Questions for Development Lab

1. For each organism observed, identify adaptations that help to ensure fertilization and/or survival of the offspring.

2. Explain the difference between holoblastic and meroblastic cleavage.

3. Compare and contrast a blastopore and a primitive streak.

4. What structures do each of the 3 germ layers develop into in an adult?

5. What is yolk? How does it influence cleavage?

6. State the function/significace of each of the following structures, and state during which stage of development (and in which organism) they appear: primitive streak, blastomeres, gray crescent, epiblast, archenteron, germinal disc, and chorion.

7. Explain the differences between a zygote, a blastula, and a gastrula.

8. Explain the process of gastrulation in each of the organisms observed. What are the major differences between them?

9. Sketch a frog zygote and label the animal and vegetal poles, and the gray crescent. Label where yolk is found, and explain how these divisions will affect the axes of develpment of the adult.

10. Explain the differnce between a telolecithal and a isolecithal egg.