

1. When a cell becomes too large, a process is initiated to divide it into two _____ cells.
2. _____ is the first stage of cell division, and involves the division of the _____.
3. In the second stage, _____, the cytoplasm is divided.
4. The cell spends most of its time in _____. made up the G_1 , S and G_2 phases.
5. During the G_1 phase, the cell _____. In S phase, or _____ phase, the DNA gets _____. In the G_2 phase, the cell synthesizes new _____ and prepares for cytokinesis.
6. Except for sex cells, human cells contain _____ chromosomes. Each chromosome that comes from the mother has a _____ chromosome from the father.
7. After S phase when chromosomes get copied, each chromosome is then made up of two identical sister _____, which are attached in the middle at the _____.
8. During the first phase of mitosis, _____, the chromosomes condense and become visible.
9. In the next phase, _____, the chromosomes line up across the centre of the cell.
10. During _____, the chromosomes get pulled away from each other toward opposite ends of the cell.
11. In the final phase of mitosis, _____, the nuclear envelope reforms around each cluster of chromosomes.
12. _____ is the division of the cytoplasm.
13. Proteins called _____ regulate the cell cycle.
14. _____ cells do not possess, or do not respond to cell regulating proteins.
15. Many cancers have been linked to a defect in _____.
16. In the reproductive organs, cells undergo _____, during which four haploid daughter cells are produced.
17. During meiosis, small sections of chromosomes can undergo _____ which dramatically increases the number of genetic combinations that are possible.
18. Several chromosomal disorders can occur as a result of _____ during meiosis. Cells end up with fewer or extra chromosomes.
19. In _____ syndrome, a person receives an extra copy of chromosome number _____.
20. If a person receives only one X chromosome and no Y chromosome, they will develop _____ syndrome.
21. A person with _____ syndrome is biologically male, but receives an extra _____ chromosome.
22. A _____ is a picture that provides an organized view of all the chromosomes in a cell.
23. Cells that contain both sets of homologous chromosomes are _____.
24. The gametes of sexually reproducing organisms are considered to be _____ because they only have a single set of chromosomes.

1. _____ is known as the "father of genetics."
2. He studied pea plants and determined that _____ pea plants always produced offspring identical to themselves when allowed to self-pollinate.
3. In order to join male and female reproductive cells from different plants, Mendel used the process of _____.
4. A _____ is a specific characteristic, such as seed color or plant height.
5. The offspring of crosses between parents with different traits are called _____.
6. Mendel concluded that _____ are responsible for passing information from one generation to the next.
7. Mendel studied traits that were the result of two different _____, which are different forms of the same gene.
8. The principle of dominance states that some alleles are dominant, and others _____.
9. Mendel also discovered that alleles for different genes usually _____, or assort independently.
10. When Mendel crossed true-breeding tall plants with short plants, he discovered that all the offspring in the F1 generation were _____.
11. In the F2 generation, the _____ pea plants reappeared, making up one-quarter of the offspring.
12. An organism's genetic makeup, for example "Aa", is called its _____.
13. The physical characteristics that are observed or detected are the organism's _____; for example, blue eyes.
14. If an organism has two of the same allele, or what Mendel called "true-breeding," then they are _____.
15. An organism with two different alleles for the same gene, or a "hybrid," is called _____ for that trait.
16. The gene combinations that might result from a genetic cross can be determined by drawing a diagram called a _____.
17. The principles of _____ can be used to predict the outcome of genetic crosses.
18. In cases of _____, the heterozygous phenotype is somewhere in between, or a "blend" of the two homozygous phenotypes.
19. When both alleles contribute the phenotype, it is known as _____.
20. Many genes have _____, which means there are more than just two alleles for the gene.
21. Many traits are produced by the interaction of several genes. These are known as _____ traits.
22. A _____ chart can be used to study the genetic relationships among members of a family.
23. Some disorders are considered to be _____ because they occur on either the X or the Y chromosome.
24. Some X-linked disorders include: _____, _____, and _____.
25. Males only receive one X chromosome, and therefore all X-linked disorders are expressed in males, even if they are _____.