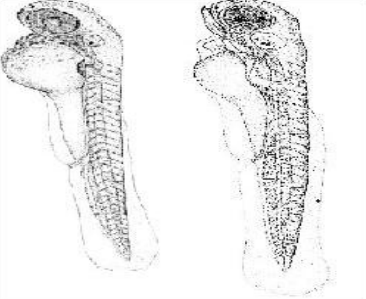
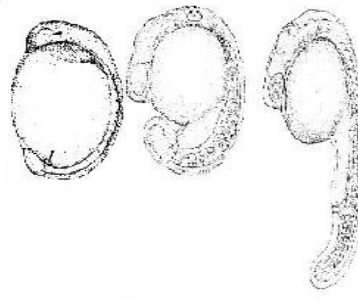
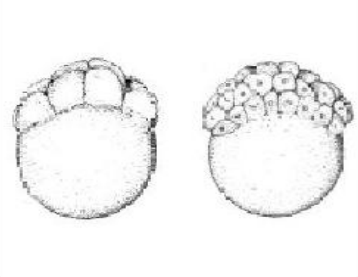
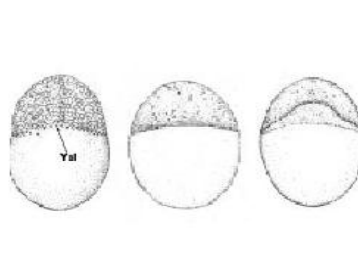
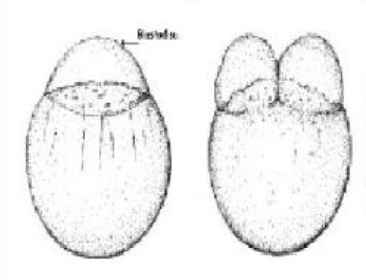
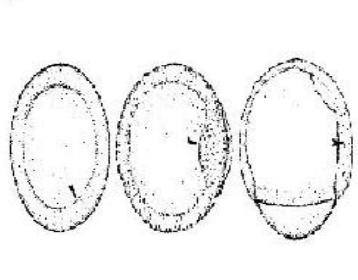
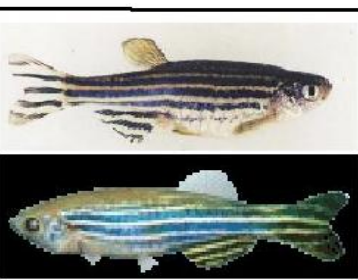
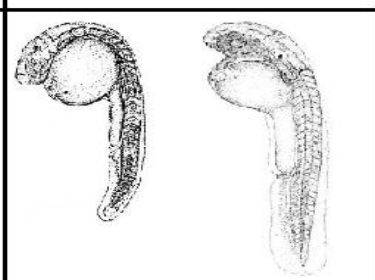
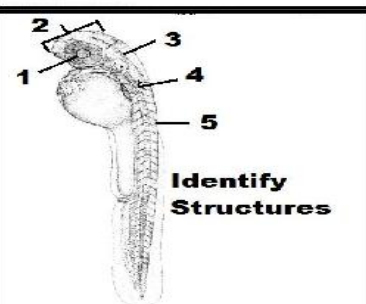
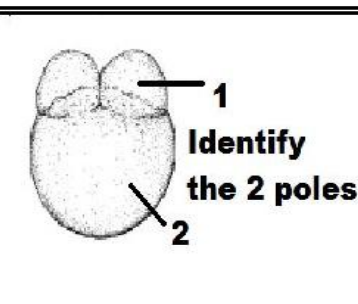


Developmental Biology Website Final Draft

Matching Game (index: Games and Tutorials; Title Matching Game of Zebrafish Staging)

This memory based game was created in order to improve the understanding of Zebrafish development for instructors and students alike. This grid is intended to be printed out, and cut along the dividing lines, once you have done this mix up the pieces. Then lay them face down in a square-like orientation, and match the picture of each stage/structure with the correct description.

	<p>Gastrula Period (5.3-10h) Germ ring (5.7h), Shield (6h), 75% Epiboly (8h). Morphogenetic movements of involution, convergence, and extension form the epiblast, hypoblast, and embryonic axis through the end of epiboly.</p>		<p>Cleavage Period (0.75-2.2h) The first 6 cleavages occur. The cells, or blastomeres, divide synchronously at about 15 minute intervals.</p>
<p>Sexually mature female (top) and male (bottom). Females tend to be larger and rounder with a silver-blue streak Males are somewhat yellowish and tend to be more active.</p>			<p>Pharyngula Period (24-48h) Prim-6 (25h), High-pec (42h) Phylotypic-stage embryo; body axis straightens from its early curvature about the yolk sac; circulation, pigmentation, and fins begin development.</p>
	<p>Blastula Period (2.25-5.25h) 1k-cell (3h), Sphere (4h), dome (4.3h) Occurs at the 10th cleavage. Cell membranes do not form between cells of the bottom, and develops into the "yolk syncytial layer (YSL)" of the yolk cell. Midway through this stage, cell divisions are asynchronous.</p>		<p>Segmentation Period (10-24h) 6-somite (12h), 14-somite (16h), 26-somite (22h) Somites, pharyngeal arch primordia, and neuromeres develop; primary organogenesis; earliest movements; the tail appears.</p>
<p>Zygote Period (0-.75h) Cytoplasm streams toward animal pole to form the blastodisc.</p>	<p>Hatching Period (48-72 h) Long-pec (48h), Protruding mouth (72h) Completion of organogenesis; cartilage development in head and pectoral fin; hatching followed by swim bladder inflation; food-seeking and active avoidance behaviors.</p>		
 <p>Identify Structures</p>	<p>1- Eye 2- Brain 3- Neural Tube 4- Notochord 5- Somites</p>	 <p>Identify the 2 poles</p>	<p>1- Animal Pole 2- Vegetal Pole</p>