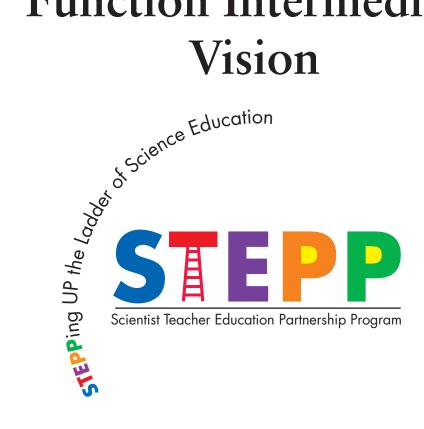
## **Function Intermediate** Vision



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# Sorting our Senses Lesson One

#### In a Nutshell

This lesson is intended for students to understand that the brain has many parts and each part plays a significant role in how we function. The lesson focuses on the four lobes of the cerebrum and how the lobes work with our senses so that we are able to function.

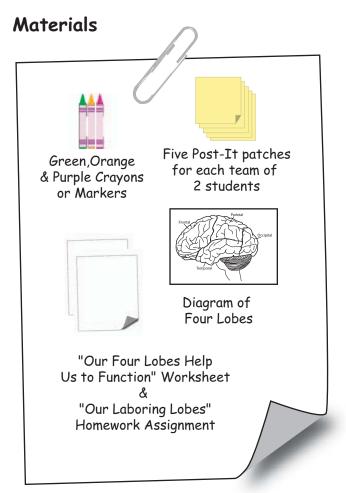
#### **Objectives**

Students will be introduced to the four lobes of the cerebrum.

Students will understand where each lobe is located within the cerebrum.

Students will begin to see how the lobes work with our senses so that we are able to function.

Before beginning this unit/lesson, please administer the Sensory Function Pre-Test.



#### Vocabulary

**Frontal Lobe** - Located in the front of the cerebrum. It helps you to move, helps your sense of smell, your emotions, your thinking and memory.

Occipital Lobe (awk-SIP-it-tul) - Located in the rear of the cerebrum. It helps you to see.

Parietal Lobe (pa-RYE-it-tul) - Located in the top middle of the cerebrum. It helps your sense of touch.

**Temporal Lobe** - Located in the bottom middle of the cerebrum. It helps you to hear and speak.

#### Vocabulary: Scientific Terms For Teachers

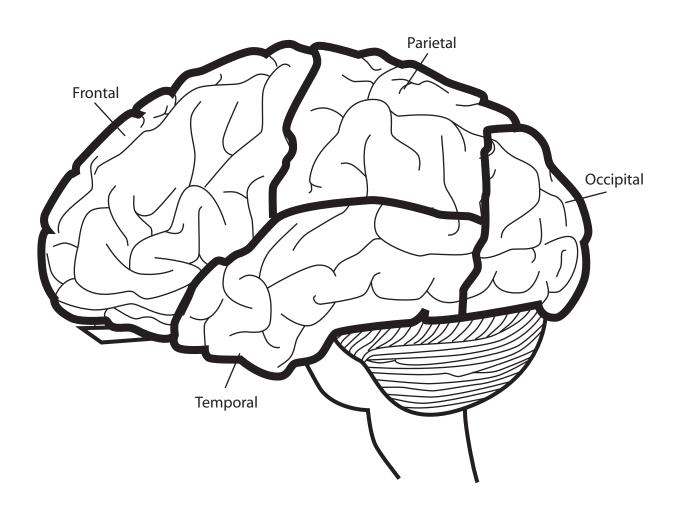
The following picture is intended to assist the teacher in seeing the locations of the four major lobes. An additional sheet has been provided for the students during the lesson.

**Frontal Lobe** - One of the four major subdivisions of the cerebral cortex (the outer layer of the cerebrum) located in the front of the cerebrum. It has a role in controlling the sense of smell, some movements, emotions, and thinking and memory.

**Occipital Lobe** - One of the four major subdivisions of the cerebral cortex located in the rear of the cerebrum. It plays a major role in visual perception.

**Parietal Lobe** - One of the four major subdivisions of the cerebral cortex located in the top middle of the cortex. It plays a role in the perception of touch, and complex visual perception.

**Temporal Lobe** - One of the four major subdivisions of the cerebral cortex located in the bottom middle of the cortex. It functions in auditory perception, speech and complex visual perception.



#### Note to Teacher

For this activity the class will begin to see that each section of the cerebrum contributes to the functioning of our senses. (If you have taught Beginner Function, the students may already know this information.) Each sense organ sends messages to the brain and the brain interprets this information. This lesson shows what primary section(s) of the cerebrum is/are involved in receiving a message from a particular sense organ and interpreting that message.

#### Procedure

1. The students should already know the three major parts of the brain (Cerebrum, Cerebellum and Brain Stem). Review the names of these three parts and what each part is responsible for:

**Cerebrum** - Contributes to your thinking, your 5 senses, and your memory.

Cerebellum - Controls your movement, balance, and posture.

**Brain Stem** - Controls your breathing, heart rate, blood pressure and digestion.

- 2. Explain to the class that we will be learning how important the brain is for us to function.
- 3. Pass out the "Our Four Lobes Help Us To Function" worksheet (pg 5). Explain to students that the cerebrum is divided into four different sections called LOBES. Each lobe is responsible for helping the brain to enable the body to function.
- 4. Introduce the students to the location and name of EACH LOBE (Do NOT explain the function of each lobe yet). Have students color-code the "Our Four Lobes Help Us To Function" worksheet.

Frontal = ORANGE Occipital = WHITE
Parietal = GREEN Temporal = PURPLE

- 5. Have students get into groups of two.
- 6. Pass out the "Diagram of the Four Lobes" worksheet (pg. 6) and five Post-It patches to each pair of students and ask the pairs to draw one sense organ on each Post-It.

- 7. Have the class listen carefully as you read the description for each lobe. As the students listen to the descriptions they should use the clues to figure out what lobe is being described. When they figure out the lobe, they should label the lobe on the "Diagram of the Four Lobes" worksheet. Students should then place the sense organ related to the lobe (Post-It patch) on the correct lobe.
- 8. When all descriptions have been read, go over the information below with the class. It is important to note that several of the lobes are responsible for more than one "job", but for this activity we are only looking to identify the FIVE SENSES.

#### Teacher Descriptions of Lobes

Note: You may wish to read directly from this sheet.

I am located in the front of the cerebrum. I control your emotions, your taste, thinking and memory.

**Answer: I am the Frontal Lobe** 

I am located in the rear of the cerebrum. I help you to see.

**Answer: I am the Occipital Lobe** 

I am located in the top middle of the cerebrum. I help your sense of touch.

**Answer: I am the Parietal Lobe** 

I am located in the bottom middle of the cerebrum. I help you to hear and speak.

**Answer: I am the Temporal Lobe** 

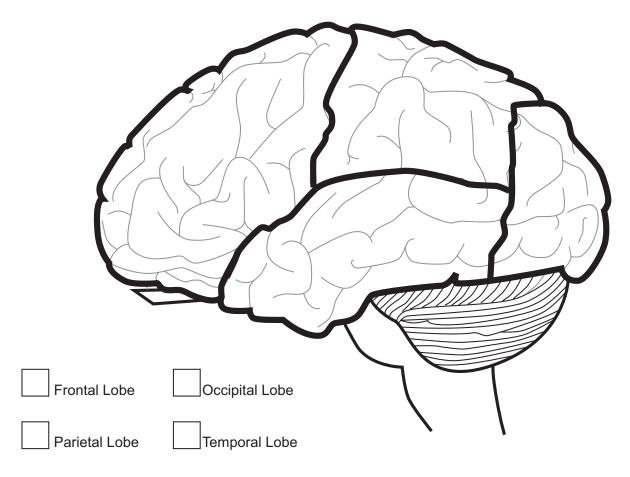
I am located in the front of the cerebrum. I help you to move and I help you to smell.

Answer: I am the frontal lobe

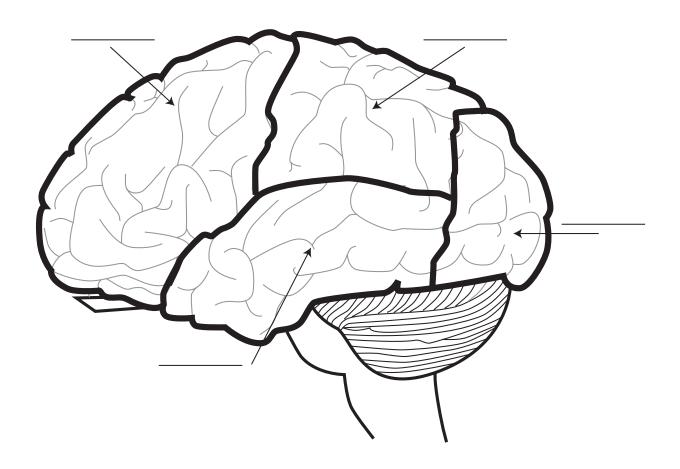
#### Homework

Complete for homework: "Our Laboring Lobes: The Jobs of the Lobes" (pg. 7) and "Our Laboring Lobes" diagram (pg.8).

### Our Four Lobes Help Us to Function



### Diagram of Four Lobes



# The Laboring Lobes: The "Jobs" of the Lobes

Each of our lobes has many "jobs". Below are a few of the jobs each lobe does.

**Frontal Lobe -** One of the four major subdivisions of the cerebral cortex (the outer layer of the cerebrum) located in the front of the cerebrum. It has a role in controlling the sense of smell, movement, emotions, and thinking and memory.

**Occipital Lobe -** One of the four major subdivisions of the cerebral cortex (the outer layer of the cerebrum) located in the rear of the cerebrum. It plays a major role in visual perception (sight).

**Parietal Lobe -** One of the four major subdivisions of the cerebral cortex (the outer layer of the cerebrum) located in the top middle of the cortex. It plays a role in the perception of touch, taste, and in language.

**Temporal Lobe -** One of the four major subdivisions of the cerebral cortex (the outer layer of the cerebrum) located in the bottom middle of the cortex. It functions in auditory perception (hearing) and speech.

#### Now that you have read about each lobe:

- 1. Underline the words, on this page, that indicate activities that involve **only your senses**. These are some of the "jobs" the lobes do.
- 2. Draw the sense organ that is involved with each selected job that you underlined on the correct lobe on "Our Laboring Lobes" worksheet.
- 3. Be prepared to share your brain diagram with the class!

### Our Laboring Lobes

