**Pre Biology: Students will have a fundamental understanding of basic science skills including:**

* Utilization of proper lab safety procedures and tools
* Identification and correct usage of lab ware
* Application of the Scientific Method
* Proper experimental setup and procedure
* Evaluation and interpretation of experimental data

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| **Lab Safety:** |
| **Equipment:** |
| shower.jpgName:Use: | extinguisher.jpgName:Use: | fire blanket.pngName:Use: | eye wash.jpgName:Use: |
| **Rules in the biology lab:** |
| 1. lab safety.jpgWash your hands.
2. Wash your desk before and after experiments.
3. Tell your teacher if anything spills or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
4. No monkey business or horseplay.
5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ carefully.
6. Listen and follow directions.
7. Handle animals with care and respect.
8. Don’t Eat or Drink anything without permission
9. Be careful with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or electrical appliances.
10. Wear your \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
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| **Lab Tools:** |
| Beakers.jpgName:Use: | flasks.jpgName:Use: | test tubes.jpgName:Use: | balance.jpgName:Use: |
| goggles.gifName:Use: | graduated cyl.jpgName:Use: | meniscus.JPGName:Use: | metric ruler.jpgName:Use |
| **Graphing:** |
| Types of Graphs: |
| bar graphs.pngName:Used For: | line graph.jpgName:Used For: | Pie chart.pngName:Used For: |
| Parts of Good Graph: |
| 1. | 2. | 3. | 4. |

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| **Scientific Method:** |
| Steps: |
| 1. | 2.Ways I Can Research My Problem: | 3. |
| 4. | 5. | 6. |
| Observation | Inference |

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| Experimental Design |
| Groups |
| **Control Group** | **Experimental/Variable Group** |
| Variables |
| **Controlled Variables** | **Independent Variable** | **Dependent Variable** |
| **Data** |
| **Qualitative*** Deals with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Data can be observed but not measured
* Colors, textures, smells, tastes, appearance, beauty, etc.
* Qualitative 🡪 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
 | **Quantitative*** Deals with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Data which can be measured.
* Length, height, area, volume, weight, speed, time, temp.
* Quantitative 🡪 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
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