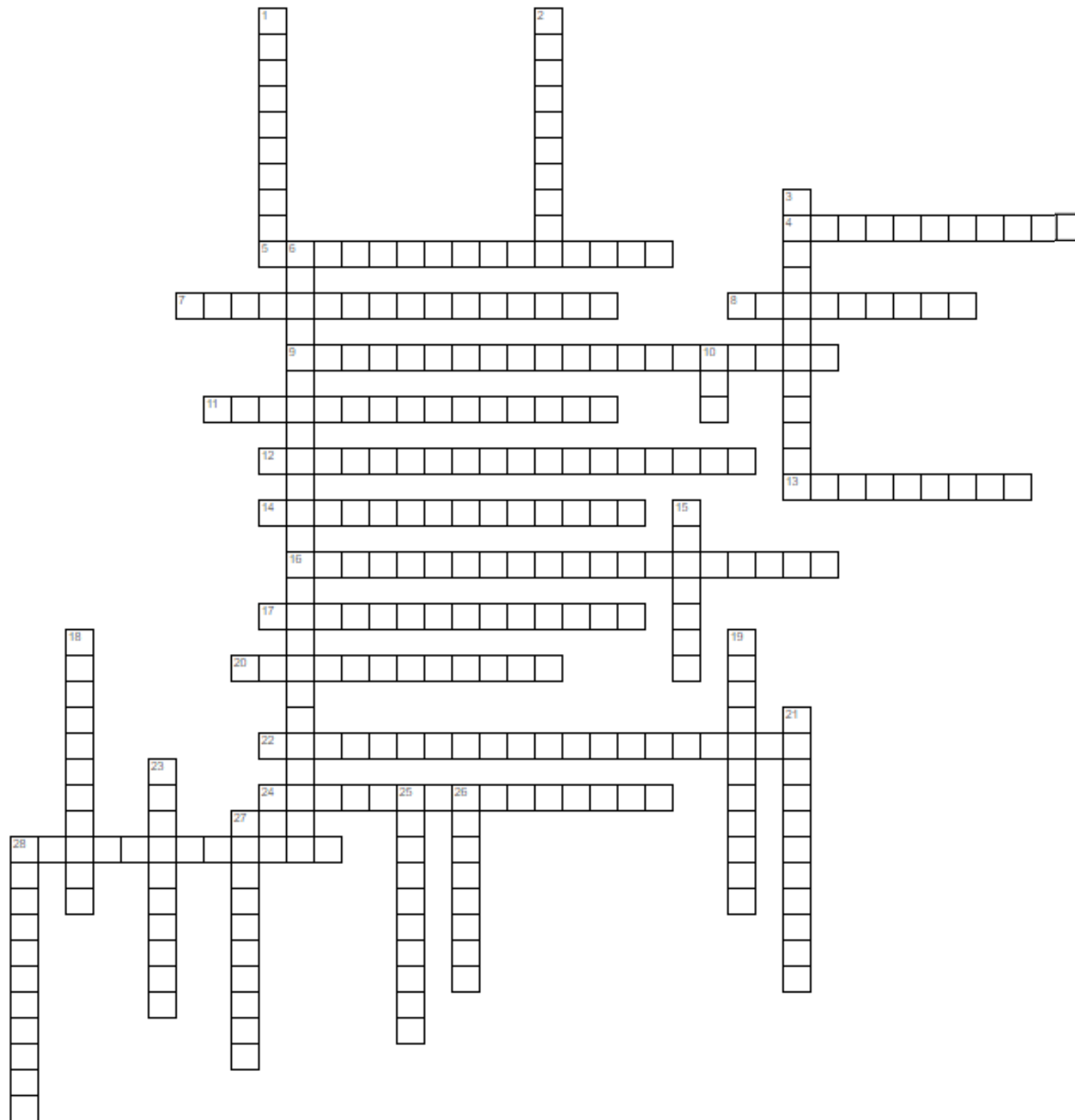


Cell Membrane Transport



Across

- 4 water fearing
- 5 The _____ pump brings in three sodium ions at a time by active transport, and moves out two potassium ions in the same cycle.
- 7 is the movement of substances across cell membranes without the use of ATP (energy)
- 8 A solution of lower solute concentration is described as _____ relative to a solution of higher solute concentration.
- 9 glucose breaks down without oxygen.
- 11 movement of a substance across the cell membrane and against its concentration gradient with the expenditure of ATP (Energy)
- 12 cellular process that uses oxygen to release energy, as ATP, from glucose in the mitochondria.
- 13 is the movement of particles of matter from an area of higher concentration to an area of lower concentration.
- 14 used for cell membrane transport with no energy needed
- 16 a thin membrane that is _____, film-like structure that allows some substances but not others to pass through
- 17 Plants are said to make their own food. They do this through the process of _____, which takes place in the chloroplasts of plant cells.
- 20 a tail to detect things around the cell
- 22 the transport of a substance through proteins in the cell membrane in a direction that is down the concentration gradient for that substance
- 24 a form of transport across a cell membrane in which a substance passes directly through the membrane in a direction that is down the concentration gradient for that substance
- 28 a phospholipid bilayer that encloses the cell's contents, separating and protecting the cell from its surroundings

Down

- 1 In _____, a glucose molecule splits into two 3-carbon molecules called pyruvate.
- 2 chemical reaction that adds a molecule of water in breaking a covalent bond
- 3 a type of lipid consisting of two fatty acids and a phosphate-containing group bonded to glycerol
- 6 the energy-carrying molecules produced in the previous stages are used to make ATP in the membrane of the mitochondrion. This stage uses oxygen.
- 10 is an energy-carrying molecule that releases energy when it loses a phosphate.
- 15 the diffusion of water across a selectively permeable membrane
- 18 water loving
- 19 _____, the second stage of photosynthesis, uses the products of the light dependent reactions to convert carbon dioxide into glucose.
- 21 process by which the cell membrane engulfs material outside the cell to bring it inside the cell
- 23 The opposite is true for a _____ solution, which has a higher solute concentration relative to another.
- 25 process by which a vacuole fuses with the cell membrane and releases its contents outside the cell
- 26 when two solutions on either side of a selectively permeable membrane have equal solute concentrations
- 27 takes place inside the mitochondrion some of the energy that came from glucose is transferred to other energy-carrying molecules.
- 28 stops the cell from freezing or melting, maintains structure