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**Name this file using the following format:**

**LastnameFirstname\_Section\_AssignmentName**

For example: SmithJohn\_A54\_AuditorySystem

**PsychSim Online: Hemispheric Specialization**

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** **Student ID: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Course/Section: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** **Instructor: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

This activity explores some of what researchers have learned about the special abilities of the left and right sides of the brain. You will learn how information is transmitted to these two hemispheres and about the unique function of each.

Watch the following videos:

* The left vs. right hemisphere: <https://www.youtube.com/watch?v=FsM1IQ9d2pw>
* Split-brain patient Joe (part 1): <https://www.youtube.com/watch?v=zx53Zj7EKQE>
* Split-brain patient Joe (part 2): <https://www.youtube.com/watch?v=u9u6cQYcOHw>

**Hemispheric Connections**

1. What is the name of the band of fibers connecting the left and right hemispheres of the brain? What is its function?
2. Briefly explain split-brain research **in your own words**.
3. What does split-brain research suggest about the language abilities of the two hemispheres?

1. Why can people with an intact corpus collosum name objects placed in either hand or easily read words flashed to either visual field?
2. Identify which hemisphere (left or right) would primarily be used for each of the following in a typical brain.

|  |  |
| --- | --- |
| **Example** | **Hemisphere** |
| A touch on the left hand |  |
| Facial recognition |  |
| Interpreting spoken language |  |
| Light enters the *whole* left eye |  |
| Light enters the left half of the right eye |  |
| Nonverbal memory |  |
| Reading |  |
| Sound waves entering the right ear |  |
| Spatial reasoning |  |
| Verbal memory |  |
| Word recognition |  |

Charlie had an operation that split their brain (i.e., their corpus collosum was cut), and consented to have some tests run to further explore the functionality of the brain when the hemispheres are separated. For each task, indicate how Charlie would respond.

1. The word “bird” is flashed in the *right* visual field and they are asked to indicate what the word was.
2. The word “hat” is flashed in the *left* visual field and they are asked to indicate what the word was.
3. While blindfolded, Charlie is asked to identify a fork that is placed in their *right* hand.
4. While blindfolded, Charlie is asked to identify a spoon that is placed in their *left* hand.
5. A picture of fruit that is in the shape of a face is flashed in the *left* visual field. What does Charlie see?
6. The same picture of fruit in the shape of a face is flashed in the *right* visual field. What does Charlie see?