Embryo Clay Model Table Worksheet

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The following worksheet will help you make your clay models and will require you to answer questions to help you see that you understand development in relationship to the model. Refer to Making Embryo Models MS PowerPoint [Attachment 5 or http://www.classtech2000.com/biolvhs/embryo/embryo.htm.] and the diagrams of the Web page http://biol1.bio.nagoya-u.ac.jp:8000/stage-map.html from Activity 2.

Build the following embryo clay model and answer the following questions:

Stage and Directions	**Labeled Diagram**
1) Zygote Stage: A) Use an orange and a piece of clay the size of a golf ball make a zygote attached to the yolk. B) Make a label diagram of your model. Label the zygote and the yolk.	
2) 2-Cell Stage: A) Divide the clay of the zygote into 2 equal spheres, cells. B) Make a labeled diagram. Label cells and yolk.	
3) 4-Cell Stage: A) Divide the clay of each of the 2 cells into two equal spheres, cells. B) Make a labeled diagram. Label the cells and yolk.	
4) 8-Cell Stage A) Divide the clay of each of the 4 cells into equal spheres, cells. B) Make a labeled diagram. Label the cells and yolk .	
5) 16-Cell Stage A) Divide the clay of each of the 4 cells into equal spheres, cells. B) Make a labeled diagram. Label the cells and yolk.	
6) 32-Cell Stage A) Divide the clay of each of the 16 cells not equal spheres, cells. Note that at this stage there are two layers of cells. B) Make a labeled diagram. Label the cells and the yolk.	
7) Make the Yolk Sac A) Carefully smash the 32 cells into a cap around the top of the orange to form the yolk sac and then pinch a ridge across the center for the embryo. B) Label the embryo, the yolk sac and yolk.	

Attachment #6