

# Teacher's Guide for *Odyssey, The Magic of Language*

January 2007

Betty Lou Askin, a retired elementary school principal in Toronto Ontario, prepared this guide. She continues to work and contribute to the educational field in many ways on a part-time basis.

## Objectives:

- The students will gain an understanding of the complexities of language development.
- The students will appreciate the human level of communication over that of the animal kingdom.
- The students will begin to think about the development and use of language for the future.

## Prior Knowledge:

- Since there are many references to the human brain, it would be a good introduction to test the students' knowledge about the parts of the brain. (left and right hemispheres, lobes, etc.)
- A chart showing the various sections of the brain would also be a useful tool to have available during the reading of this issue.
- If you do not choose to introduce the magazine in this fashion, you may consider doing so before reading the article, *We Speak with the Left Side of Our Brain!*, page 16.
- Ask the students to talk about their understanding of human language development. Do they have the opportunity to observe a younger sibling learning how to talk? This information could be recorded on the chalkboard.

## Science Scoops (pages 2-5)

### Smell Worm?

- Explain how scientists hope that worms will help with future security.

### You SnooZZZe, You Win!

- Why would you tell your teacher that you need to sleep on it when you have something that you need to memorize?

### Just Think!

- Explain why BrainGate may help people in the future.

### Singing Volcanoes

- Write a newspaper story informing the public about the studies that are being conducted to predict volcano eruption.

### Spacecraft Blows Up!

- Genesis is a prototype. Explain what this means.

### Every Child Is a Genius! (pages 6-9)

- This article tells about a "sensitive period" in a child's language development. This time period could be called a **window of opportunity**. Explain what this could mean.
- Why is the title of this article appropriate for the content of the passage?

### Magical Mistakes! (pages 8-10)

- Justify why children’s language mistakes are magical.
- Express in your own words what “over-regularization” means.

### **Why Howard Doesn’t Talk** (pages 11-13)

- Use the information provided in this article to describe an autistic person.
- Describe what “social connectedness” means.

### **Speech Dances of the Vocal Tract** (pages 14-15)

- Make a list of the **articulators** mentioned in this passage. Outline how each of the articulators contributes to speech.
- What is the “dance of speech”?
- Explain why the dance of speech is compared to a trombone.

### **We Speak with the Left Side of Our Brain!** (pages 16-18)

- Make a list of the major parts of the brain. Briefly describe the role of each chosen section.
- **Research:** The students could do some research on the workings of both the left and right sides of the brain. This information could then be shared/presented to the entire class.
- After the students have a better understanding of the attributes of each side of the brain, ask them to choose and defend which side of their brain is dominate.
- Recount Broca’s understanding of the brain.
- Outline what Wernicke believed about the brain.
- These two men made many contributions to the understanding of the brain’s function in language development. Explain why today it is thought that their theories were simplified.
- Describe how action verbs affect the brain.

### **Looking at Language in the Brain** (page 19)

- Important tools for studying the brain are the following:  
MRI  
FMRI  
PET  
MEG
- Choose 1 of these techniques and use the information from the article plus some personal research to prepare a report about your chosen topic. Share this information with classmates.

### **How Evolution Cobbled Together a Talking Ape** (pages 20-23)

- Explain how human language is more advanced than that of the animals.
- What role do genes play in language development?
- Explain **survival of the fittest**.
- Define **descent with modification**.
- If our DNA is similar to that of a chimpanzee, explain why only humans can talk.

### **Animal Communications 101** (pages 24-27)

- Explain what this concept means, “animal species evolve with specialized communications that are adapted to their environments”.
- Describe how apes can communicate with humans.
- Provide 3 reasons why animals communicate.

- The article states that animals communicate in 3 ways. Using your own words explain those 3 ways of communication.

### **Say What?** (pages 28-30)

- What did Eckert learn about social groups in high schools?
- Explain what Eckert found out about speech patterns within a social group.
- Explain Eckert's 3<sup>rd</sup> finding.

### **Jocks, Burnouts, & IN Betweens** (page 30)

- In your own words, explain why you think that an individual might become a jock, a burnout or an in between.

### **Activity to Discover** (pages 31-34)

- Can you understand the messages on pages 32 and 33? Write each message so that Auntie Mata could understand them.

### **Language Wheels** (page 35)

- Divide the class into groups. Give each group Professor Pickwick's challenge. Which group can finish first?

### **Going, Going, Gone!** (pages 36-38)

- **Pre-reading:** Ask the students to make a list of what they think are the 10 main languages of the world.
- Or, begin by reading the article to the students, include only the opening remarks and the section entitled "What Do You Know?"
- Describe the levels that measure the endangerment of a language.
- List and explain the reasons for a language disappearing.
- Relate the efforts that are being made to capture/preserve languages that are disappearing.
- Explain why a culture would want to relinquish their native language.

### **Do We Need a World Language?** (pages 39-41)

- Divide the class into four groups. Assign a proposal to each group. Ask them to list the advantages of their proposal and to be prepared to make a presentation to the class.
- Assign a proposal to each of the four groups. Ask the students to prepare a negative/rebuttal to their assigned task.

### **Sheep, Mutton, Ovine: The Three Tiers of English Vocabulary** (pages 44-46)

- There is a fair amount of information about the history of the English language provided in this article. Choose one aspect that you find interesting and write a paragraph to explain your interest and understanding of the information.