

## Meiosis Modeling

1. Take a set of fastened cards. As in the Mitosis Modeling Activity, you should have eight cards in total.
  - a) Record the original genotype of the parent cell.
  
2. Copy the letters on each card onto the blank one fastened to it.
  - b) What phase is being represented?
  
3. Line up all the cards in the middle of the table in homologous pairs.
  - c) What phase is being represented?
  
4. Each partner now takes one half of each pair. Note that the sister chromatids remain attached.
  - d) What phase is being represented?
  - e) What is being represented by the fact that you and your partner each take either of the pair?
  
5. Each of you must now, separately, line up the cards again as sister chromatids.
  - f) What phase is being represented?
  
6. Each partner now separates each pair of sister chromatids by pulling the cards apart. You both now have two piles of single cards.
  - g) What phase is being represented?
  - h) How do your two sets compare to one another?
  - i) How do your two sets compare to your partner's?
  - j) How do your partner's two sets compare to one another?
  - k) What was the original diploid number of the mother cell?
  - l) What is the final diploid number of the daughter cells?
  - m) With how many mother cells did you start out?
  - n) How many daughter cells did we create? What are these cells called?
  - o) If two daughter cells then come together, what will be the chromosome number of the resulting cell? What would that process represent?
  - p) How many different types of cells could have been produced?