

Human Cognition

Investigation 1 KEY

Name: _____ Date: _____

Please use the back of this quiz if you need additional space.

1. What is brain anatomy? *In your answer, describe what information studying brain structure can provide.*

Brain anatomy is the study of the physical structure and organization of the brain, including its regions and how they are arranged. (Accept answers that reference structure, organization, parts, or physical features of the brain.)

2. During the lab, you examined a sheep brain and used a brain cap. What kind of information do these activities help you learn about the brain?

These activities help students learn about the physical structure, organization, and relative location of brain regions, but not how thinking or information processing occurs. (Look for recognition of structure rather than function or processing.)

3. Why is studying brain structure important, even though it does not fully explain cognition? *Explain how structure can support—but not completely explain—brain function.*

Studying brain structure is important because it shows how the brain is organized and provides clues about how different regions may contribute to function. However, structure alone does not explain how information is processed or how cognition occurs. (Accept answers that distinguish between support/constraints and explanation.)

4. Which statement best describes the limits of using brain anatomy alone to explain cognition? *(circle one)*

- A. Brain anatomy fully explains how information is processed and how thinking occurs
- B. Brain anatomy explains cognition only if all brain regions are labeled correctly
-  C. Brain anatomy provides important structural information but does not explain how information is processed
- D. Brain anatomy is unrelated to cognition

5. Based on your lab experience, does your understanding of brain anatomy explain how information is processed and how cognition actually works? *Explain your answer.*

No. The lab experience shows that the brain has organized structures, but it does not explain how information flows, is processed, or how cognition occurs. Understanding cognition requires studying processes and interactions, not anatomy alone. (Look for recognition of limits, unanswered questions, and the need for further investigation.)