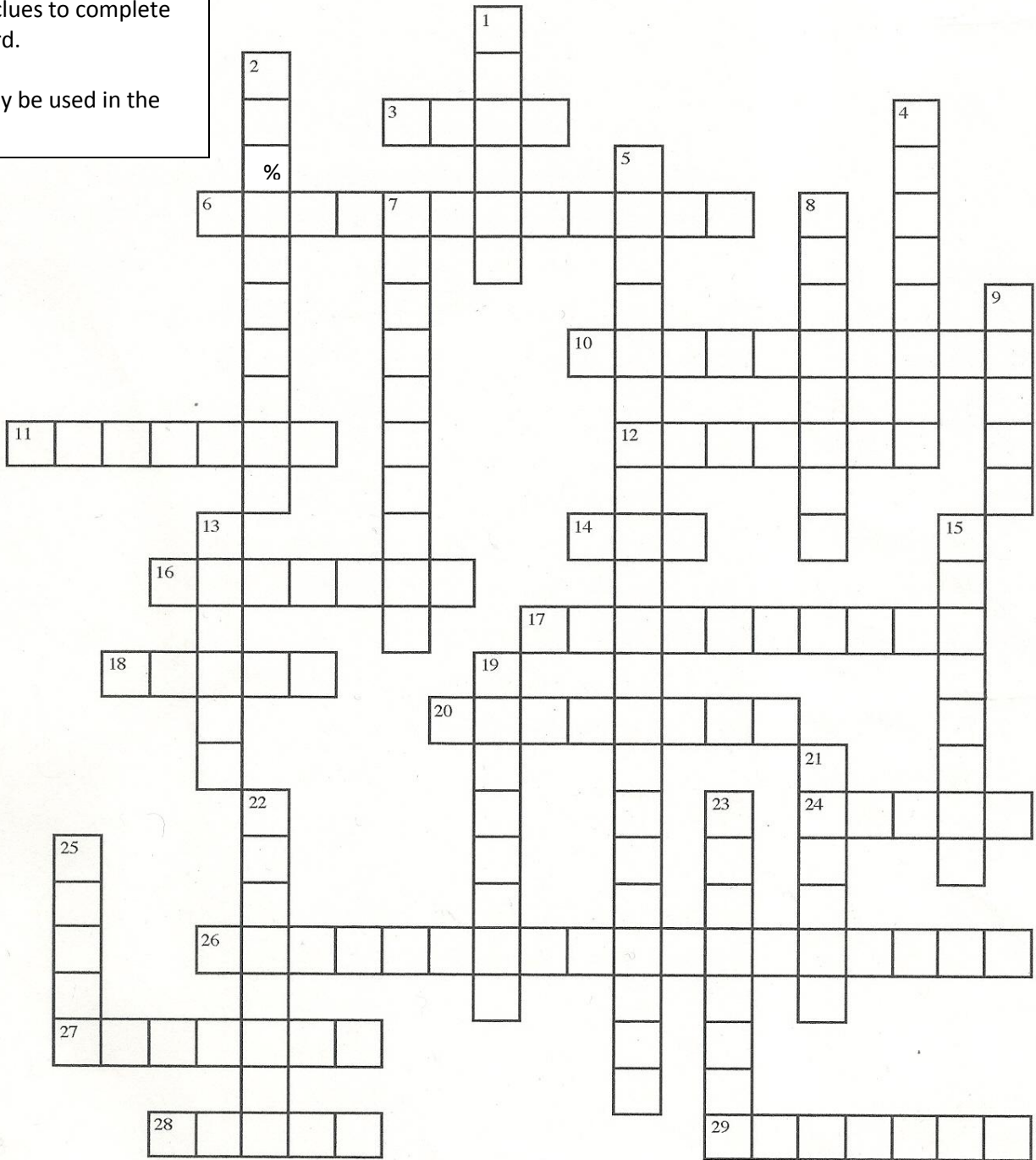


Directions:

Answer the clues to complete the crossword.

Numbers may be used in the answers.

Staging zebrafish embryos

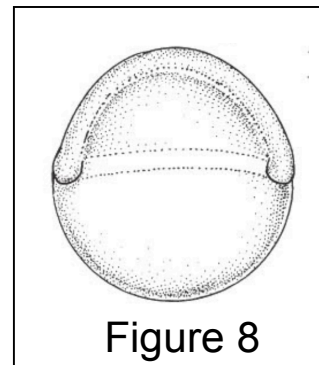
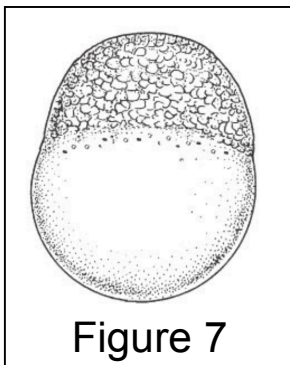
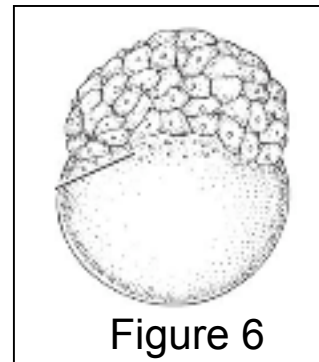
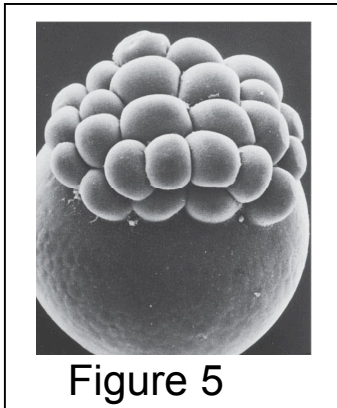
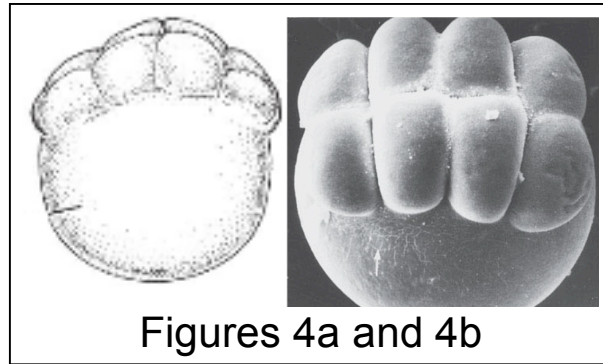
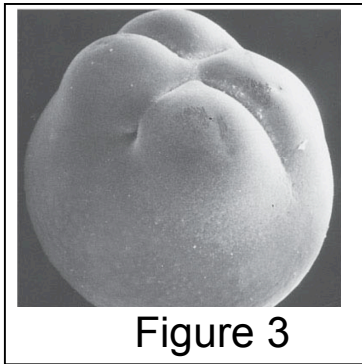
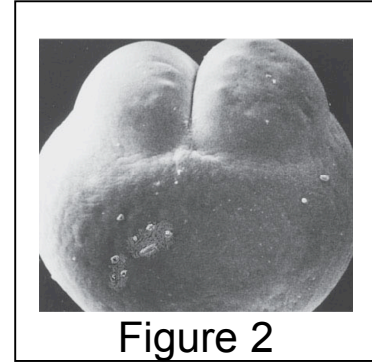
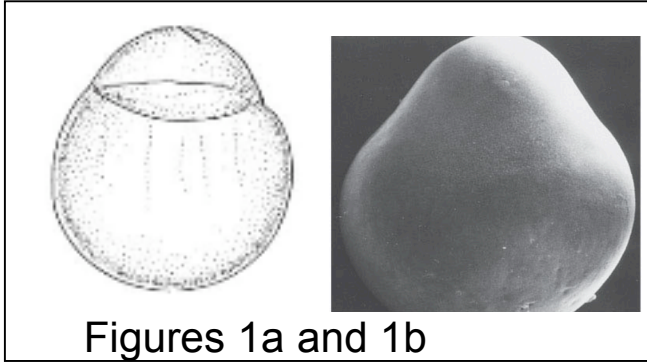


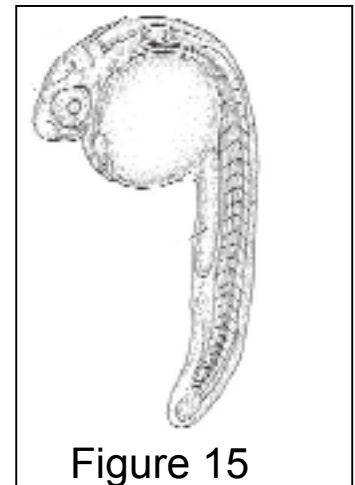
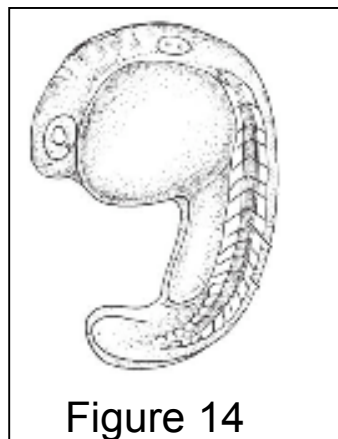
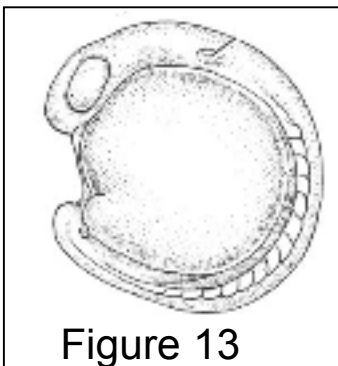
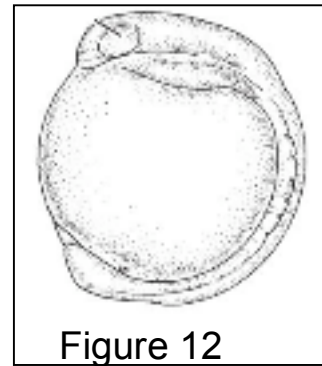
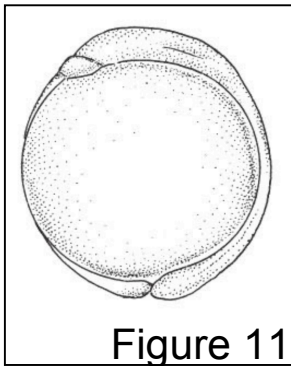
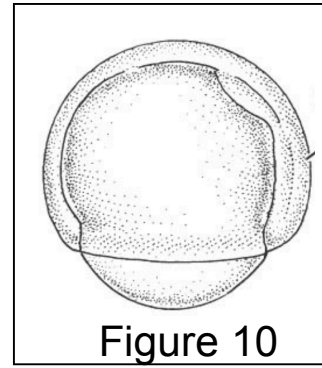
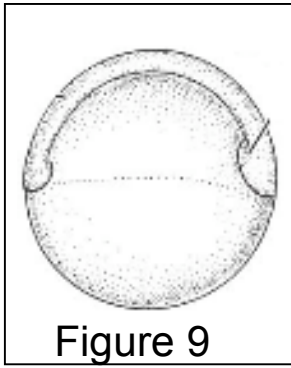
ACROSS

- 3** The stage shown in figure 7
- 6** During this period, the embryo shows its earliest movements, and primary organogenesis begins
- 10** The area of the animal pole before any cell divisions
- 11** The stage shown in figure 6
- 12** The process of determining the point a zebrafish is at in its development
- 14** The stage shown in figure 11
- 16** The thin egg "shell" that can easily be removed without damaging the embryo
- 17** Also called the phylotypic-stage embryo, this period is characterized by development of circulation, pigmentation, and the beginning of fins
- 18** The stage shown in figures 1a and 1b
- 20** Involution begins during this period of development
- 24** The stage shown in figure 2
- 26** A layer of nuclei between the yolk and the embryo, formed from cells that have fused with the yolk
- 27** The stage shown in figure 12
- 28** The stage shown in figures 4a and 4b
- 29** A type of cell movement that is also part of many names of stages in which the cells surround the yolk

DOWN

- 1** The cytoplasm streams towards the animal pole to form the blastodisc during this period of development
- 2** The stage shown in figure 10
- 4** The stage shown in figure 8
- 5** The point of development at which the embryo begins to transcribe its own DNA
- 7** A tool made of fishing line and capillary tubes used for orienting and pushing around embryos
- 8** The stage shown in figure 14
- 9** The stage shown in figure 3
- 13** The stage shown in figure 9
- 15** This is the period during which the yolk syncytial layer forms
- 19** During this stage, completion of rapid morphogenesis of primary organ systems and cartilage in fins occurs
- 21** The stage shown in figure 5
- 22** The stage shown in figure 13
- 23** During this period, the cells of the embryo divide synchronously at about 15 minute intervals
- 25** The stage shown in figure 15





Figures taken from Gilbert, S. 2006 "Developmental Biology"