

## Bird Activity

### Possible Scenario

1. Ask students to close eyes and think of themselves as a bird. “What would you look like?” “Are you a small bird or a big bird? Do you have long-tail feathers or tiny feathers?” Ask them “What would your beak look like?” “What about your feet? Do they have pedals? What color is on it?”
2. Get them to open their eyes and draw their birds that they have imagined.
3. Share one of the characteristics of their birds (e.g., beaks, feet, wings). “What would your beak look like?” Ask them to draw their beaks on a transparency.
4. Explain that they are looking at the form of beaks and ask them to think about functions of these beaks on the transparency. “What do you think a bird could eat with a beak like this?” Make it explicit that the form or shape of an object or system is frequently related to use, operation, or function. Scientists infer function by referring to form and also explain form by referring to function.
5. Provide students with a handout (see below). On the first page, there are functions of five parts of a bird. The second page includes the forms of feet and beaks.
6. Have students form group of three or four.
7. Ask each group to choose functions that they are interested in.
8. Ask them to pick one member of each group, who will be their bird.
9. Provide materials and get each group to make a bird. You can also ask students to come up with the habitat of their bird.
10. After done with designing a bird, ask them to present what functions they had and why they interpreted certain forms in that way. Students can also justify why they used certain materials for the form that they inferred. Another way of presenting these birds is that the audience of students can infer what the function might be from the form of a bird that each group has made. At this moment, it would be a great chance to discuss the distinction between observation and inference. Through observing a form, students should infer what its function might be. The form would directly be observable using our senses, but its function is not directly observable.

## Handout

### Bird Part Functions

1. You catch fish with your **beak**.
2. You tear flesh with your **beak**.
3. You collect nectar from deep inside flowers through your **beak**.
4. You crack hard seeds with your **beak**.
5. You hammer holes into trees with your **beak**.
6. You probe deep in the dirt with your **beak**.

1. You paddle around in the water with your **feet**.
2. You catch mice with your **feet**.
3. You catch fish with your **feet**.
4. You climb up and down trees with your **feet**.
5. You perch on thin branches with your **feet**.
6. You can wade through muddy waters with your **feet**.

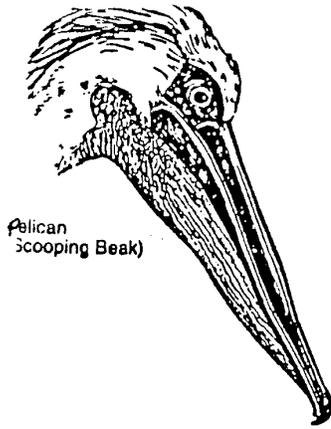
1. You use these **wings** to glide through the air.
2. Your **wings** help you to quickly change directions.
3. Your **wings** keep you soaring in the sky.
4. You use your **wings** to hover over a flower.
5. Your **wings** make no sound when you fly.
6. You can reach great heights with your **wings**.

1. Your **eyes** can detect motion of objects at great distances.
2. Your **eyes** see well at night.
3. Your **eyes** can distinguish different colors.
4. Your **eyes** can see very small objects.
5. Your **eyes** have overlapping vision.
6. Your **eyes** see well in bright sunlight.

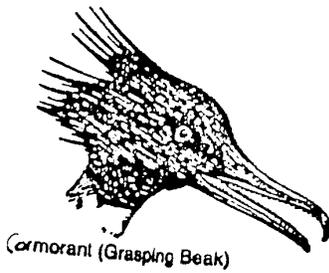
1. You attract a mate with your beautiful **tail**.
2. You flair your **tail** to frighten away enemies.
3. You use your **tail** to help support you as you climb trees.
4. Your **tail** helps to balance you as you perch on branches.
5. Your **tail** helps you to blend into your habitat.
6. Your **tail** assists you in rapid flight.



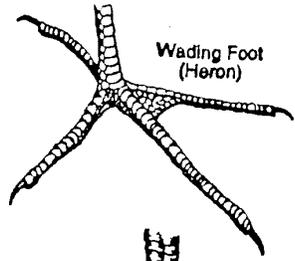
Hummingbird (Sipping Nectar)



Pelican (Scooping Beak)



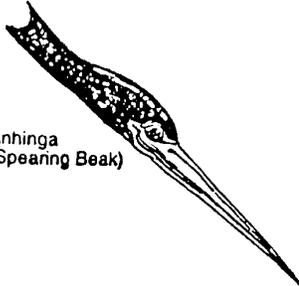
Cormorant (Grasping Beak)



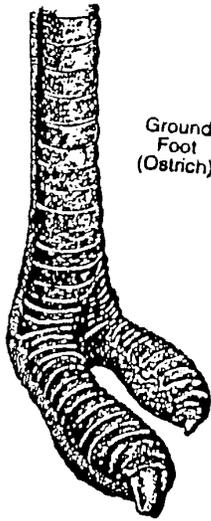
Wading Foot (Heron)



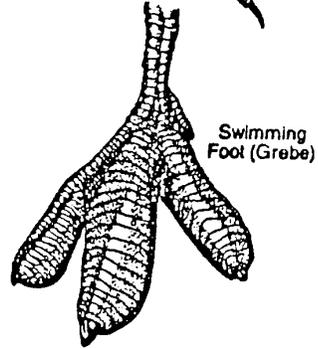
Nighthawk (Sweeping for Insects)



Anhinga (Spearing Beak)



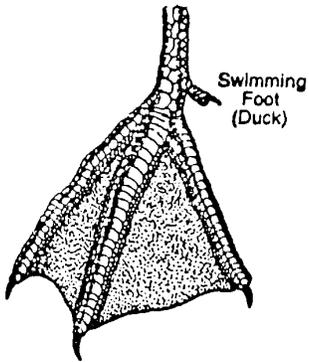
Ground Foot (Ostrich)



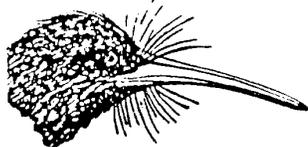
Swimming Foot (Grebe)



Woodpecker (Chiseling for Insects)



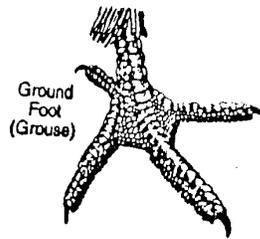
Swimming Foot (Duck)



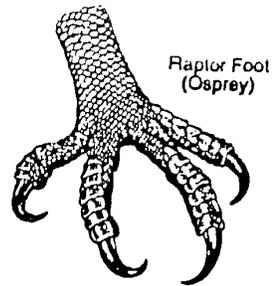
Wren (Probing Beak)



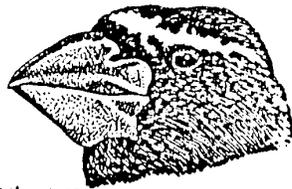
Hawk (Tearing Beak)



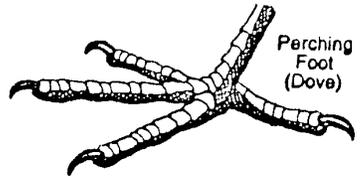
Ground Foot (Grouse)



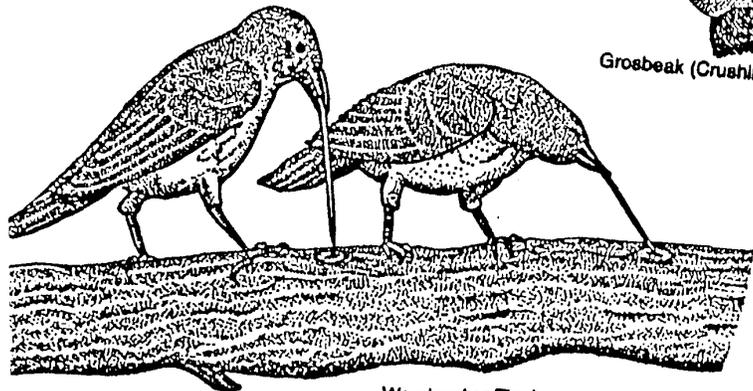
Raptor Foot (Osprey)



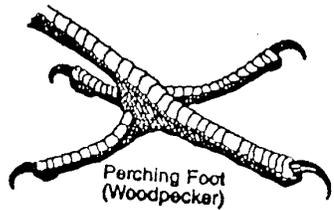
Grosbeak (Crushing Seeds and Nuts)



Perching Foot (Dove)



Woodpecker Finches



Perching Foot (Woodpecker)