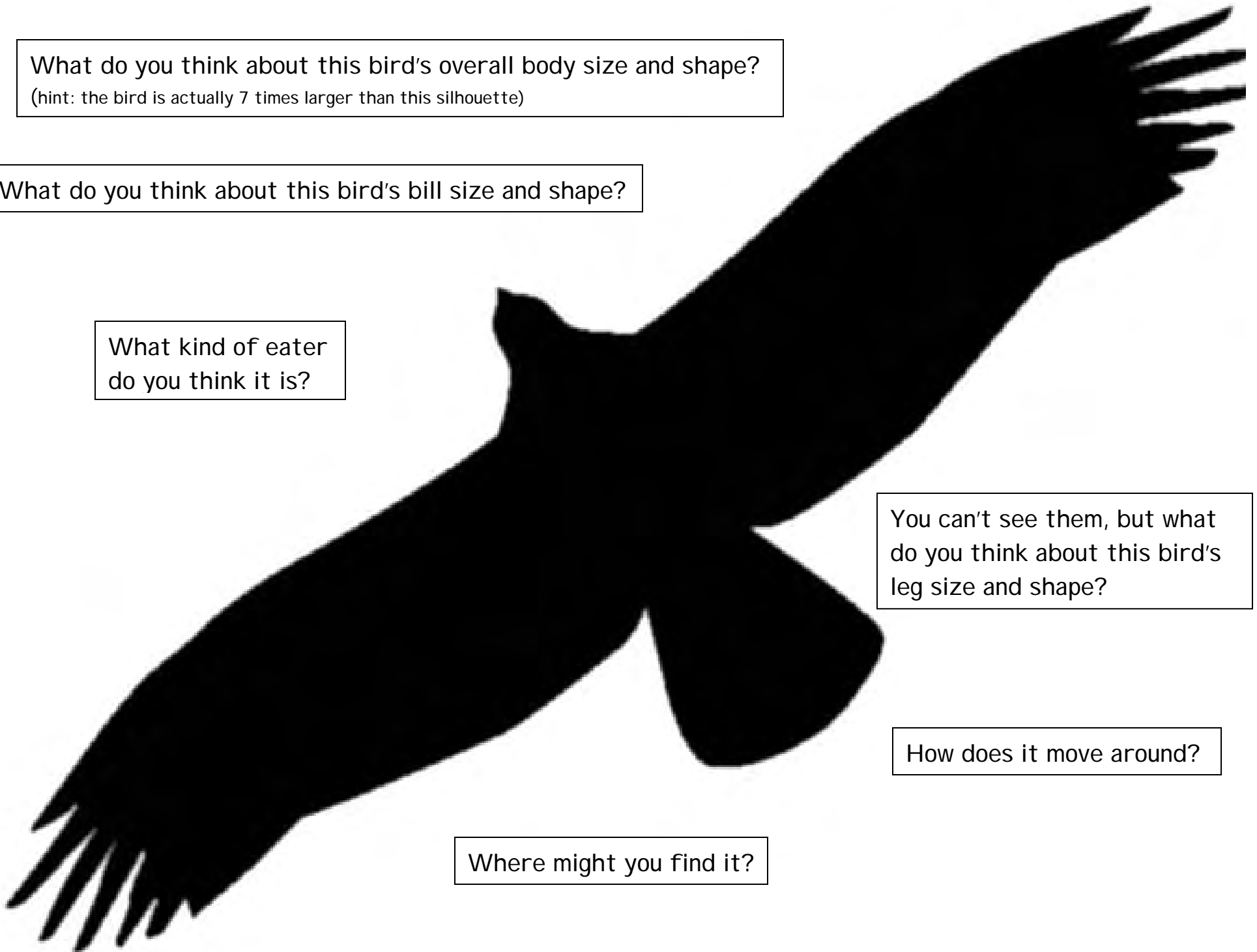
What do you think about this bird's bill size and shape?

What kind of eater
do you think it is?

You can't see them, but what
do you think about this bird's
leg size and shape?

How does it move around?

Where might you find it?



What do you think about this bird's overall body size and shape? (hint: the bird is actually 7 times larger than this silhouette)

How does it move around?

Where might you find it?



What kind of eater do you think it is?

What do you think about this bird's leg size and shape?

What do you think about this bird's bill size and shape?



What do you think about this bird's overall body size and shape?

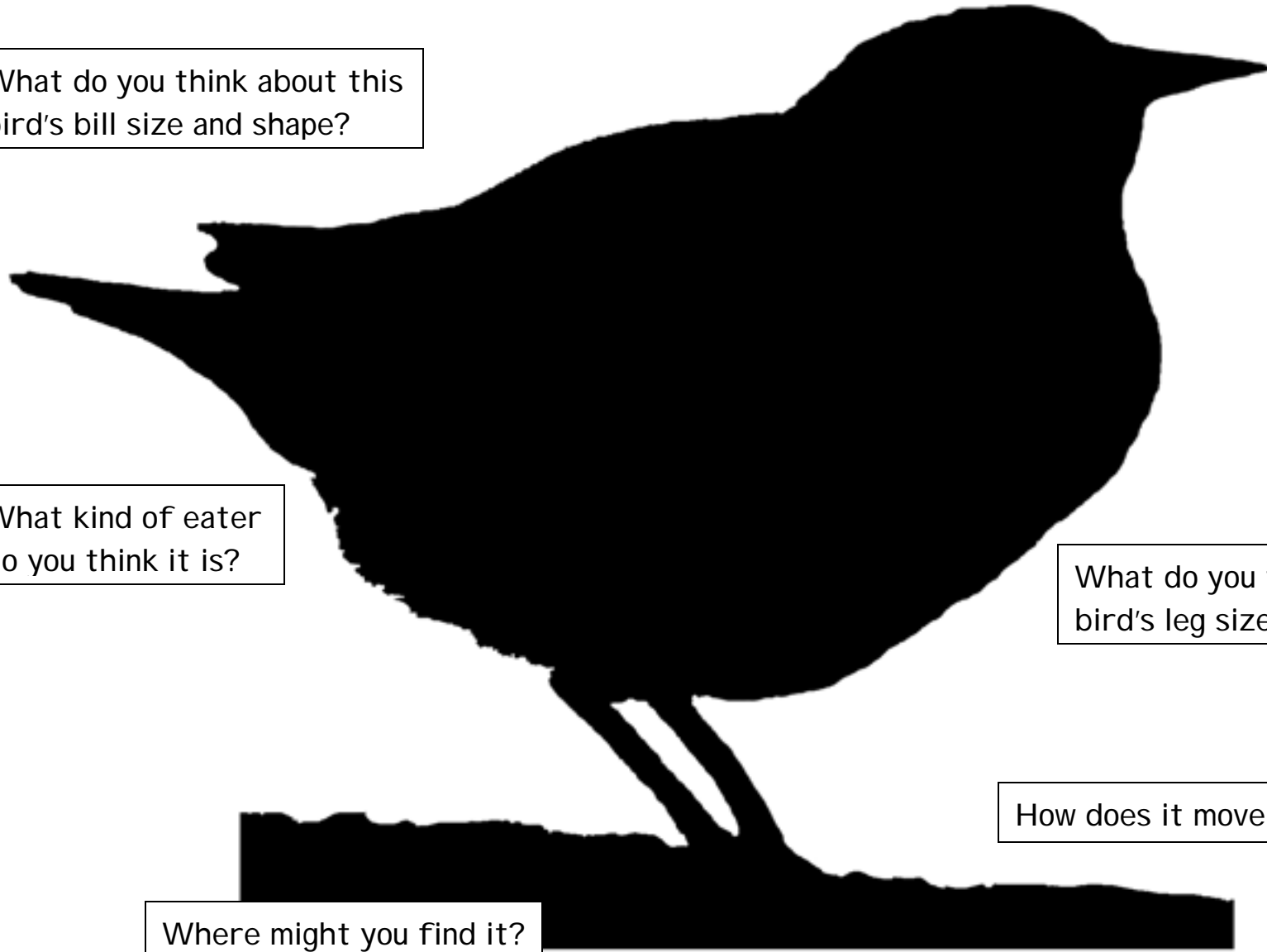
What do you think about this bird's bill size and shape?

What kind of eater do you think it is?

What do you think about this bird's leg size and shape?

How does it move around?

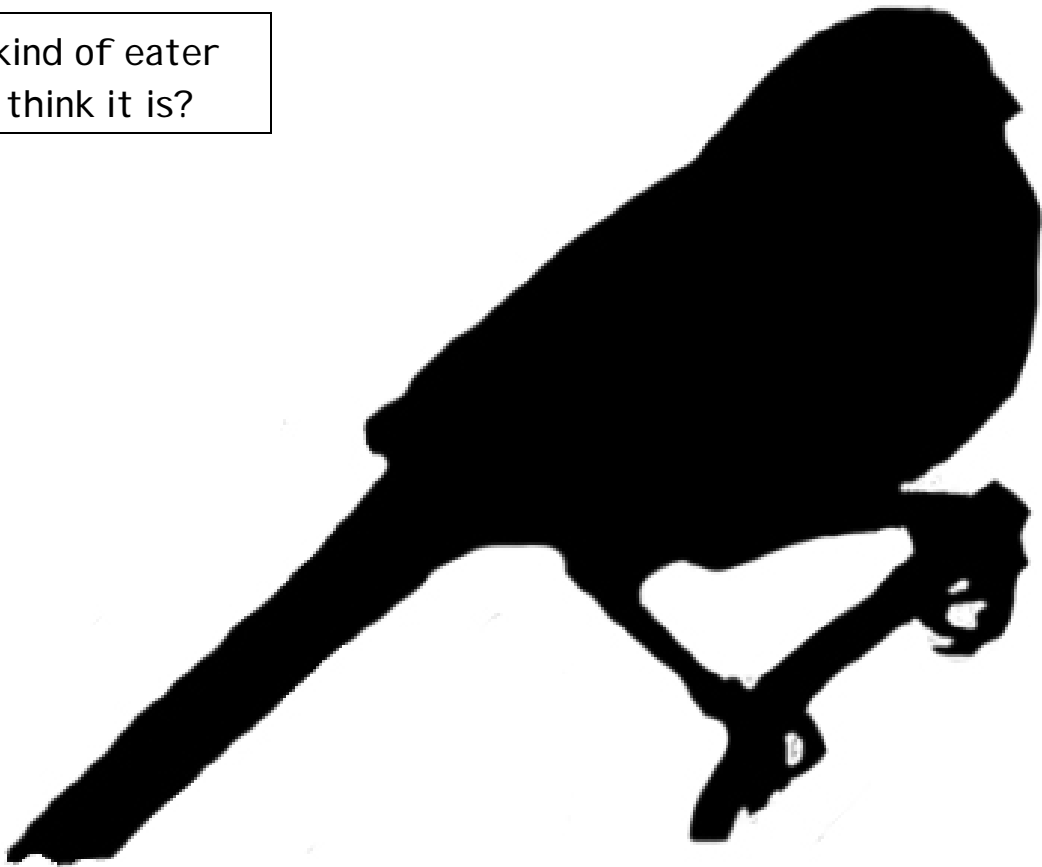
Where might you find it?



What do you think about this bird's overall body size and shape?

What do you think about this bird's bill size and shape?

What kind of eater do you think it is?



What do you think about this bird's leg size and shape?

How does it move around?

Where might you find it?

What do you think about this bird's overall body size and shape?

What do you think about this bird's bill size and shape?

What kind of eater do you think it is?



What do you think about this bird's leg size and shape?

How does it move around?

Where might you find it?

What do you think about this bird's overall body size and shape?

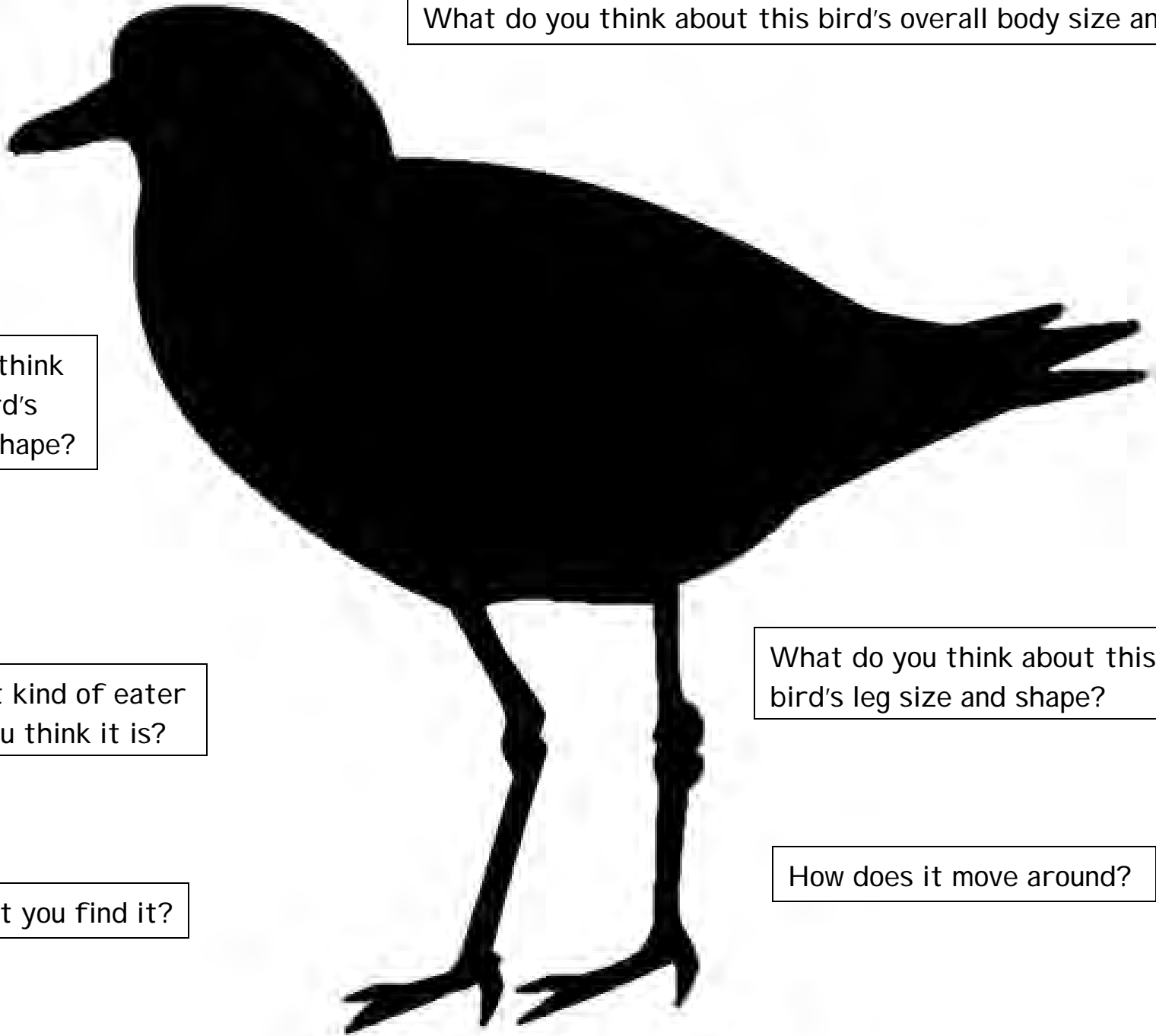
What do you think about this bird's bill size and shape?

What kind of eater do you think it is?

Where might you find it?

What do you think about this bird's leg size and shape?

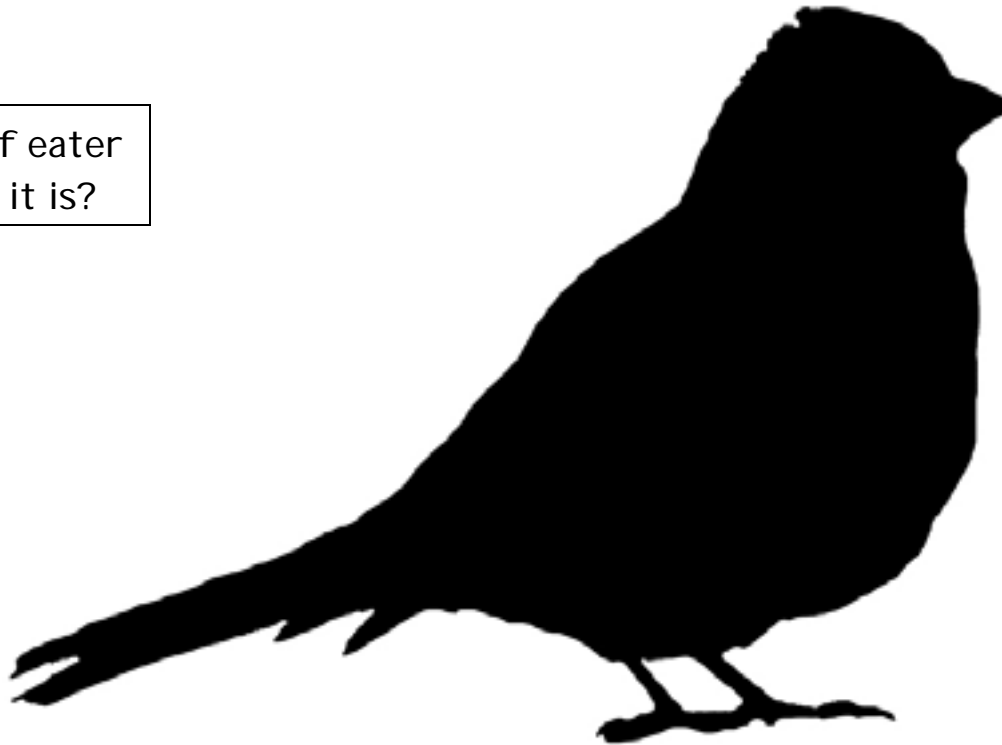
How does it move around?



What do you think about this bird's overall body size and shape?

What do you think about this bird's bill size and shape?

What kind of eater do you think it is?



What do you think about this bird's leg size and shape?

How does it move around?

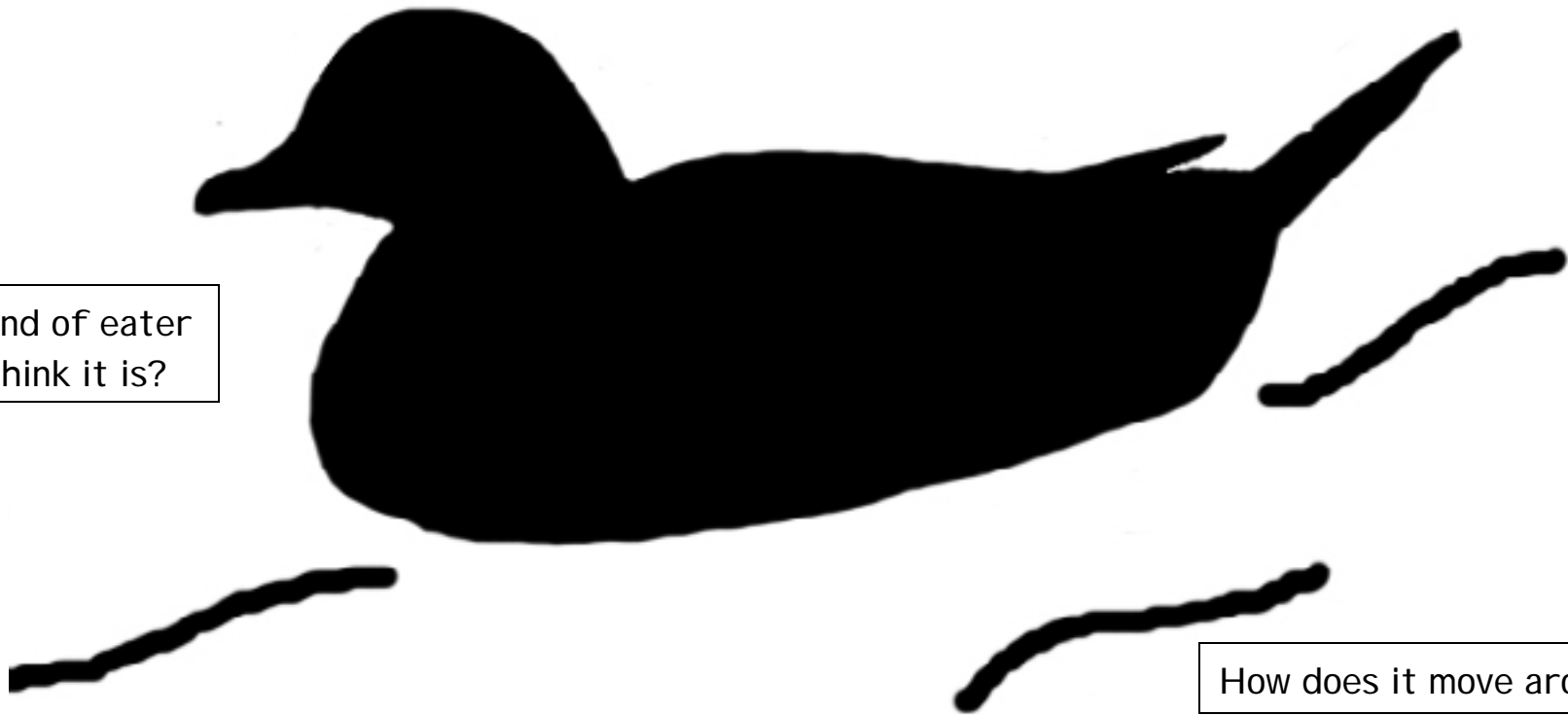
Where might you find it?

What do you think about this bird's overall body size and shape?

(hint: the bird is actually 2 times larger than this silhouette)

What do you think about this bird's bill size and shape?

What do you think about this bird's leg size and shape?



What kind of eater do you think it is?

How does it move around?

Where might you find it?



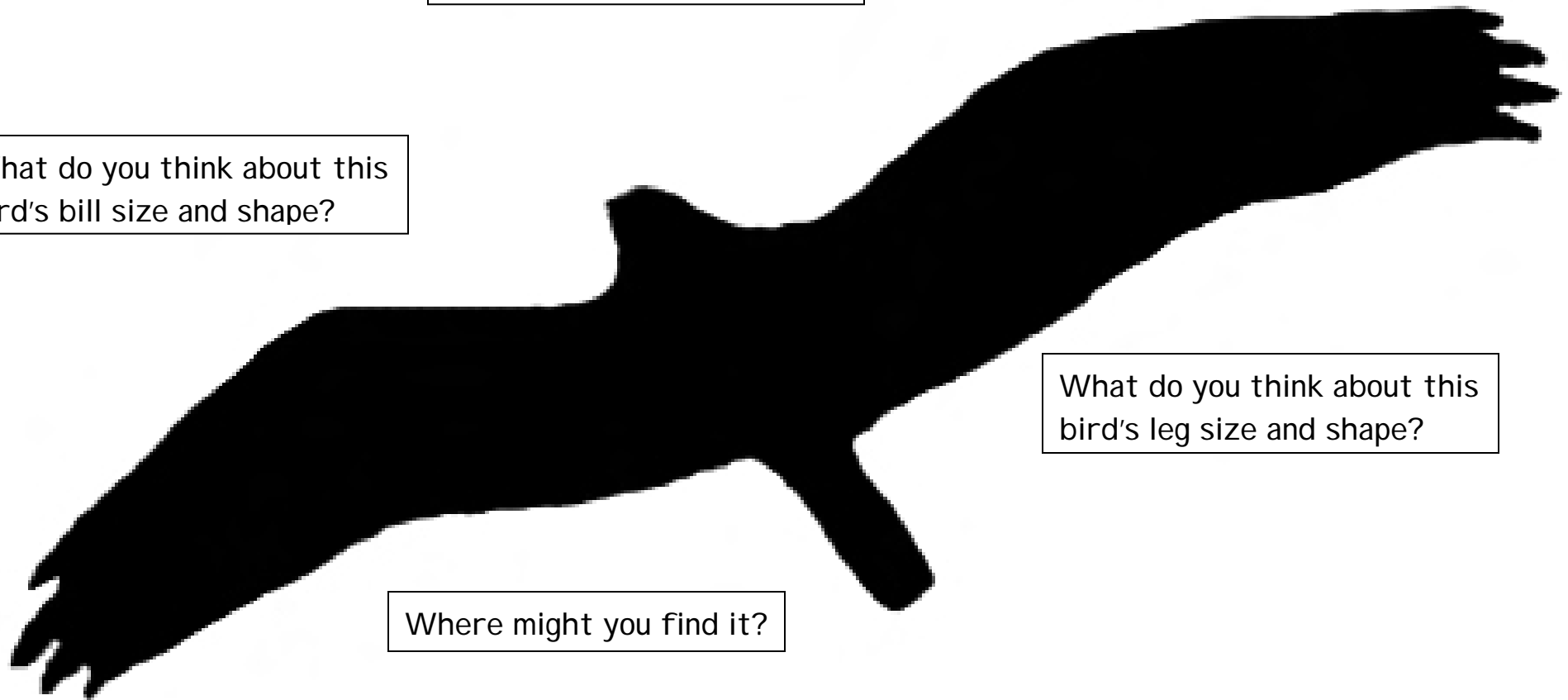
What do you think about this bird's overall body size and shape?
(hint: the bird is actually 7 times larger than this silhouette)

What kind of eater do you think it is? (hint: what's in its feet?)

How does it move around?

What do you think about this bird's bill size and shape?

What do you think about this bird's leg size and shape?



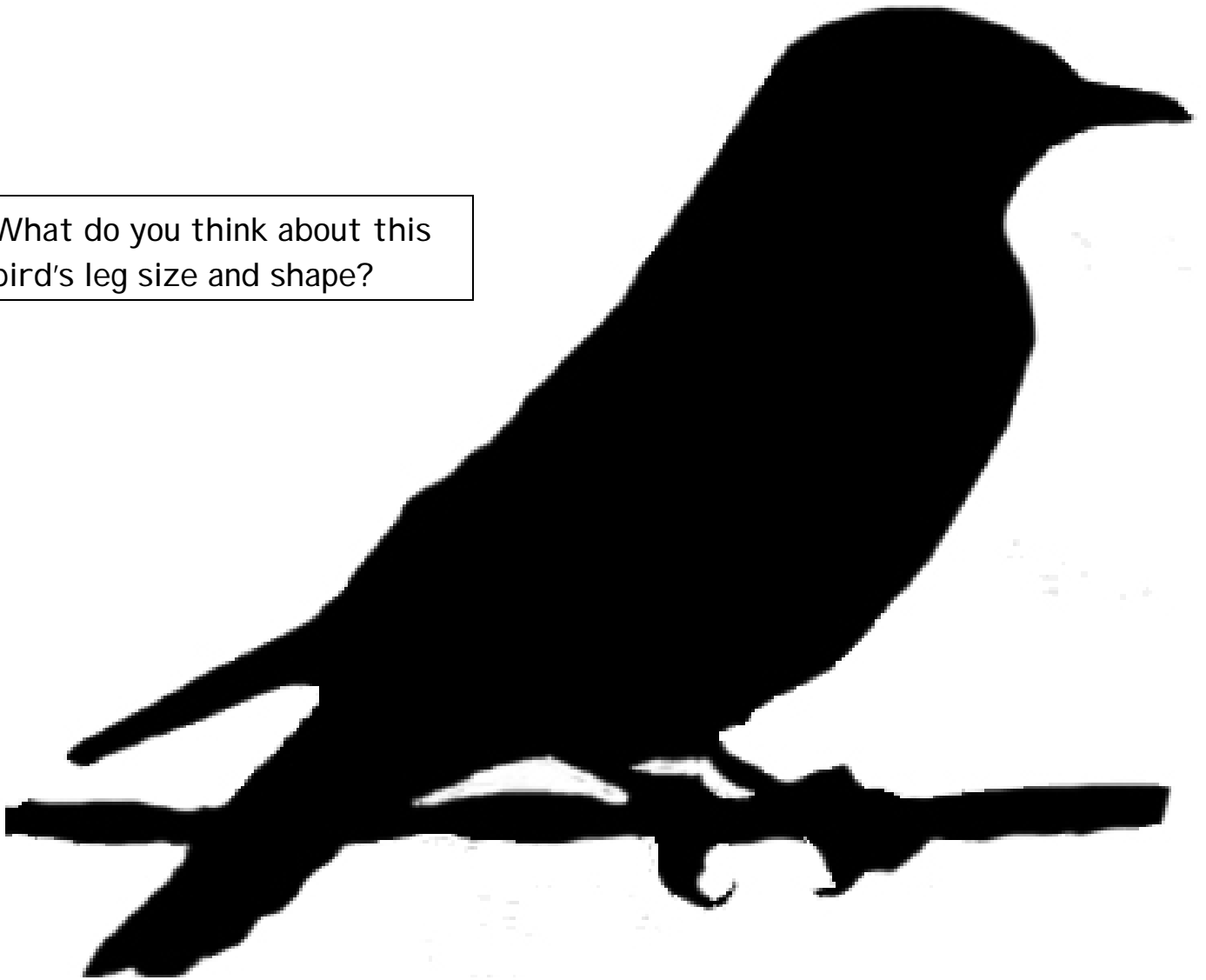
Where might you find it?

What do you think about this bird's overall body size and shape?

What do you think about this bird's bill size and shape?

What kind of eater do you think it is?

What do you think about this bird's leg size and shape?



How does it move around?

Where might you find it?

What do you think about this bird's overall body size and shape?

What do you think about this bird's bill size and shape?

What kind of eater do you think it is?

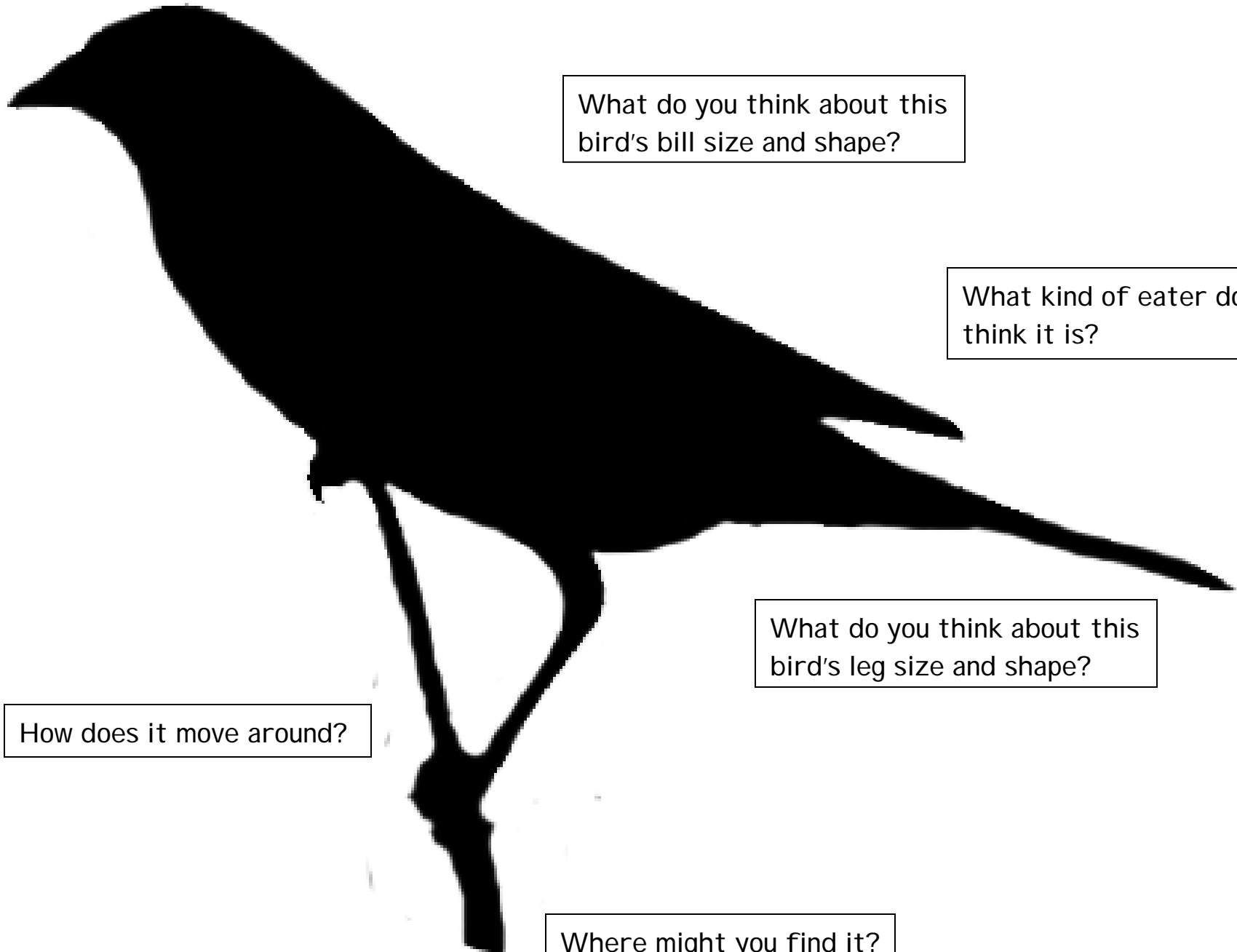
What do you think about this bird's leg size and shape?

How does it move around?

Where might you find it?



What do you think about this bird's overall body size and shape?



What do you think about this bird's bill size and shape?

What kind of eater do you think it is?

What do you think about this bird's leg size and shape?

How does it move around?

Where might you find it?

What do you think about this bird's overall body size and shape?

What do you think about this bird's bill size and shape?

What kind of eater do you think it is?



What do you think about this bird's leg size and shape?

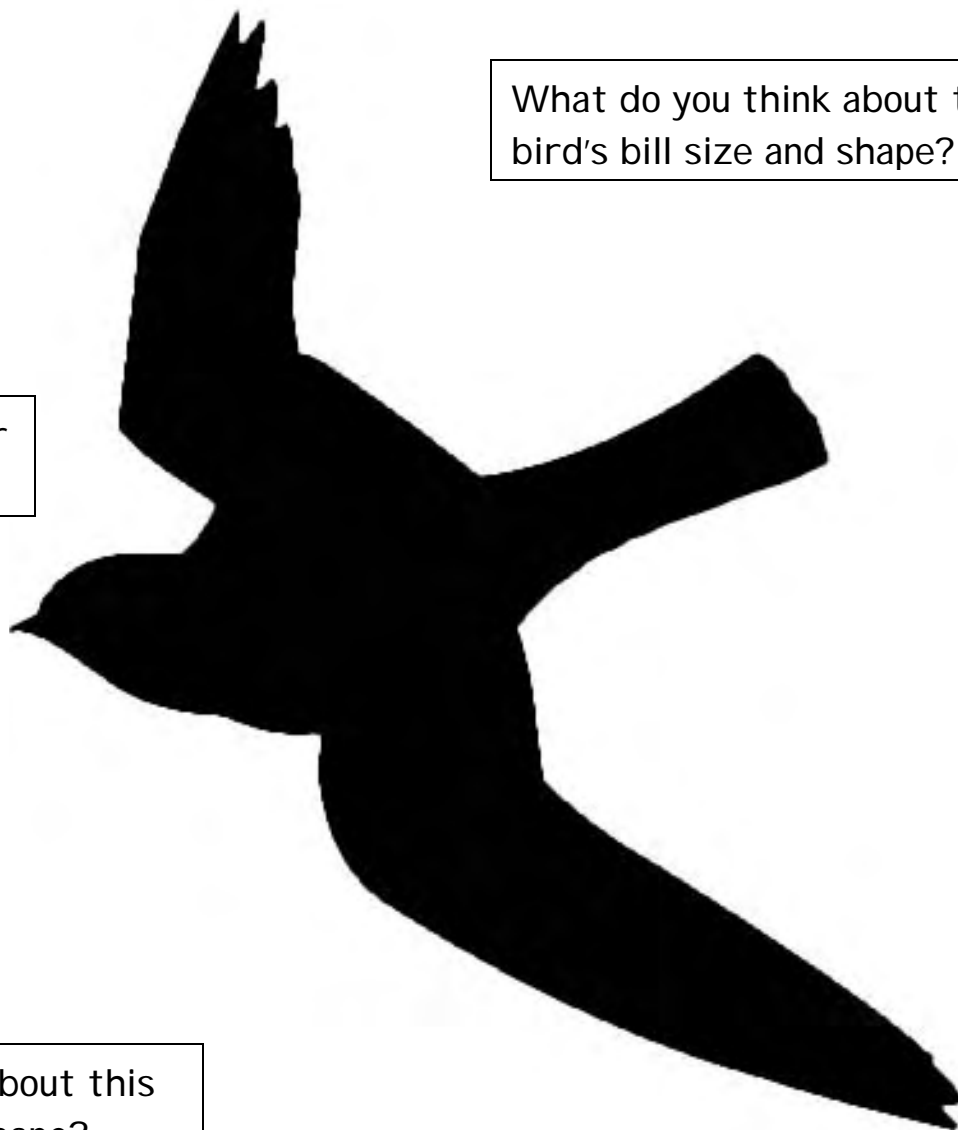
Where might you find it?

How does it move around?

What do you think about this bird's overall body size and shape?

What do you think about this bird's bill size and shape?

What kind of eater do you think it is?



What do you think about this bird's leg size and shape?

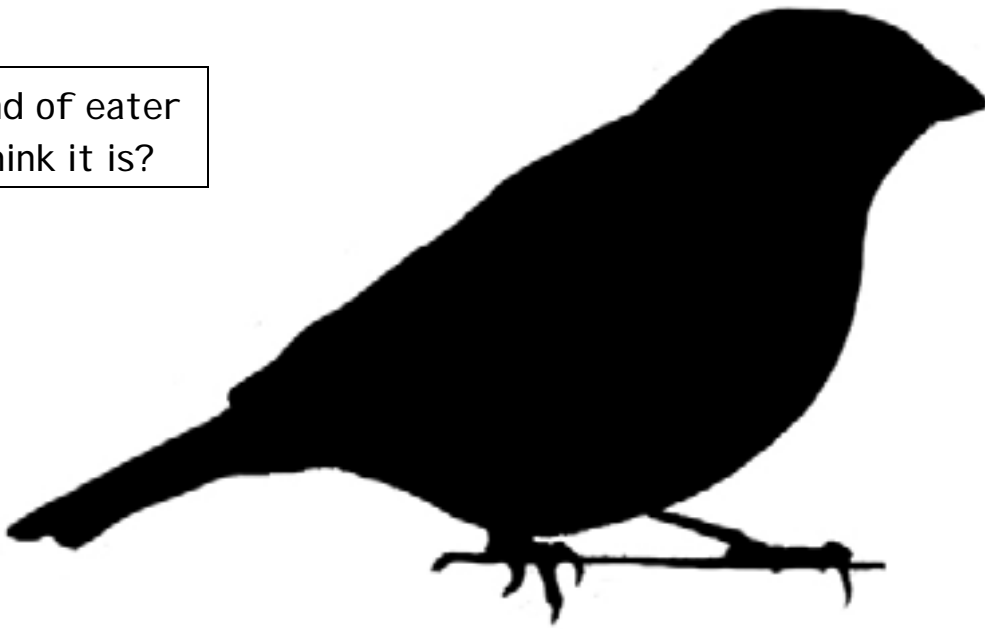
Where might you find it?

How does it move around?

What do you think about this bird's overall body size and shape?

What do you think about this bird's bill size and shape?

What kind of eater do you think it is?



What do you think about this bird's leg size and shape?

Where might you find it?

How does it move around?

What do you think about this bird's overall body size and shape?

What do you think about this bird's bill size and shape?

What kind of eater do you think it is?



What do you think about this bird's leg size and shape?

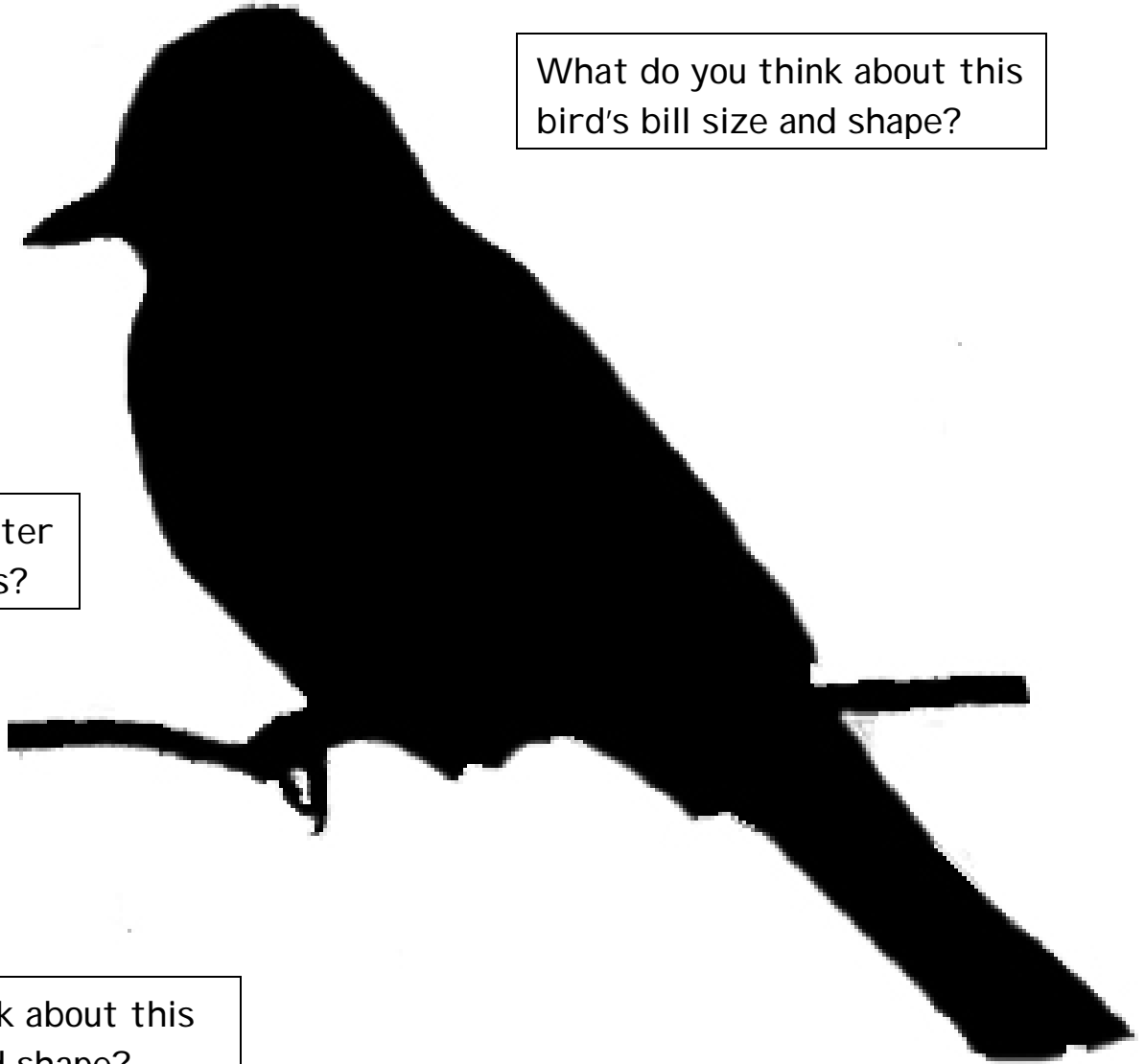
How does it move around?

Where might you find it?

What do you think about this bird's overall body size and shape?

What do you think about this bird's bill size and shape?

What kind of eater do you think it is?



What do you think about this bird's leg size and shape?

How does it move around?

Where might you find it?

EXTRA CREDIT

What do you think about this bird's overall body size and shape?

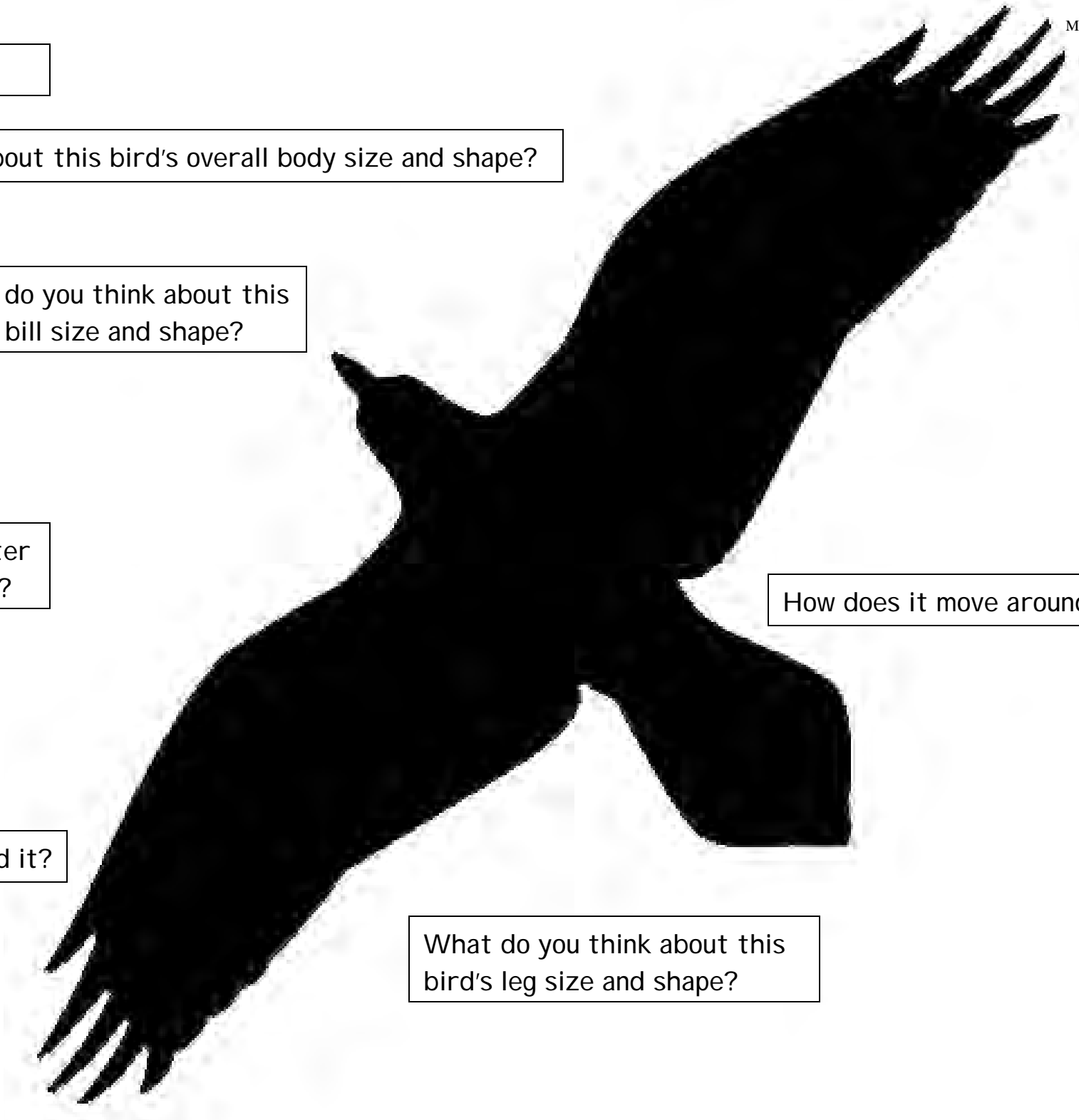
What do you think about this bird's bill size and shape?

What kind of eater do you think it is?

How does it move around?

Where might you find it?

What do you think about this bird's leg size and shape?



EXTRA CREDIT

What do you think about this bird's overall body size and shape?

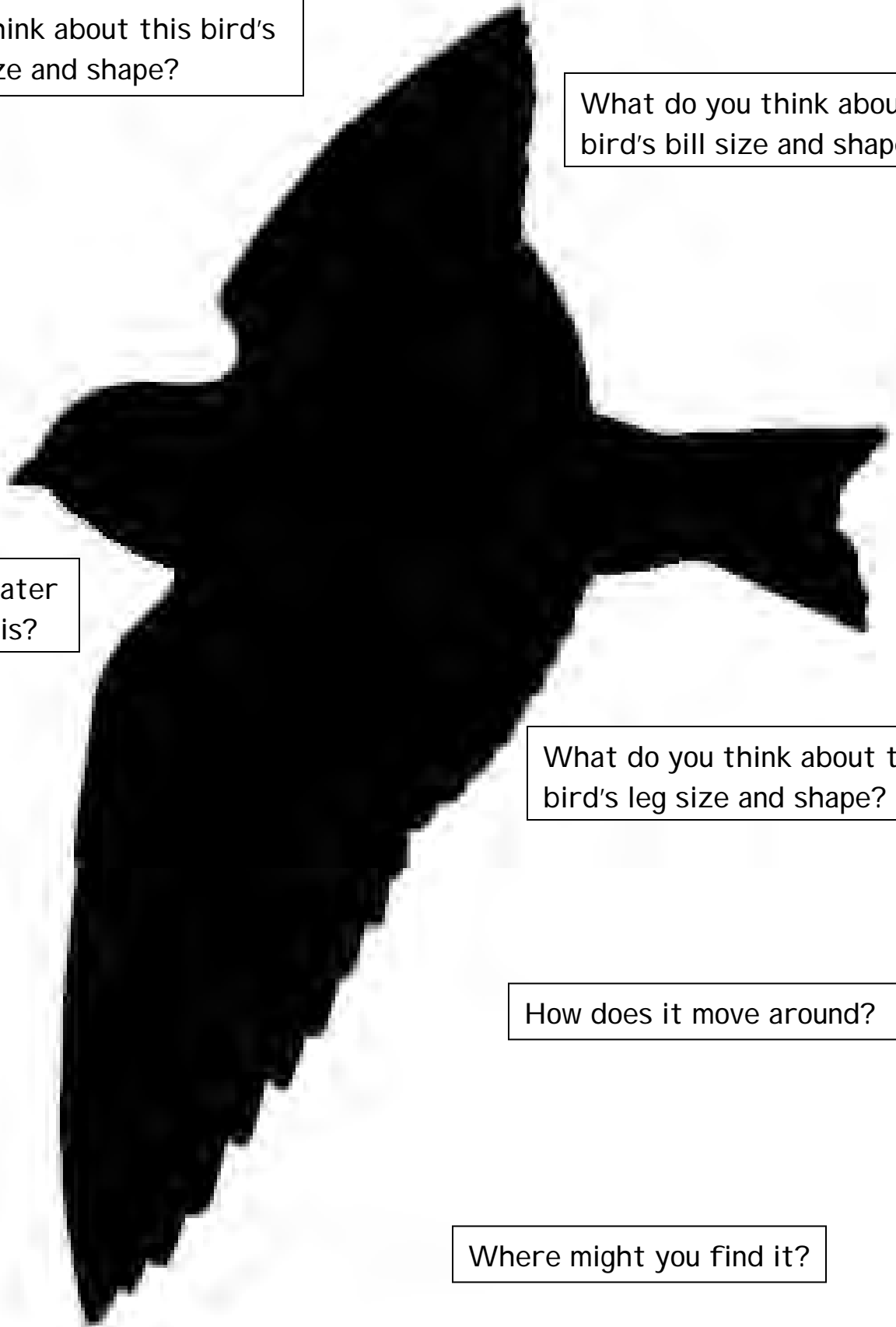
What do you think about this bird's bill size and shape?

What kind of eater do you think it is?

What do you think about this bird's leg size and shape?

How does it move around?

Where might you find it?



EXTRA CREDIT

What do you think about this bird's overall body size and shape?

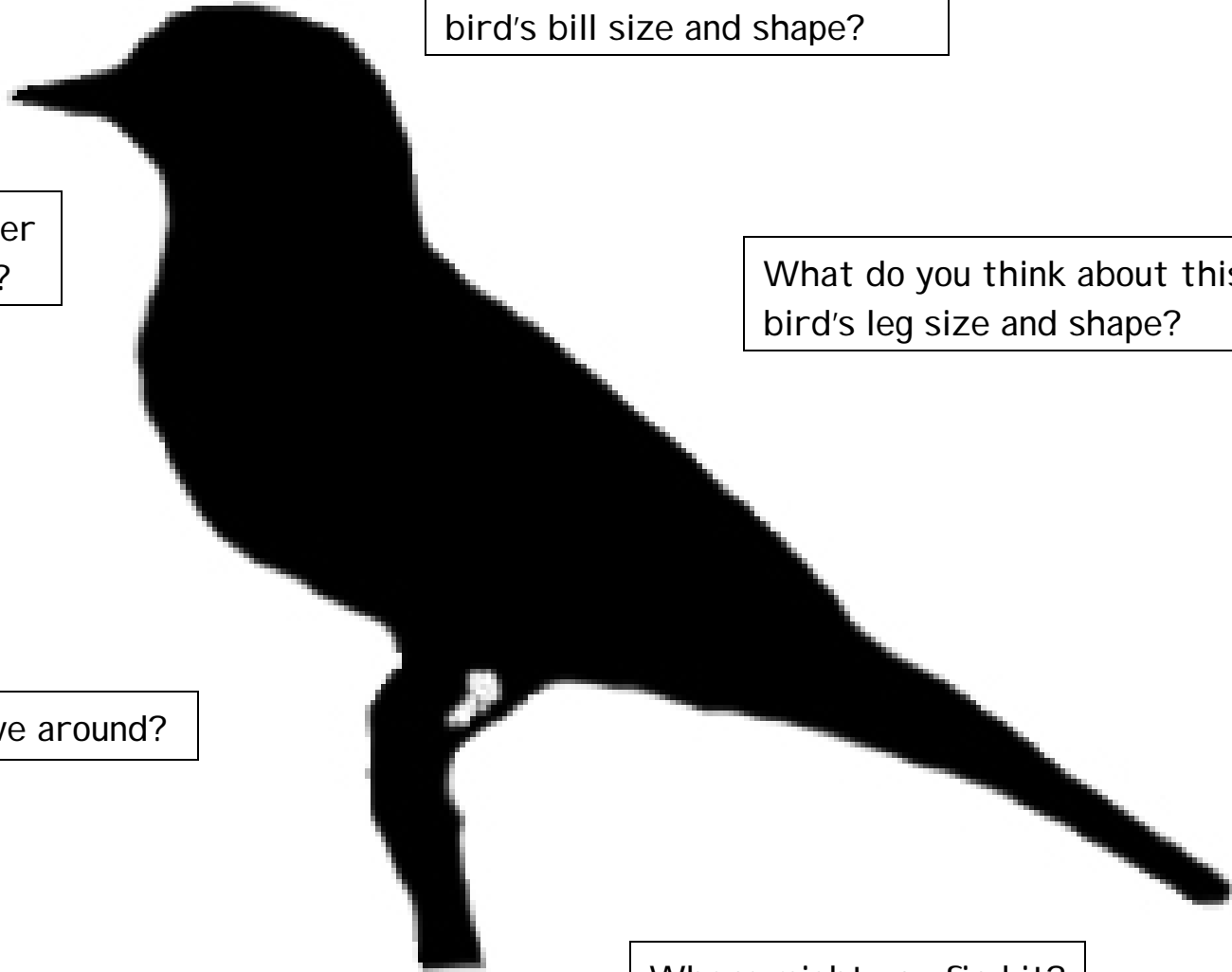
What do you think about this bird's bill size and shape?

What kind of eater do you think it is?

What do you think about this bird's leg size and shape?

How does it move around?

Where might you find it?



BIRD-OF-THE-WEEK WORKSHEET:

Student Name:

Common Name:

Scientific Name:

What kind of eater is it?

In what kind of habitat(s) can it be found?

What is its range (where in North America can it be found)?

What about in Montana?

What time of year can it be found here?

BIRD-OF-THE-WEEK WORKSHEET:

Student Name:

Common Name:

Scientific Name:

What kind of eater is it?

In what kind of habitat(s) can it be found?

What is its range (where in North America can it be found)?

What about in Montana?

What time of year can it be found here?

SORTING CARDS

