



**ACROSS**

- 2 Gram-\_\_\_\_\_ bacteria are those that retain a crystal violet dye during the Gram stain process.
- 4 A \_\_\_\_\_ is a hairlike appendage found on the surface of many bacteria.
- 9 A \_\_\_\_\_ is a proteinaceous appendage in many gram-negative bacteria that is thinner and shorter than a flagellum.
- 10 A \_\_\_\_\_ is a dormant, tough, non-reproductive structure produced by a small number of bacteria the purpose of which is to ensure the survival of the bacterium through periods of environmental stress.
- 11 \_\_\_\_\_ is a protein that arranges itself in a hollow cylinder to form the filament in bacterial flagellum
- 13 A \_\_\_\_\_ is an organism that is too small to be seen by the human eye.
- 15 The \_\_\_\_\_, or archaeobacteria, are a major group of prokaryotic microorganisms in which many species are extremophiles.
- 18 A \_\_\_\_\_ is an organism that produces complex organic compounds

- from simple inorganic molecules and an external source of energy.
- 19 A \_\_\_\_\_ dish is a shallow glass or plastic cylindrical dish that biologists use to culture cells.
- 20 \_\_\_\_\_ is a phylum of bacteria which obtain their energy through photosynthesis, often referred to as blue-green algae.
- 21 The cell \_\_\_\_\_ of a bacterium is the cell membrane and cell wall plus an outer membrane.

**DOWN**

- 1 \_\_\_\_\_ fission is the form of asexual reproduction in prokaryotic single-celled organisms by which one cell divides into two cells of the same size.
- 3 A \_\_\_\_\_ is an organism that thrives in and may even require physically or geochemically extreme conditions that are detrimental to the majority of life on Earth.
- 5 \_\_\_\_\_ in microbiology refers to a bacterium with a cell body that twists like a spiral.
- 6 \_\_\_\_\_ are prokaryotic unicellular

- microorganisms ubiquitous in every habitat on Earth.
- 7 \_\_\_\_\_ or murein is a polymer consisting of sugars and amino acids that forms a mesh-like layer outside the plasma membrane of eubacteria.
- 8 \_\_\_\_\_ are microorganisms whose overall shape is spherical or nearly spherical.
- 9 A \_\_\_\_\_ is a long, slender projection from the cell body, composed of microtubules and surrounded by the plasma membrane.
- 12 A cell \_\_\_\_\_ is a fairly rigid layer surrounding a cell, located external to the cell membrane.
- 14 The \_\_\_\_\_ is a bacterial microcompartment made up of a protein shell, that contains enzymes involved in carbon fixation reactions.
- 16 \_\_\_\_\_s are a group of organisms that lack a cell nucleus or any other membrane-bound organelles.
- 17 The \_\_\_\_\_ in prokaryotes is an irregularly shaped region within the cell where the genetic material is localized.