

## BIOL 1114: Equivalent Terms and a Few Warnings

e.g. = for example

- Inhibits, blocks, prevents normal function
- Mimics, acts the same as
- Enhances, improves, makes greater
- Consume, eat, use up, acquire, take in (e.g., oxygen, carbon dioxide, glucose)
  - \*When organisms do these things, they are often getting, acquiring, using reactants/raw materials/substrates.
  - \*Sometimes as a part of consuming (or after consuming) a substance, they break it down/take it apart.
    - e.g., glucose is broken down during cellular respiration,
    - e.g., water is split in photosynthesis.
  - \*When organisms consume oxygen, the oxygen does not disappear; it is not destroyed. We mean that the oxygen is taken into the body, into cells, and is utilized to do something,
    - e.g., there is oxygen used in synthesizing (making) DNA and RNA,
    - e.g., some oxygen combines with (reacts with) carbon to make carbon dioxide.
- Produce, synthesize, put together: all these mean making something,
  - e.g., proteins are synthesized on ribosomes,
  - e.g., mRNA is made in the nucleus,
  - e.g., oxygen production in photosynthesis results from splitting water (water is a reactant in the process). That means that the water molecule is split apart with the energy acquired from the sun and two atoms of oxygen are put together to make O<sub>2</sub>.
  - \*In production, a product is produced.
- Provide, make available,
  - e.g., oxygen produced by algae in photo synthesis is provided to fish for cellular respiration
- Susceptible: can acquire/get an infectious disease,
  - e.g., people who have not been exposed to measles virus or been immunized against it are susceptible to measles, that is, they can get the disease
- Resistance/resistant: unlikely to be affected by something/able to withstand its effects,
  - e.g., cattle that have thick skins are resistant to tick feeding,
  - e.g., people whose lungs are very healthy (in very good condition) tend to be resistant to infection by the bacterium that causes TB,
  - e.g., a parasite that causes malaria and is quinine-resistant is unaffected by quinine,
  - e.g., bacteria that are antibiotic-resistant are unlikely to be affected by a particular antibiotic (Note that antibiotics are chemicals, **not** antibodies or antigens)
- Immune: not susceptible to an infectious disease agent,
  - e.g., someone vaccinated against the polio virus is probably immune to that virus,
  - e.g., someone who has already had measles is probably immune to that virus.
  - \*Note that in this course we discuss a very small part of the immune response of animals with backbones (vertebrates).
  - \*Note also that we do **not** refer to someone who is unaffected by a toxin as “immune to the toxin”.