**Mitosis, Meiosis, Asexual, and Sexual Reproduction Study Guide**

1. In asexual reproduction, the genetic information in parent cells is copied exactly and passed to daughter cells
2. The end product of mitosis is two cells, whereas the end product of meiosis is four cells
3. Mitosis produces cells used for growth and repair, while meiosis produces cells used for reproduction
4. Mitosis produces cells that are identical to the parent cell, while meiosis produces cells that carry half of the genetic material of the parent cell
5. Sexual reproduction requires cells to undergo meiosis whereas only mitosis is necessary for asexual reproduction.
6. A cell divides to form two cells during a process called mitosis
7. The offspring of a sexually-reproducing organism receives half of its genetic material from each parent
8. Meiosis plays a key role in sexual reproduction.
9. An egg cell and sperm cell unite during sexual reproduction
10. The ability to reproduce (Either asexually or sexually) is essential to the continuation of every species of living organism
11. Meiosis produces four daughter cells
12. The offspring of a plant that reproduces asexually will share all of the parent’s characteristics
13. Fertilization describes the union of a sperm and egg cell to form a zygote
14. Mitosis produces cells that are identical to the parent cell
15. Meiosis produces cells that carry half of the genetic information of the parents
16. Mitosis produces cells that are diploid
17. Meiosis produces cells that are haploid
18. Meiosis is used for asexual reproduction
19. Mitosis is necessary for asexual reproduction
20. Asexual reproduction requires one parent
21. Sexual reproduction creates more variety than asexual reproduction does
22. Gametes (sex cells) are produced through meiosis
23. Without mitosis, our cells would not grow or repair
24. Meiosis and mitosis are not identical processes
25. Telophase is the last phase of mitosis
26. If a parent cell starts out with 24 chromosomes and undergoes mitosis, the daughter cells will also have 24 chromosomes
27. Interphase, Mitosis and Cytokinesis are the stages of the cell cycle
28. Mitosis starts and ends with diploid cells
29. Meiosis produces gametes (haploid sperm and egg cells)
30. In meiosis, if a parent cell has 40 chromosomes, then the sex cell created will have 20
31. Meiosis starts with diploid cells and ends with haploid cells
32. Be able to identify INTERPHASE, PROPHASE, METAPHASE, ANAPHASE, TELOPHASE in cells
33. Compare/Contrast reproduction forms: know advantages/disadvantages of each, how many parents are involved, as well as some additional facts about each.