

Teacher's Guide for ASK: *The Puzzle of Migration...How (and Why) Do Animals Do It?*

March 2007

Teacher's Guide prepared by Alissa Eller

Objectives:

- Students will gain an understanding of high frequency science vocabulary
- Students will be able to comprehend and explain the various reasons an animal migrates
- Students will be able to use information from the text to compare and contrast various animal species and their migration patterns

Introduction: Pre-reading activities

- Ask if anyone in class has ever moved
- Discuss reasons a person might move to a new home, new town, new state or even new country
- Have students fold paper into four sections (1/2 and 1/2 again). Label each section by season; winter, spring, summer, fall
- Have students draw a picture that represents each season in the appropriate box

Scoops: pg.2

- Key vocabulary terms to discuss: recycle, compost, castings
- Discuss how the worms are "recycling" old food into something new and usable
- Draw a flow chart on the board. Have students fill in the steps that lead to composting as described in the passage.

Flying Boats: pg. 3

- Why did designers need to create the Falkirk wheel?

Underwater Surprise: pg. 3

- Why do scientists believe Bird's Head Seascape may be the richest patch of ocean in the world?
- What poses the greatest danger to this ecosystem?

The Hows-and-Wows-: pg 6-14

- Vocabulary to know: migration, instinct, infrasound, magnetite, predator, hibernate
- About how many birds migrate every year?

- Discuss where you live. Is your area a fall/winter migration spot or a spring/summer nesting ground?
- Name two natural instincts that trigger birds to know when it is time to migrate.
- Have students draw either a bubble map or a Venn Diagram on a piece of plain paper. Label one circle or bubble Gliding birds and the other circle or bubble Flapping Birds. compare and contrast the two. Use this visual aid to help answer the following question in a complete paragraph.

Describe the difference in migration of Gliding Birds and Flapping Birds.

- What are a few reasons birds migrate and why do they return?
- Fun activity: Go on a nature walk. Find pinecones or twisted, knotty sticks outside. Bring them in and cover them with peanut butter. Then, cover with birdseed and hang outside the classroom window. On a clipboard have students log the birds that they see eating.

Risky Business: pg 14

- Vocabulary: Volunteer, rehabilitation, and climate.
- Go on the Internet and find pictures of the Monarch butterfly and the Spotted Salamander.
- Go to the Chicago Bird collision Monitors website: www.birdmontiors.net/
- What was the danger posed for the birds, Monarch butterflies and spotted Salamander and how was this problem solved?
- In small groups have students research their own endangered animal. Have each group present their animal, and how they can help it survive.

How Small: pg 20-22

- Vocabulary: tracking device, transmitter, frequency
- Have students write their daily activities as if they were wearing a tracking device.

Coming Through the Clouds: pg 22- 26

- Vocabulary: Migratory worker, nomad.
- On a globe find Mongolia

A Dark and Stormy Night: pg. 26-27

- Describe the different stages the freshwater eel goes through to become an adult.
- Discuss the different stages humans go through before they are adults

