

Name _____

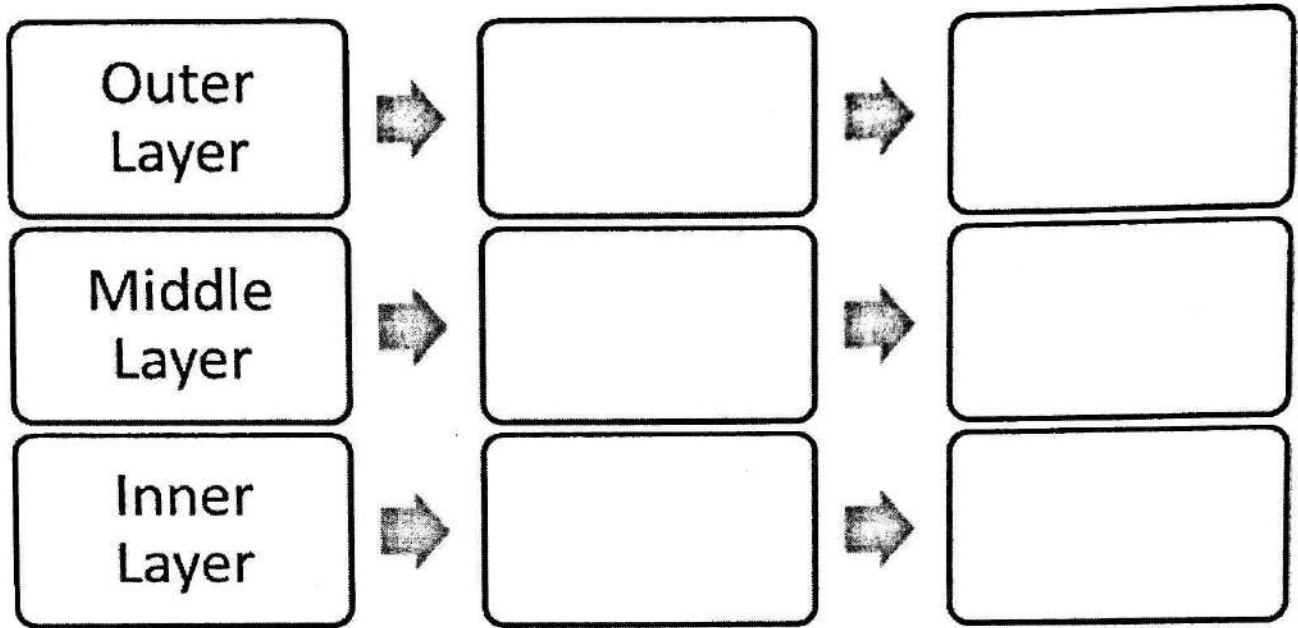
CP Biology

Stem Cells: A Web Quest

Directions: Go to the following website: <http://learn.genetics.utah.edu>. Scroll down & click on "Stem Cells." Click on "The Nature of Stem Cells."

1. What is the difference between differentiated cells and stem cells?
2. What can stem cells give rise to?
3. When has differentiation begun?
4. One week after fertilization what is the embryo referred to as?
5. What does the inner cell mass form?

6. What are the names of the 3 layers of cells and what does each form?



7. How many different cell types are in a human body?

8. What are somatic stem cells and why are they important?

9. What is the major difference between embryonic and somatic stem cells?

10. Among what tissues are somatic stem cells found?

Return to the previous page. Click on "Stem Cell Quick Reference."

11. Complete the table below IN YOUR OWN WORDS!

Type of Stem Cell	Potential as Therapy	Special Considerations	Ethical Considerations
Somatic Stem Cells			
Embryonic Stem Cells			
STAP Cells			
Induced Pluripotent Stem Cells			
Therapeutic Cloning			

Return to the previous page. Click on "Unlocking Stem Cell Potential."

12. What is regenerative medicine?

13. Explain how some antidepressants work.

14. What are scientists trying to do with stem cells in order to improve gene therapy?
What success have scientists had with this type of gene therapy?

15. What is similar about stem cells and cancerous cells?

Return to the previous page. Click on "The Stem Cell Debate: Is It Over?"

16. Choose one of the "Ethical Questions" and answer it!