

Table of Contents

Introduction	3
Glossary of Terms	5
Meeting Standards	6
Science	
DNA	8
What's Out There?	12
Biodiversity	16
All About Animal Migration	20
Clouds	24
Sources of Energy	28
Social Studies	
Government Around the World	32
The Middle East	36
Native Americans	40
The U.S. Constitution	44
Nobel Prizes	48
Language Arts	
Getting to the Root	52
Words About Words	56
All About Books	60
Computer Talk	64
Math	
Calendar Basics	68
Metric System	72
Money Around the World	76
Primes, Percents, Fractions, & Fractals	80
Finding the Area	84
Across the Curriculum	
<i>Art: Through Artists' Eyes</i>	88
<i>Geography: Reading a Map</i>	92
<i>Health: Body Basics</i>	96
<i>Music: Music and Dance</i>	100
<i>Physical Education: Exercise</i>	104
Answer Key	108

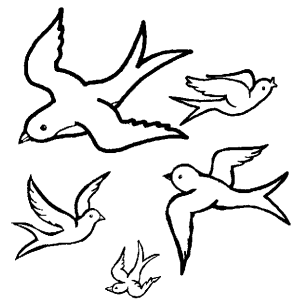
All About Animal Migration

The regular movement of animals during the year, usually following the seasons, is called **migration**. Animals travel at different times of the year to get the most from their surroundings. Their journeys range from tens of thousands of miles to only a few hundred yards!

Each year the **arctic tern** makes a 22,000-mile round-trip following the warmer weather from the northern Arctic polar region down to Antarctica. On the other hand, the **hummingbird** moves only a few hundred yards up or down a mountain. Arctic terns migrate over the sea—grabbing meals by diving into the water for fish. They stay in the Arctic only around 90 days before traveling south.

Other birds also log thousands of miles in search of warmth and food. The long-tailed **jaeger** flies 5,000 to 9,000 miles each way. Sandhill and whooping **cranes** fly as much as 2,500 miles each year, and barn **swallows**—which fly at speeds up to 46 mph—travel as far as 6,000 miles.

Swallows are among the first migrants each fall. Baby swallows and their parents learn each other's voices so they can stay together during migration. Most of the bird species that nest in the U.S. (520 out of 650 species) migrate south for the winter.

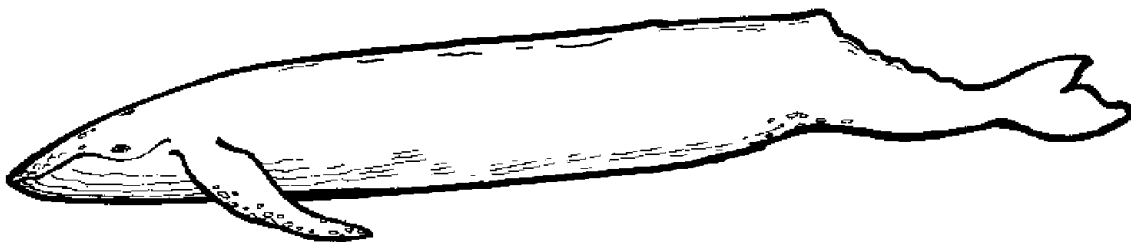


Monarch butterflies also travel long distances to stay warm, flying up to 3,000 miles to the same winter roosts—sometimes to the exact same trees! However, individual monarchs only make the round-trip once because their life span is only a few months. Their great-great-grandchildren return south the following fall.



Some migrations take place over longer periods of time. **Salmon** begin their lives in freshwater streams and rivers, migrate to the ocean as adults, then return to the streams to breed. They use their sense of smell to find the exact stream in which they were born. Fish that are born in freshwater, live in saltwater, then return to freshwater to spawn are called anadromous (eh-NAD-ro-muss) fish. Eels do the opposite and are called catadromous (ca-TA-dra-muss). They are born in saltwater, and grow up and live in freshwater.

Whales travel to cold water for feeding and to warm water to give birth. Humpback whales prefer the warm subtropical water off Hawaii to give birth to their young, so they make trips there each fall. Then they head north to spend the summer near Alaska, where the food is plentiful. They average only about 1 mile an hour—taking plenty of time to rest and socialize along the way.



Find the following on page 20 and write your answers in the boxes:

1. a double-digit number	2. a word in boldface type
3. a place starting with the letter "A"	4. $500 \times 5 =$
5. a speed	6. a hyphenated term with both numbers and letters
7. the children of great-grandchildren	8. what a person does after he/she chews food

Use words from page 20 to finish the following sentences:

9. Seasonal movement of _____ is called "migration."
10. Arctic terns go _____ after staying in the Arctic for _____.
11. Catadromous fish live in freshwater, but they are born and spawn in _____.

Identify the animal based on the statistical clues given:

12. flies as much as 9,000 miles in search of warmth or food	13. makes a 22,000-mile round-trip yearly
14. moves at an average speed of 1 mph on its migration	15. about 5/6 of all U.S. species of this type of animal migrate south for the winter