Glenbard District 87

Course Title: Biology

Unit: Meiosis/Mitosis **Unit Title**:

Stage 1 – Desired Results	
Established Goal(s): *What relevant goals (e.g. Content standards, course or program objectives, learning outcomes, etc.) will this address?* HS-LS3-2. Make and defend a claim based on evidence that inheritable genetic variations may result from: (1) new genetic combinations through meiosis, (2) viable errors occurring during replication, and/or (3) mutations caused by environmental factors. HS-LS1-4. Use a model to illustrate the role of cellular division (mitosis) and differentiation in producing and maintaining complex organisms.	
Understanding(s): *Students will understand that…* Cells divide by two processes, mitosis and meiosis.	**Essential Question(s):** *What provocative questions will foster inquiry, understanding, and transfer of learning?* How do cells multiply? How does cell division allow for the passing on of genetic information?
Knowledge: *Students will know…* 1. In sexual reproduction, chromosomes can sometimes swap sections during meiosis 2. Errors can occur during replication of DNA, resulting in mutations 3. Multicellular organisms grow and repair via mitosis 4. Unicellular organisms reproduce by mitosis 5. Meiosis produces gametes with a unique DNA sequence 6. Explain how cytokinesis differs in plant and animal cells.	**Skills :** *Students will be able to …* 1. Compare and contrast meiosis and mitosis 2. Create models distinguishing these processes 3. Explain the necessity of mitosis and meiosis