

Name_____ Period_____ Lab#_____ Date_____

Mitosis vs Meiosis Lab

Use the beads and magnets to simulate the events of Mitosis and Meiosis. The students should draw each stage of both processes. For meiosis, students should include all the events in M I and M 2. After completing these events, draw the main chromosomal mutations, including non-disjunction events.

Attach the sketches to this page. Use this as the cover.

Questions:

1. What role does mitosis play in unicellular vs multicellular sexually reproducing organisms?
2. Compare 3 major outcomes between mitosis and meiosis
3. What are the sources of genetic variation in meiosis?
4. What advantage do you think genetic variation would have for a species?
5. Explain how a disorder like Down's Syndrome may arise (be sure not to define what it is and do suggest a mechanism). Use a diagram in addition to the explanation.
6. Why is meiosis a necessary event for sexually reproducing species?