

General Biology
South Sevier High School
Cell Reproduction - Stuff you must know

Name _____
Date _____
Per _____

1. What is diffusion?
2. What is osmosis?
3. What is the name of a solution where the concentration inside and outside the cell are the same?
4. What is the name of a solution where the concentration of dissolved substances is lower outside the cell than inside the cell, causing water to move into the cell and swell?
5. What is the name of a solution where the concentration of dissolved substances is higher outside the cell than inside the cell, causing water to move out of the cell and shrink?
6. What is passive transport?
7. What is active transport?
8. What is endocytosis?
9. What is exocytosis?
10. What factors affect the diffusion of water through a membrane by osmosis?
11. What is the main difference between passive and active transport?
12. A paramecium expels water when it is in freshwater. What can you conclude about the concentration gradient in the organism's environment (isotonic, hypertonic, hypotonic)?
13. What is the expected result of having an animal cell in a hypertonic solution?
14. Why are most cells very small?
15. When a cell gets larger, which increases faster, its volume or its surface area?
16. What is the surface area of a 2 cm cube?
17. What is the volume of a 2 cm cube?
18. Determine surface area to volume ratio of a 2 cm cube.
19. Who determines the sex of an unborn child?
20. How many chromosomes are found in the cells of a normal human being?
21. What is cancer?
22. How many new cells are made every day by our bodies?
23. What is in charge of cell reproduction?
24. What is the name of the method of asexual reproduction carried out by prokaryotic cells?
25. What types of cells are made during asexual reproduction?

26. What are genes?
27. How does a 6-foot piece of DNA fit inside a tiny nucleus?
28. What is a chromosome, and what are they made of?
29. Does the number of chromosomes have anything to do with an organism's complexity or intelligence?
30. What are sex chromosomes, and how many do we have?
31. What are autosomes, and how many do we have?
32. What is the name of the condition where every cell has two copies of each autosome?
33. What is a karyotype?
34. What do we call cells that have both sets of chromosomes ($2n$)?
35. Where are these $2n$ cells found?
36. What do we call cells that have only one set of chromosomes (n)?
37. Where are these n cells found?
38. What would happen if sex cells were diploid?
39. What are the three main phases of interphase?
40. What happens when a cell is in G1 phase?
41. What happens when a cell is in S phase?
42. What happens when a cell is in G2 phase?
43. What are the four phases of mitosis?
44. What happens when a cell is in prophase?
45. What happens when a cell is in metaphase?
46. What happens when a cell is in anaphase?
47. What happens when a cell is in telophase?
48. What is cytokinesis?
49. How does cytokinesis differ in plant and animal cells?
50. What is Down's syndrome, and why does it happen?
51. What factors affect the incidence of Down's syndrome?