

**V**isual. **A**ngular. **A**uditory. **W**ernike. **B**roca. **M**otor.

**Purpose:** Language is a vital part of living. It is by far the most common way to convey thoughts and ideas. We talk, listen, and write everyday. As frequent as we make use of language, we rarely know what is really going on inside our brains when we carry out these functions. The goal of this model is to teach the children what areas in the brain may be involved in the processes of comprehension and production of speech/writings.

**Materials:** Tape recorder, paper, crayons, pen, pictures, cardboard, poster, different objects that represent the different regions that play roles in the process. For example, for motor cortex, we may choose to use something that is movable to indicate the function of this cortex. For Wernike's area, we may use a dictionary to signify its translating function. For Broca's area, we will probably use a oral cavity model. For angular gyrus, we may use a wire to represent its connection with the visual cortex. For auditory cortex and visual cortex, we will use a microphone and a camera respectively as metaphors to their functions.

**Procedure:** Starting off as a group, the group will be presented a tape recording of a descriptive poem of some sort. The recording will last for about 30 seconds. Then, the kids have to draw on a piece of paper to portray what they hear. We will encourage them to use their imagination. Note that listening and drawing are used in this experiment. We then explain to them what pathway that is involved to transform auditory information to drawing using the posters and visual aids. As a second demonstration of the pathway involved in reading and speaking, they will be asked to pair up with another individual. We provide a few simple pictures to one person in each group. For example, it can be a coarse drawing of an airplane. The pictures should be something that can be recognized easily. Then, the person who holds the picture has to use any word but the three words listed alongside the picture to depict what is on the picture to another person. If the picture is an airplane, you can not use words like fly or airport as the hints. One has to guess what object the other one is trying to describe. After this is done, we explain to them the pathway from visual cortex to motor cortex that is involved in this experiment. We associate the different portions of the brain with different objects that are familiar to them. These memory aids will help them cope with the technical terms of neuroanatomy.

**Issues:** It is obvious that real life situation of communication has many more components to it. The pathways that we use are oversimplified. Even though each area seems to have a specific function, it is the interaction between them that constitute the structure of language.