**Biology: Unit 1 Study Guide**

**(I Spy with my Assisted Eye…)**

**Microscope Parts and Functions**

*PARTS*

*FUNCTIONS*

|  |  |  |  |
| --- | --- | --- | --- |
| Focusing | Calculate magnification | Estimate size of specimen  | Preparing a slide |
|  |  |  |  |

**Development of the Microscope:**

**Cell Organelles and Functions**

*ORGANELLES*





*FUNCTION and structure of all organelles, with more focus on the following:*

|  |  |  |  |
| --- | --- | --- | --- |
| Cell Membrane | Nucleus  | Mitochondrion | Chloroplast |
| Diffusion/OsmosisPassive TransportActive TransportFacilitated DiffusionHypertonic, Hypotonic, and Isotonic solutions | Chromosomes/DNANucleolus | Cellular Respiration | Photosynthesis |

**Sugar and Starch Assays**

**Cell Cycle**

*CHROMOSOME STRUCTURE LIFE CYCLE*

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**Surface Area to Volume Ratio**

**Cancer**

*MITOSIS*

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**Energy in the Cell**

*CELLULAR RESPIRATION*

|  |  |  |
| --- | --- | --- |
| **Glycolosis** | **Citric Acid Cycle** | **Electron Transport Chain** |
|  |  |  |

**Fermentation**

|  |  |
| --- | --- |
| **Lactic Acid Fermentation** | **Alcoholic Fermentation** |
|  |  |

**Photosynthesis**

|  |  |
| --- | --- |
| **Light Dependent Reactions** | **Calvin Cycle** |
|  |  |