Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Snurfle Meiosis**

* **Click on Snurfle Meiosis App**
* **Click on Continue**
* **Click on Continue**
* **Click on Meiosis and Genetics Interactive and follow the instructions as you answer the questions.**
1. When does interphase occur? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. What occurs during interphase? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Uncoiled stringy DNA is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
4. Human cells have \_\_\_\_\_\_\_\_\_\_\_\_\_ pieces of chromatin.
5. Half of your DNA comes from your \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and half from your \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
6. DNA has \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that determine traits of an organism.
7. Different forms of a gene are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
8. List the 2 alleles for fur color in Snurfles & the letter that represents those alleles? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
9. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is when DNA copies itself and it occurs during \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
10. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are made during meiosis. Examples of gametes are \_\_\_\_\_\_\_\_\_ & \_\_\_\_\_\_\_\_\_\_\_\_.
11. Meiosis occurs in \_\_\_\_\_ divisions; Meiosis \_\_\_\_ and Meiosis \_\_\_\_\_\_\_
12. List the phases for Meiosis I. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_
13. List the phases for Meiosis II. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_
14. During prophase I the chromosomes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and become \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
15. Chromosomes that are the same size and have the same genes are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_
16. Each half of a replicated chromosome is called a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
17. Sister chromatids of a chromosome are identical \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
18. The nucleus \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_during prophase.
19. Homologous chromosomes pair up during prophase I to form a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
20. During metaphase I the tetrads line up in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the cell.
21. The homologous chromosomes split up and move toward the opposite ends of the cell during \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
22. \_\_\_\_\_\_ independent cells begin to form during \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
23. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the division of the cytoplasm to make two new cells.
24. The 2 new cells that are formed from Meiosis I are \_\_\_\_\_\_\_\_\_\_\_\_\_ because they contain half of the chromosome of the original cell that started meiosis.
25. At the start of Meiosis I you had 1 \_\_\_\_\_\_\_\_\_\_\_\_ cell.
26. Meiosis II must take place because each of our new cells still has too much \_\_\_\_\_\_\_\_\_\_\_\_\_\_.
27. ****Draw the chromosomes in Meiosis I. **Label the cells as diploid or haploid.**
28. The nucleus \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ during prophase II.
29. In Metaphase II the chromosomes line up single file down the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the cell.
30. In \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the sister chromatids split up.
31. In Telophase II, \_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ daughter cells are being formed.
32. They are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
33. Each newly formed cell will form a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ around the chromosomes.
34. The chromosomes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to form \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
35. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ occurs at the same time at Telophase II.
36. At the end of Meiosis II you have made \_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_ gametes (sex cells).
37. Draw and label the Meiosis Summary.



1. If the gametes are produced by a female they are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. If the gametes are produced by a male they are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
3. The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ square is a tool that is used to predict possible offspring of a genetic cross.
4. The letters on a Punnett square actually represent possible \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
5. When sperm and egg join it is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ which is a fertilized egg.
6. Complete the Punnett square to the right.
7. A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the genetic make-up of an organism.
8. \_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_ are examples of genotypes.
9. A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the characteristic or appearance of the organism.
10. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ & \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are examples of phenotypes.
11. Dominant alleles are represented by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ letters.
12. Recessive alleles are represented by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ letters.
13. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ alleles will show in your phenotype even if it has one copy.
14. For recessive traits to show in the phenotype, the snurfle will need \_\_\_\_ copies of the gene.
15. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ means an organism has 2 copies of the same allele in its genotype (GG,gg)
16. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ means an organism has 2 different alleles in its genotype (Gg, Tt, Rr)
* Click on the chromosome Quandry and follow the directions
* Click on the Meiosis and Genetics Quiz! Answer the questions
* Click on the Score Sheet and record your scores in the table below.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Overall Score** | **Meiosis** | **Genetics** | **Chromosome Quandary** | **Quiz** |
|  |  |  |  |  |