Structure of the Brain
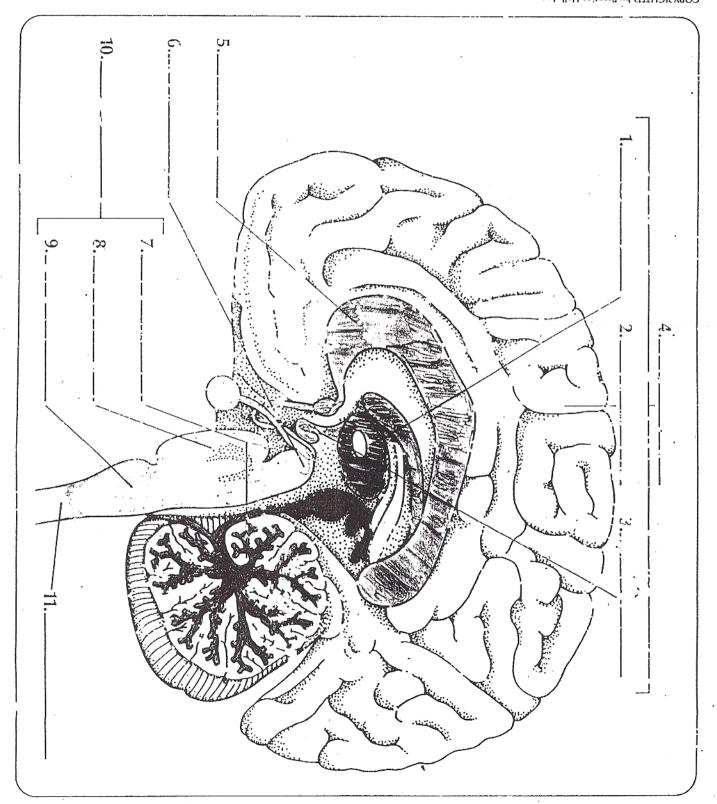
LIFE'S GREATEST MIRACLE
- Guide Questions to answer as you view "Life's Greatest Miracle." (This video was produced in 2001.)
- (This video can also be viewed online at http://www.pbs.org/wgbh/nova/miracle/program.html)
- Please submit the answers to this on 1 whole sheet of pad paper **Feb 9, T** (Individual work).

Chapter 1. Passing On Your DNA

1. Why is sexual reproduction more advantageous than cloning?

Chapter 2. The Egg's Journey

2. Describe the path the egg takes after being released from the ovary.
3. The video states that an egg will survive only a few hours if not fertilized. More recent information suggests that an egg will survive at least 24 hours and perhaps as long as 48 hours if not fertilized. How does that fact influence the most fertile time when couples are attempting to avoid pregnancy using the rhythm method?

Chapter 3. The Sperm's Journey

4. What kind of obstaces will a sperm encounter once it enters the female?
5. Where in the female reproductive tract does fertilization of the egg occur?

Chapter 4. The First Two Weeks

6. Why would more than 50 percent of all fertilized eggs not survive? What kind of problems could a fertilized egg encounter?
7. How do identical twins form?
8. How does the blastocyst prevent the mother's immune system from destroying the developing embryo?

Chapter 5. The Embryo Takes Shape

9. Describe the three cell layers that develop and include what parts of the body those cell layers will become.
10. How are genes turned on?

Chapter 6. Messages in the Genes

11. Where is the SRY gene found? What does it do? When does it function?
12. How do fingers (and toes) become separated from each other in the developing fetus?

Chapter 7. Feeding the Growing Fetus

13. What is a placenta? What is the function of its villi?
14. Do maternal and fetal blood mix?

Chapter 8. The Third Trimester

15. Why is human childbirth so much more dangerous than the births of other animals?