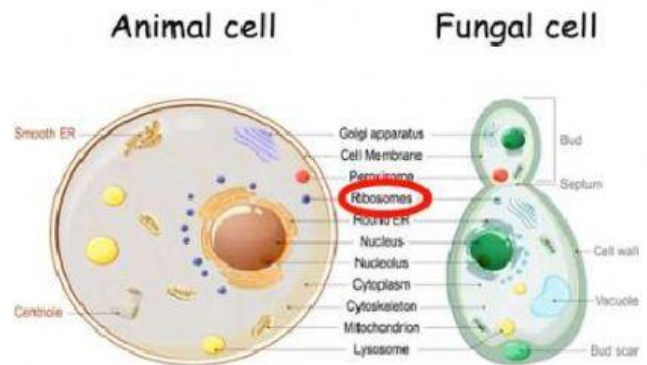
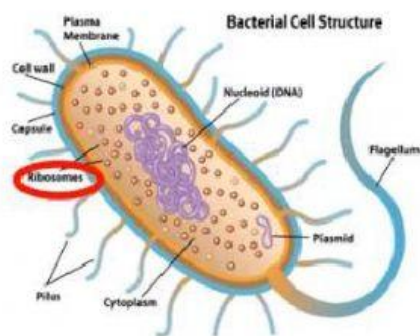


Learning Target: I can predict the causes or effects of a change in, or disruption to, one or more components in a biological system based on data.

AP Biology Topic 5.3 Mendelian Genetics notes

- Heritable information provides for _____
 - Nucleic Acids (DNA and RNA) are _____
 - Genetic information is _____
 - Transmission of genetic information from one _____
- Shared, conserved, fundamental processes and features _____
 - Major features of the genetic code are _____
 - All organisms use nucleic acids to _____
 - All organisms have _____ and use ribosomes to _____



- What do all three cells contain? _____ What does this mean? _____
- Shared, conserved, fundamental processes and features support _____
 - Core metabolic pathways are _____
 - Cellular respiration is a process used by _____ What are the two types of cellular respiration? _____ What part of cellular respiration is in both processes? _____ What does this mean? _____

Learning Target: I can predict the causes or effects of a change in, or disruption to, one or more components in a biological system based on data.

Skill Practice:

*Insulin is a hormone produced by some pancreatic cells. Scientists have isolated the DNA sequence that codes for human insulin production. Which of the following best **predicts** the effect of inserting this gene into the DNA of a bacterial cell?*

- a. The recombinant bacterium will produce human insulin using its own machinery.
- b. The recombinant bacterium will not use the human insulin gene because this gene is not normally found in the bacterial genome.
- c. The recombinant bacterium will contain the gene but will be unable to produce the protein.
- d. The recombinant bacterium will die because it has been exposed to foreign DNA.