

Week 3 BIOS 242
Assignment WK 3 ALT
Microbial Nutrition

1. The organisms that can use inorganic carbon and the energy of chemical reactions are chemoautotrophs.
2. A photoheterotroph requires organic molecules for carbon and energy from sunlight.
3. During osmosis, water transfers through a semipermeable membrane following the concentration gradient.
4. Microorganisms living in soil and water associated with volcanic activity, compost piles, habitats directly exposed to the sun are thermophiles.
5. In active transport, nutrients are transported against the diffusion gradient or in the same direction as the natural gradient but at a faster rate with energy expenditure.
6. A hypertonic environment has a higher concentration of solutes outside the cell than inside the cell.
7. Pathogenic microbes have an optimum growth temperature in the mesophilic range.
8. A facultative anaerobe can grow in the presence of oxygen but does not require it.
9. Obligate halophiles inhabit the Dead Sea.
10. Most microorganisms grow at neutral pH and are called neutrophiles.
11. In a parasitic relationship, one member benefits and the other is harmed in some way.