

Name \_\_\_\_\_ Class \_\_\_\_\_ Date \_\_\_\_\_

# Neurobiology Lab Notebook- Cocaine Study

1. What are the two phases of motivated behavior?

a)

b)

2. What is known about the effects of cocaine on dopamine levels in the brain?

3. What is the hypothesis being tested in this experiment?

4. If the hypothesis is true, then what should you observe?

5. What is the name of the method used to measure dopamine levels?

6. What is the formula for computing how much anesthesia to administer?

7. Where will you inject the rat with the anesthesia?

### Prep Area Questions

---

8. Based on the weight of the rat you selected, how much anesthesia should you extract?

### Surgery Area

---

9. What is the function of the canula?

10. What is the name of the device that allows us to implant electrodes in precise locations?

11. Which electrode measures dopamine levels?

## Experiment Area

---

12. What is the function of the telemetry pack?

13. What behavior are you looking for when the rat is seeking cocaine?

14. What behavior(s) do you observe when the rat is not seeking cocaine?

15. Do you observe any change in dopamine levels that is consistent with what is known about cocaine being consumed? If so, describe those changes.

16. Do you observe any changes in dopamine levels while the rat is engaged in cocaine seeking behavior? If so, describe those changes.

17. Do the results of this experiment support the hypothesis? Explain why or why not.