5 Great Migrations

Subject Area

The World of Science & Technology

Topics & Curriculum Links

migrating animals (Science)

types of migration (Science)

animal life cycles (Science)

dangers in the environment (Geography; Civics)

changing climates (Geography; Science)

protecting animals (Science; Civics)

places and countries (Geography)

sizes and measurements (Mathematics)

Vocabulary

animals; parts of the body; places; weather; climate; seasons; plants; buildings; measurements; numbers; countries; continents

Grammar

present simple; present continuous; past simple; present perfect; future simple; question forms; imperative; passive; adjectives; prepositions; adverbs

Teaching Ideas

See also pages 6–7 for general ideas that you can adapt. Or go to **www.oup.com/elt/teacher/readanddiscover**

READ&TALK An Animal Presentation

After completing Project 1, students present one of their animals to the rest of the class. They can talk or write about it like this: *It's a / an … It's … It migrates … kilometers from … to* … Or students can talk about their animal without saying its name, and ask the class to guess the animal. This could also be done in pairs. Posters can then be displayed together. Students can also use a copy of the world map on page 7 to show the different migration routes.

READ&TALK A Migrations Survey

After completing Project 2, students collect the survey information from the class. They can do this by listening to each student giving their information in turn, or by collecting the information in a big chart on the board. Then they make a poster to show the class results.

READ&TALK A Migrations Quiz

Ask the class quiz questions, using facts from the Reader, or describe an animal from the Reader. Students can work in pairs or small groups to answer the questions or to guess the animal. Then in pairs or small groups, students can do their own quiz.

Activities Answers

Pages 36–37 1 1 food, water, live, breed **2** longer, shorter, hotter, colder, food, chemicals **3** landmarks, sun, moon, stars, smells, sounds, Earth's magnetic field **4** bad weather, predators **2** 1 migration: when animals move from one place to another **2** migrant: an animal that migrates **3** complete migration: when all the animals in a species migrate **4** partial migration: when only some animals in a species migrate **5** predators: animals that kill and eat other animals **3** 1 ~~breed~~ migrate 2 ~~week~~ year 3 ~~garden~~ field 4 ~~Zebras~~ Bats 5 ~~smells~~ echoes

Pages 38–39 1 1 New Zealand 2 China 3 Alaska 4 Florida 5 Wisconsin **2** 1 south, north 2 north, south 3 east, west 4 Tropics **3** 1 Bar-tailed godwits fly further without stopping than any other bird. 2 Bar-tailed godwits fly 11,500 kilometers without stopping. 3 Geese and cranes learn where to go from their parents. 4 Geese and cranes fly in a V-shape. 5 Whooping cranes almost became extinct in the USA. 6 Whooping cranes have learned to migrate by following planes. **4** 1 Because it's too cold and there is not enough food. 2 Because days are long, and they can find food for their young. 3 They eat a lot of food, double their weight, muscles become stronger, they molt. 4 Good weather. 5 Hunters, tall buildings, loss of habitats from farming or building.

Pages 40–41 1 1 larvae 2 old skin 3 habitats 4 south 5 trees 6 eggs **2** 1 fall 2 less 3 millions 4 body 5 winter **3** 1 larvae: baby animals that change when they become adults 2 irruptive migration: when animals move away because there are too many in one place 3 wet season: the rainy time in the Tropics 4 swarms: large groups of insects **4** 1 Because they live for less than a year. 2 They change color, and they change how they live. 3 More than 1,000 kilometers. 4 During the wet season.

Pages 42–43 1 1 Reindeer migrate in big herds to find grass and lichens. 2 Lemmings migrate to new places when there are too many of them. 3 Frogs and toads migrate to water to breed. **2** 1 deer, Arctic 2 north, grass 3 snow, lichens 4 grow **3** 1 Because they live in large groups. 2 Because there are fewer predators. 3 Because there is too much snow and not enough food. 4 To find a new place to live with lots of food. **4** 1 tunnels 2 lemmings 3 lichens 4 toad 5 chamois 6 Sami 7 herd 8 wolves

Pages 44–45 1 1 one 2 3,000 3 200,000, 500,000 4 100, 300 5 80 6 six **2** 1 giraffe 2 zebra 3 hyena 4 gazelle 5 lion 6 buffalo 7 crane 8 leopard **3** 1 eat 2 migrate 3 fight 4 thin **4** 1 rain 2 north, south 3 Serengeti 4 rivers 5 grass 6 Male 7 find a mate 8 grass

Pages 46–47 1 1 humpback whale. Favorite food: krill; Lives (summer): polar oceans; Lives (winter): warmer, tropical oceans; Amazing facts: migrates further than any other mammal, makes special sounds **2** 1 squid 2 dolphin 3 penguin 4 tuna 5 plankton 6 sea turtle **3** 1 mothers 2 male 3 16 4 feed 5 vertical **4** 1 tuna 2 penguin 3 humpback 4 plankton 5 krill 6 shark **5** 1 Up to 17,000 kilometers every year. 2 To breed. 3 To find krill. 4 So that ocean currents will carry the eggs away from predators. 5 To eat plant plankton.

Pages 48–49 1 1 hatch 2 migrate 3 ocean 4 adult 5 breed 6 larvae 7 young 8 rivers 9 ocean **2** 1 Salmon migrate from the ocean to rivers to breed. 2 Bears hunt salmon when they swim up rivers. 3 Eels migrate from rivers to the ocean to breed. 4 Sea turtles lay their eggs on land **3** 1 land 2 ocean 3 sand 4 ocean **4** 1 They use smell. 2 They change color from silver to red. 3 Fish ladders. 4 Their stomachs become smaller and their eyes become much bigger.

Pages 50–51 1 1 fishing, hunting 2 roads, power lines, wind turbines 3 trees, ponds, dams, fences 4 storms, ice on polar oceans, deserts, ocean currents **2** 1 albatrosses 2 willow warbler 3 Polar bears 4 seals 5 Cod **3** 1 Because our vehicles, factories, and power stations are making too many gases like carbon dioxide. 2 Because the climate is changing. 3 On the ice in the Arctic. 4 There is less ice to walk on so they have to swim too far. 5 To help them see where the animals are migrating.