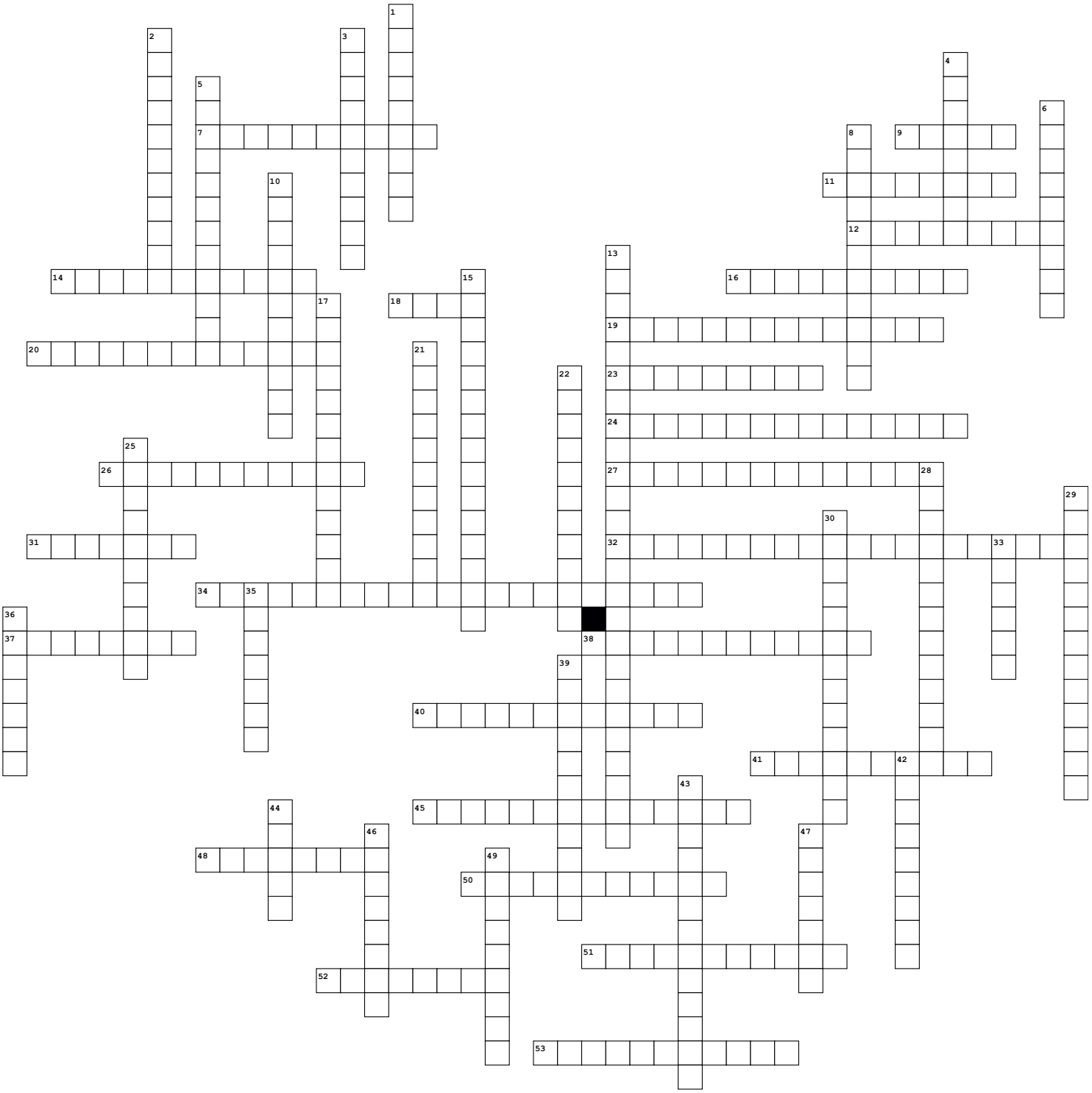
iBiology Cells



Across

7. "Before nucleus"

9. abbreviated name of a simple species of bacteria.

11. DNA-containing region in a prokaryote.

Down

1. Function of life: removal of waste

2. "Water-attracting"

3. The process of forming vesicles to export molecules from the cell, through the plasma

12. The surface area to volume ratio of a cell _____ as the cell gets larger.

14. The process of using plasma membrane to engulf molecules, form vesicles and bring the molecule into the cell.

16. Structure in eukaryotes made up of a single long piece of DNA coiled on a protein.

18. Short fibres on the cell wall of a prokaryote, used for cell attachment and DNA transfer.

19. Membranes that process and package proteins to be secreted (exported) from the cell.

20. Organelle responsible for respiration in eukaryotes.

23. "True nucleus"

24. The process of a cell becoming specialized to suit its function.

26. The process of using plasma membrane to engulf fluids, form vesicles and bring the fluid into the cell.

27. Outer limit of eukaryote cells, made of a phosopolipid bilayer, controls entry and exit to the cell.

31. Large space in plant cells, used for storage of water or nutrients.

32. Property of membranes that means some molecule types (dependent of size or properties) can pass through and others cannot.

34. Description of difference between areas of two different concentrations of a substance.

37. A type fo cell that retains the capacity to divide and to differentiate into specialized cells.

38. Integral proteins that use ATP energy to move molecules across the plasma membrane, against the concentration gradient.

40. Molecule that makes up plasma membranes, phosphate head and fatty acid tails.

41. Cell-surface proteins, do not go all the way through.

45. Internal structure of a cell.

48. Type of membrane protein that is embedded in the membrane all the way through.

50. 'Water-repelling"

51. _____ diffusion is passive movement of molecules from high to low concentration, across a membrane, using a channel protein.

52. Outer-layer of plant cells and prokaryote cells.

53. Function of life: conversion of energy to make ATP

membrane.

4. Vesicle containing digestive enzymes to break down molecules in the cell.

5. Function of life: making new generations

6. As a cell differentiates to become specialized, some genes are _____ and not others.

8. The model of plasma membranes we use is described as a _____ _____ as it can flow and is made up of many connected components.

10. A type of cell that performs a specific function.

13. Folded membrane with ribosomes, producing proteins for export from the cell.

15. Passive method of movement of molecules from an area of high concentration to low concentration.

17. Method of cell division of prokaryotes

21. Chlorophyll-containing organelle, site of photosynthesis.

22. Single-celled organism

25. Unit of measurement (μm)

28. Term used to describe components of a cell that are outside the plasma membrane, e.g. cell walls.

29. Produce proteins for use inside the cell.

30. extracellular components made of sugars that are used in adhesion, cell communication.

33. _____ transport of molecules requires an integral membrane protein pump to move molecules against the concentration gradient.

35. Membrane-bound organelle containing all eukaryote chromosomes.

36. The passive net movement of water molecules across a partially-permeable membrane, from areas of low solute concentration to high solute concentration.

39. Type of lipid that helps maintain the fluidity of the phospholipid bilayer.

42. ____ stem cells are totipotent: they can differentiate into any cell type.

43. Many-celled organism

44. Example of simple unicellular organism

46. These are whip-like structures that allow prokaryotes to move through fluids.

47. Type of integral protein that is used for facilitated diffusion.

49. Fluid inside cells, water-based, containing many enzymes and molecules.