**Meiosis In-Class Handout Name:**

Complete the table as you progress through today’s activity:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | n | ploidy | # of chromosomes per cell | # of DNA molecules per cell | # of chromatids per cell |
| G1 phase |  |  |  |  |  |
| after S phase |  |  |  |  |  |
| after meiosis I |  |  |  |  |  |
| after meiosis II |  |  |  |  |  |

1. Draw what your cell looks like at the beginning of G1:

2. Draw what your cell looks like after DNA synthesis occurred:

3. Draw what your cell looks like in late prophase II:

4. Draw what your cell looks like after crossing over occurred:

5. Draw what your cell looks like just before metaphase I:

6. Draw what your cell looks like after meiosis I is complete:

7. Draw what your cell looks like just before metaphase II:

8. Draw what your cell looks like after meiosis I is complete:

9. How will your gametes become diploid cells again?

10. Discuss how meiosis has led to genetic diversity in the population of this class.