

1. Describe the three primary germ layers that form during embryonic development and the structures that arise from each layer.
2. Explain the process by which the neural tube is formed from the neural plate. What serious birth defect can occur if this process is disrupted?
3. Distinguish between symmetrical and asymmetrical cell division of neural stem cells in the ventricular zone, and explain the significance of this shift in cell division.
4. Describe two key mechanisms by which neurons migrate to their final destinations in the developing brain.
5. What is a growth cone and how does it help an axon find its appropriate postsynaptic target cell?

6. Why is apoptosis considered a normal and necessary occurrence during early development?

7. What does "Cells that fire together, wire together" mean?

8. What are the major changes that occur in the brain after birth?