Built to Feed

How beaks and feet help birds use different habitats

ZOO.9.9 "Demonstrate how different adaptations of the bird beak and feet allow them to feed and survive in different environments."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline each bird's beak features and circle its foot features. Draw an arrow from each marked feature to the feeding or movement action it helps the bird perform.

Three Meals, Three Sets of Tools

1. At the edge of a forest, a downy woodpecker climbs a tree trunk while searching for insect larvae beneath the bark. Its short, strong beak strikes the wood again and again, opening a path to food that a thin beak could not easily reach. Two toes point forward and two point backward on each foot, helping the bird grip rough bark as it climbs. A stiff tail also braces it against the trunk. Together, the beak and feet let this bird feed on a nearly vertical surface instead of relying on food scattered across the ground.

2. Across a nearby pond, a mallard feeds in shallow water. It dips its broad, flattened beak into the pond and draws in water with tiny plants and small aquatic animals. Rows of thin plates along the beak's edges help it strain food from the water. Its webbed feet push against the water like paddles, moving the bird between feeding spots. A woodpecker's gripping toes would not provide the same push. The mallard's beak and feet work together in this habitat: one gathers food from the water, while the other helps the bird travel across it.

3. Over the pond, an osprey spots a fish near the surface. It dives feet first and grabs the fish with long, curved talons. Small, rough bumps on the soles help hold slippery prey, and one outer toe can turn backward to improve the grip. After lifting off, the osprey uses its sharp, hooked beak to tear pieces from the fish. Paddling feet or a flat beak would be poorly suited to seizing and tearing this prey. The osprey's feet catch a moving meal in open water, while its beak makes that meal easier to eat.

2 ANSWER WITH EVIDENCE

Use the passage

1. How do the woodpecker's beak and feet help it find food while climbing a tree trunk?

2. How do the mallard's beak and feet help it feed in a pond?

3. Both the mallard and the osprey feed at a pond. Why are their feet suited to different ways of getting food?

4. If an osprey had a mallard's flattened beak, which part of eating a fish would be harder? Explain using the passage.

3 YOUR TURN

Your own words

Invent a bird that eats a food and lives in a habitat not described in the passage. In four sentences, describe its food and habitat, its beak and feet, and how those features help it feed or survive.

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PART 1 · READ AND MARK

Underline each bird's beak features and circle its foot features. Draw an arrow from each marked feature to the feeding or movement action it helps the bird perform. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	How do the woodpecker's beak and feet help it find food while climbing a tree trunk?	**Its strong beak strikes wood to reach insect larvae beneath the bark. Its opposing toes grip the bark while it climbs.**
2	How do the mallard's beak and feet help it feed in a pond?	**Plates along its broad beak strain food from the water, while its webbed feet push it between feeding spots.**
3	Both the mallard and the osprey feed at a pond. Why are their feet suited to different ways of getting food?	**The mallard's webbed feet paddle it through the water as it gathers food. The osprey's talons and rough soles grip a slippery fish.**
4	If an osprey had a mallard's flattened beak, which part of eating a fish would be harder? Explain using the passage.	**Tearing pieces from the fish would be harder because the osprey uses a sharp, hooked beak for that task.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

My bird feeds on nectar from long flowers growing on windy coastal cliffs. Its long, narrow beak reaches nectar at the bottom of each flower. Three forward toes and one backward toe clasp the branches of flowering shrubs. This grip keeps the bird steady in the wind while it feeds.

Accept other accurate links between each feature and what it enables the bird to do. For Part 3, look for a new habitat and food source with plausible beak and foot features that serve explained purposes.