Name _____ Period _____ Date _____
Model Organisms Biotechnology II & III

Effects of Alcohol on *C. elegans*

Pre- Lab Questions

Complete the following using the background information provided in your lab write-up.

1. Alcohol is classified as a _____ which works on your _____ _____ _____

2. At low doses, it can have stimulating effects such as: _____ , _____ _____, and _____.

3. As the dose increases, alcohol _____ the brain and leads to problems with _____, _____, _____ and _____

4. At higher levels,_____, _____, and _____ can occur.

5. How alcohol affects you depends on seven things. Name three.
   _____
   _____
   _____

6. Explain what BAC is.

7. What is the BAC Level that usually induces a coma? _____

8. What is the legal limit of the BAC measure for Rhode Island? _____

9. Explain how alcohol is absorbed and distributed in the body - be Specific.

10. Explain how your body metabolizes alcohol in the body. Be specific.

11. Name the two enzymes involved in the process you described above.

_____ and _____

12. List three characteristics of *C. elegans*. _____ , _____ and _____

13. Explain the development of *C. elegans*.

14. Explain the life cycle of *C. elegans*.

15. *C. elegans* is a model organism for the study of: _____ , _____, _____, and _____

16. Describe the cellular characteristics of *C.elegans*.

17. What do toxicology studies investigate? _____

_____

17. Explain why *C. elegans* is a good model for the study of toxicology.

18. What is DNA Polymorphisms?

19. Explain the link between genetics and how alcohol is metabolized.

21. What is the ADH3 gene responsible for?

20. Name and describe one polymorphism in the ADH3 gene.

21. Does everyone react to alcohol in the same way? Explain why or why not.