# Built to Migrate

Seasonal resources and inherited behavior in bird migration

**ZOO.9.13** "Explain the reasons for bird migration and the innate behavior of migratory birds."

NAME _____ DATE _____

## 1 READ AND MARK

Read it twice

**YOUR JOB** Underline two benefits birds gain by moving between seasonal habitats. Circle two pieces of evidence that migration is innate, then number two ways birds respond to conditions during a trip.

### A Blackpoll Warbler's Journey

1. On a September night, a blackpoll warbler may leave northeastern North America and head toward South America. Many travel over the Atlantic, a demanding flight for a bird that weighs about as much as three nickels. Why leave? As northern days shorten, the insects these birds eat become harder to find. Farther south, food remains available during the northern winter. The trip costs energy and carries risks, but staying could mean too little food. In spring, the birds return north, where long days and a surge of insects support nesting and the feeding of chicks. Migration links each season to a place with useful resources.

2. A young blackpoll can make its first autumn trip without following an adult. In studies, young migratory birds raised without experienced guides become restless during migration season and favor a particular direction. These patterns suggest that the urge to depart and a basic heading are innate, or inherited rather than taught by parents. Shorter autumn days help start internal changes, including increased feeding and fat storage that fuel flight. An inherited heading is not a detailed map. Birds also orient using cues such as stars and Earth's magnetic field, and they may adjust their course when winds push them off track.

3. Suppose a strong wind delays a bird at a coastal stopover. Resting and eating there can rebuild the fat it needs for the next flight. This adjustment does not mean its migration is learned from scratch: an inherited tendency can work alongside information from current conditions. Some birds also improve navigation through experience on later trips. Spring migration brings another change in daylight and a shift toward northern breeding areas. Moving north is useful then because insect numbers rise just as chicks need food. Across both seasons, migration reflects an interaction between inherited behavior, environmental cues, and changing supplies of food.

## 2 ANSWER WITH EVIDENCE

Use the passage

1. Why might a blackpoll warbler risk a long flight south rather than stay in its northern habitat for winter?

2. How does returning north in spring help blackpoll warblers raise chicks?

3. What evidence in the passage suggests that the urge to migrate and a basic heading are innate?

4. A wind pushes a migrating bird off course. Explain why changing direction afterward does not mean its migration is entirely learned.

## 3 YOUR TURN

Your own words

A town plans to keep bright stadium lights on all night during fall migration and remove a marsh where traveling insect-eating birds rest. Write four sentences advising the town: explain why these birds travel south, name an innate behavior that helps start migration, and explain one possible effect of each plan.

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## PART 1 · READ AND MARK

Underline two benefits birds gain by moving between seasonal habitats. Circle two pieces of evidence that migration is innate, then number two ways birds respond to conditions during a trip. Accept any marking that follows this job and points at the right text.

## PART 2 · ANSWERS

| # | QUESTION | ANSWER |
|---|---|---|
| 1 | Why might a blackpoll warbler risk a long flight south rather than stay in its northern habitat for winter? | **Northern insects become harder to find in winter, while food remains available farther south. The risky flight can help the bird avoid a food shortage.** |
| 2 | How does returning north in spring help blackpoll warblers raise chicks? | **Longer northern days and rising insect numbers support nesting and provide food for chicks.** |
| 3 | What evidence in the passage suggests that the urge to migrate and a basic heading are innate? | **Young blackpolls can travel without following an adult, and young migratory birds raised without experienced guides show seasonal restlessness and favor a direction.** |
| 4 | A wind pushes a migrating bird off course. Explain why changing direction afterward does not mean its migration is entirely learned. | **An inherited urge and basic heading can guide migration while the bird uses current cues to adjust its course.** |

## PART 3 · YOUR TURN (SAMPLE ANSWER)

The birds travel south in fall because insects become scarce in their northern breeding area. An inherited urge to migrate can make young birds restless and ready to leave even without an adult guide. Bright stadium lights could make it harder for night-flying birds to use stars for orientation. Removing the marsh could take away a place to rest and eat before the next flight.

Accept other explanations that connect southward migration to seasonal food, identify an inherited migratory tendency, and reasonably infer separate effects of the lights and habitat loss. Students should describe possible effects rather than claim that either plan will affect every bird.