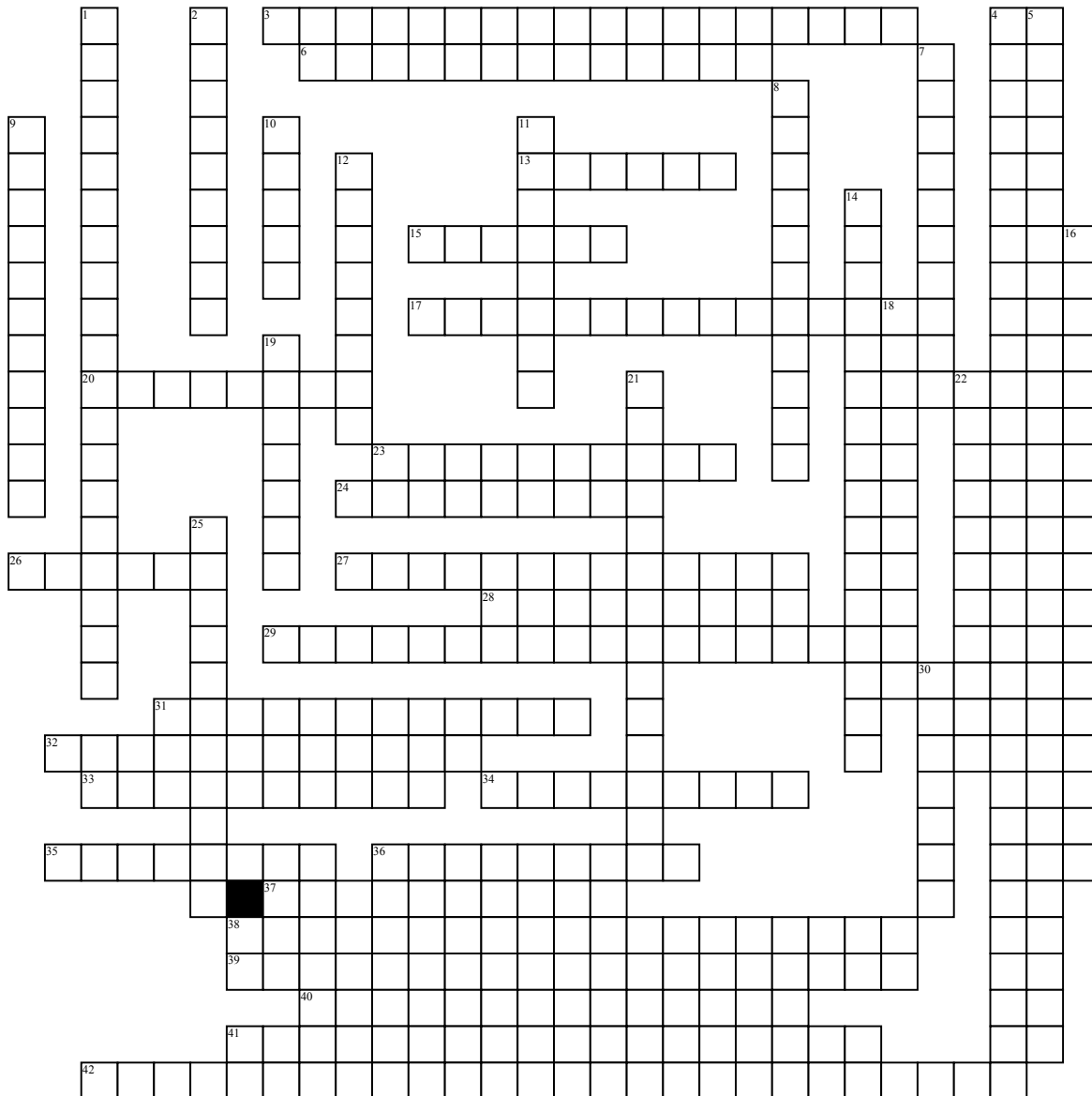


Name: \_\_\_\_\_

Date: \_\_\_\_\_

# Chapter 4- The Cell



## Across

3. focuses a beam of electrons through or onto the surface of a specimen; 100,000x  
 6. dividing of cells in prokaryotes  
 13. when diverse proteins embed themselves in the phospholipid bilayer  
 15. fluid containing DNA, ribosomes, and enzymes in a chloroplast  
 17. bends light through lenses to magnify the image of specimen as it is projected into your eye; object appears upside down; magnify up to 1000 times clearly  
 20. provides an acidic environment for its enzymes' digestive functions; digest food and recycles damaged organelles  
 23. picture taken by a microscope  
 24. makes more ribosomes and synthesizes RNA  
 26. transport in our bodies paid for with ATP  
 27. increase in apparent size of an object  
 28. combination of DNA and protein fibers  
 29. eliminates water in protists  
 31. chloroplasts and \_\_\_ function in energy processing  
 32. structural support, movement, and communication between cells are the functions of the plasmamembrane, plant cell wall, and \_\_\_  
 33. measure of clarity  
 34. membranous sac in a chloroplast

35. prokaryotes have this in place of a nucleus  
 36. nucleus and \_\_\_ carry out the genetic control of the cell  
 37. true nucleus  
 38. stores water and a variety of chemicals  
 39. contains mitochondrial dna, ribosomes, enzymes that catalyze reactions of cellular respiration  
 40. only organelle named after someone; finishes, sorts, and ships cell products  
 41. chemical activities of a cell  
 42. uses thin film of gold over specimen; big in size; views surfaces of cells  
**Down**  
 1. provides support; regulates cellular activities  
 2. have cell walls, chloroplasts, large vacuole, plasmodesmata  
 4. views internal cell structure; uses electromagnets to bend the paths of the electrons  
 5. a microscope that amplifies differences in destiny so that structures in the living cells appear almost three-dimensional  
 7. has lysosomes, centrioles, some have flagella  
 8. thread-like gene carrying structures found in the nucleus; most visible during mitosis  
 9. before nucleus  
 10. stacks of thylakoids, where green chlorophyll molecules trap solar energy

11. acts as a detoxifier, lacks attached ribosomes; produces enzymes for synthesis of lipids, oils, etc.; storage of calcium ions  
 12. sacs of membrane  
 14. comes from the maternal line  
 16. involved in the synthesis, storage, and export of molecules; contains nuclear envelope, ER, golgi apparatus, lysosomes, vacuoles, and plasma membrane  
 18. bacteria are \_\_\_  
 19. makes more membrane, makes proteins destined to leave the cell  
 21. very thin boundary of a cell that is flexible  
 22. coined the term "cells" when examining cork cells  
 25. organelles involved in manufacture, distribution, and breakdown of molecules include the ER, golgi, lysosomes, vacuoles, and \_\_\_  
 30. genetic control center of the cell; contains most of the cell's dna