**Meiosis - Internet Lesson**

Name**\_\_\_\_\_\_\_\_\_\_\_\_­­­­­­­­­­­­­­­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

In this investigation, you will view sites that illustrate the process of meiosis. For each site answer the questions associated. These sites are posted on the Google Classroom.

**Site 1 - Sumanas Inc., Animation of Meiosis**

<http://www.sumanasinc.com/> ---> go to animation gallery --> go to general biology --> Meiosis

1. Read the introduction. Explain how sexual reproduction results in unique offspring.

**(Click the "STEP THROUGH" button)**  
2. DNA replication takes place when? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
3. Meiosis consists of two cell divisions: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ & \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
4. Centrosomes (aka centrioles) migrate to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
5. The pairing of homologous chromosomes is called: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
6. Crossing over points are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
7. What happens in metaphase I \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
8. What happens during anaphase I \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
9. What is interkinesis? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
10. In prophase II, each cells is [ diploid / haploid ] (circle one)  
11. In metaphase II, chromosomes line up in [ single | double ] file. (circle one)  
12. What happens during telophase II? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
**(Click to Conclusion).**

13. Each of the four daughter cells produced by meiosis is [ identical / unique ] (circle one)

**(Click to Quiz)**

14. With respect to meiosis, when does DNA replication occur? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
15. When does crossing over occur? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
16. During which phase do chromosomes line up along the equator? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
17. During which phase does the nuclear membrane form around the chromosomes? \_\_\_\_\_\_\_\_\_\_\_\_\_

**Site 2: PBS: Mitosis vs. Meiosis**  
<http://www.pbs.org/wgbh/nova/baby/>--> Click "How Cells Divide" -->"Mitosis vs. Meiosis"

18. After viewing the animation, fill out the chart below, by placing a check in the box or boxes to indicate which the event occurs in (some events might have checks for both mitosis and meiosis).

|  |  |  |
| --- | --- | --- |
|  | Meiosis | Mitosis |
| Two cell divisions |  |  |
| Centrioles appear |  |  |
| Chromosomes pair up |  |  |
| Spindle fibers form |  |  |
| Two cell divisions |  |  |
| Cytokinesis |  |  |
| Four daughter cells |  |  |