



Worksheet 1 – Migration Facts I

Instructions: Please review the Migration Facts section on the Bird's Eye View of the Chicago Migratory Route web site at www.cityofchicago.org/Environment/BirdMigration. Upon completing your review of the Migration Facts section, answer the following questions. Remember, each question has only one correct answer. Good luck!

Fill in the Blank

Use the following words to complete the sentences below. You may use each word only once or not at all. While more than one word on the list may complete a particular sentence, choose the best word.

- | | | |
|---------------------------|-----------------------------|------------------------------|
| ▪ Aerodynamic | ▪ Hypothalamus | ▪ Pesticides |
| ▪ Banding | ▪ Midwestern Flyway | ▪ Pituitary Gland |
| ▪ Bird species | ▪ Migration | ▪ Radar |
| ▪ Breeding range | ▪ Migratory Bird Treaty Act | ▪ Radio tracking |
| ▪ Direction | ▪ Migratory birds | ▪ Shelter |
| ▪ Endangered Species Act | ▪ Migratory direction | ▪ Shelter and nesting |
| ▪ Environment | ▪ Mississippi Flyway | ▪ Soaring birds |
| ▪ Ducks, Geese, and Hawks | ▪ Navigation | ▪ Songbirds |
| ▪ Flight speed | ▪ Nesting | ▪ Summer range |
| ▪ Flocking | ▪ Nocturnal | ▪ Wading birds |
| ▪ Food and shelter | ▪ Passerines | ▪ Wild Bird Conservation Act |
| ▪ Habitat | ▪ Pigeons | ▪ Winter range |

1. Bird _____ is the seasonal movement of birds from one region or climate to another and back again.
2. Chicago is an important resting and feeding place along the _____.
3. As winter approaches and the days get shorter, the reduction of light affects the bird's _____, the neural centers in the lower part of the brain that control appetite.
4. _____ can only migrate during the day, because they depend on updrafts created by thermal convection or redirected wind that only occur with daylight.
5. Studies indicate that _____ is inherited and that birds are genetically programmed to fly a certain distance.
6. Some bird species do not use the same routes to travel from their breeding grounds and from their _____.
7. The common factor for both slow and fast migrants is that they time their arrival in the _____ when the conditions are optimal for reproduction.



8. _____ migrants generally begin their flight shortly after sundown, gain their maximum altitude quickly and maintain this peak until midnight.
9. Even if they're not traveling together, you might see different _____ passing through the same area at the same time.
10. Flying in V-shaped flocks, like Canada Geese and Double-crested Cormorants, provides _____ advantages, helping the migrants conserve energy.

True/False

For each of the statements below, decide whether that statement is true or false

- T F 1. Birds are the most mobile creatures on earth and approximately 3 million pass through Chicago each year.
- T F 2. Chicago is an important stopover on the Mississippi Flyway, because Lake Michigan on the east and open farmland on the west and to the south do not provide the necessary resting and feeding stops during migration.
- T F 3. During the period of time prior to migration, birds typically increase their night activity.
- T F 4. During the migration cycle, a bird's body fat can go from 3-5% of total body weight, to 60% for long distance migrants.
- T F 5. Birds typically migrate during the daytime to take advantage of the light to find their way.
- T F 6. Some birds only migrate vertically up and down mountainsides.
- T F 7. The Pacific Oceanic Routes are the longest of the North American flyways.
- T F 8. Birds in flocks usually fly slower than birds flying alone, because birds flying alone are more vulnerable to predators.
- T F 9. Studies have shown that birds travel several miles per hour faster during their spring migration to their nesting grounds than to their winter homes in the fall.
- T F 10. The common factor for both slow and fast migrants is that they time their arrival in the breeding range when the conditions are optimal for reproduction.



Multiple Choice

For each of the questions or statements below, select the answer that best answers the question or completes the statement.

1. During the early days of bird migration study, researchers believed that during the winter birds did all of the following, except _____.
 - a. Hibernated in hollow trees
 - b. Hibernated in caves
 - c. Changed seasonally from one species to another
 - d. Hitched a ride on the backs of larger birds
 - e. None of the above
2. Over _____ different bird species pass through Chicago each year.
 - a. 100
 - b. 175
 - c. 300
 - d. 500
 - e. 1,000
3. To help them find their way during migration, scientists believe that birds use all but the following environmental indicators to find their way, except _____?
 - a. Landmarks
 - b. The moon and the stars
 - c. The earth's magnetic field
 - d. Sonar
 - e. Their sense of smell
4. Which of the following is one of the seven major North American flyways?
 - a. Mackenzie Valley-Great Lakes-Mississippi Valley Route
 - b. Atlantic Coast Route and Tributaries North
 - c. Hudson River Route
 - d. Midwest Flyway
 - e. Hawaiian Oceanic Route
5. Most birds fly at a speed of _____.
 - a. 5 to 10 miles per hour
 - b. 10 to 20 miles per hour
 - c. 20 to 50 miles per hour
 - d. 50 to 75 miles per hour
 - e. None of the above



6. Radar studies indicate that daytime migrants fly in tighter groups than nocturnal migrants. Scientists have theorized that this may be for all of the following reasons, except _____.
 - a. Protection, as most predators hunt their prey by day
 - b. Aerodynamics, as calmer skies typically occur by night
 - c. Light, as birds can see better
 - d. None of the above

7. The law that protects species or families of birds that live, reproduce, or migrate within or across international borders at some point during their annual life cycle.
 - a. Executive Order on Migratory Birds
 - b. Wild Bird Conservation Act
 - c. Fish and Wildlife Conservation Act
 - d. Ramsar Convention
 - e. Migratory Bird Treaty Act

