**HL Biology – 2016 Curriculum – Diagrams to Draw/Know!**

1. Prokaryotic cell
2. Ultrastructure of generalized eukaryotic cell (ex: animal cell)
3. Organelles in eukaryotic cells in electron micrograph (identify what they are)
4. Fluid mosaic membrane model
5. Generalized Amino Acid
6. Ring structure of glucose and ribose
7. Structure of saturated fatty acid
8. Simple molecular structure of DNA
   1. Draw structure of single nucleotides using circles, pentagons, and rectangles
9. Simple molecular diagram showing formation of peptide bond
10. Action spectrum for photosynthesis and absorption spectrum for chlorophyll
11. Carbon cycle
12. S curve and J curves
13. Annotated diagram digestive system
14. Heart
15. Mapping cardiac cycle
16. Ventilation system
17. Annotated diagram male/female reproductive systems
18. Oscilloscope trace showing resting and action potential nerve impulses
19. Motor neuron
20. Nucleosome
21. Ribosome (with 3 binding sites)
22. tRNA (anticodon and amino acid attachment site)
23. Enzyme inhibition graphs (competitive vs non-competitive)
24. Structure of mitochondrion under electron micrographs (and where steps respiration happen)
25. Structure of the chloroplast under and electron micrograph (and where steps photosynthesis happen)
26. Structure of xylem and phloem vessels in sections of stems based on microscope images
27. Internal structure of a seed
28. Half view of animal-pollinated flowers
29. Steps of Mitosis (PMAT) – resulting in 2 diploid cells
30. Steps of Meiosis – resulting in 4 haploid cells
31. Chiasmata formed by crossing over
32. Human elbow joint
33. Annotated sarcomere
34. Skeletal muscle fibres under an electron micrograph
35. Kidney
36. Glomerulus and associated nephron
37. Seminiferous tubule and ovary to show gametogenesis
38. Mature sperm and egg