

Teacher Guide for ASK

April 2013: Meet the Family

This guide was prepared by Betty Lou Askin, a retired educator who lives in Toronto, Ontario.

Objectives:

- To learn about some ancient relatives.
- To appreciate the work done by anthropologists, especially the Leakeys.
- To learn about the similarities and differences between humans and the Neandertals.

Pre-reading:

*Have the students look at the cover of the magazine. Ask them what they see and what might be contained in this issue of ASK.

*Let the students look at the Table of Contents and then discuss what the pictures might suggest.

Scoops

Wireless Messengers

- Why were carrier pigeons used during the World Wars?
- Describe the bird that was found in England.

A Better Bike

- Describe the Fliz.
- Who might use the Fliz?

Cow Swallows Bot, Phones Home

- What do grazing animals produce?
- Why is this a problem?
- Describe what scientists in Australia have invented.

Noc Talk

- Why did early explorers call the beluga whales canaries?
- Why was Noc amazing?

Ask the students to look for more science scoops when they read printed material or when they watch television. Create a bulletin board to post their findings.

Nestor's Dock

- What happened to Phil?
- What did the ranger ask the friends to do?
- Why was the ranger excited about his find?
- Why was the ranger disappointed?

Your Family, Our Family

Reading for information:

- In what ways are you different from anyone else?
- What species do you belong to?
- Who has the biggest brains?
- Why do humans have small teeth?
- Explain what it means to evolve.
- What is helping scientists to learn about the evolution of humans?

- What is DNA?
- To what species do humans closely relate?
- Who are hominins?
- Explain what scientists learned about Toumai.
- How did scientists get an image of Toumai?
- Why do scientists think that our ancient ancestors started to walk upright?
- What changes occurred when they walked upright?
- What did scientists learn about Ardi?
- How did walking help early apes?
- What did the scientists discover about Lucy?
- Describe Turkana Boy?
- Explain how "Handy Man" was different.
- Who was Rhodesian Man?
- Describe the types of activity that the Neanderthals performed.

Primate Puzzlers

- Use the Read Aloud Method. Let the students take turns reading parts of this article.

Your Family Tree

- How might a family tree be developed?
- Complete your family tree.

Meet the Leakeys

Questions to use with a discussion:

- What did Mary Leakey find?
- What was Zinj?
- Tell what Louis found in Kenya.
- Why was his discovery important?
- Describe how young Louis spent his days.
- What happened to him at age 13?
- What did Louis want to do when he returned from England?
- Describe Mary's background.
- Why did Louis and Mary make a good team?
- Explain why the work done by the Leakeys was important.
- Why do you think that Louis wanted to make ancient tools?
- Explain why Mary's 1978 discovery was so important.
- What did Richard Leakey choose as a career?
- Explain why Richard's find at Lake Turkana was so important.
- Why did Louise make history?

See Your DNA

- If possible try this experiment.

The Neandertals Next Door

Reading for understanding:

- Use a Map of the World or a Map of France to point out the Vezere River and Castel Merle.
- Why is this area important?

- Why were Neandertals able to stand cold weather?
- Tell why Castel Merle was important to the Neandertals.
- What artefacts were left behind?
- Who were "Homo sapiens"?
- Explain the difference between Neandertals and Cro-Magnons.
- Explain what Cro-Magnon homes tell scientists.
- What home improvements were developed?
- Explain why Cro-Magnons may have survived while Neandertals became extinct.

Jimmy the Bug

- How did ancient Greeks discover static electricity?
- Explain how we got the word "electricity".
- What was Benjamin Franklin's contribution?
- Tell how the first battery was discovered.
- What did Michael Faraday create?
- Describe electricity.

Marvin and Friends

- What is an anthropologist?
- Tell why each of the friends think that they are the best anthropologist.

Don't forget:

To visit www.nature.com/news/the-whale-that-talked

To learn about the human family at www.humanorigins.siedu

To follow the instructions for the Contest on page 31 and to share your work with your classmates.