Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Lab # \_\_\_\_\_\_\_

Honors Biology Mr. Collea

**Gum Lab**

***Summary Sheet***

**1.** Define each of the following terms:

**(A)** **Indpependent Variable** - \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**(B)** **Dependent Variable** - \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**(C)** **Controlled Variable** - \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**2.** What is a **Control Group**? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**3.** What served as a **Control Group** in this experiment?

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**4.** Identify the **Independent Variable** in this experiment?

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**5.** Identify the **Dependent Variable** in this experiment?

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**6.** In the table below, fill in the data you collected in this experiment.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Weight** (g) | | | |
| **Time** (min) | **Trial 1** | **Trial 2** | **Trial 3** | **Avg** |
| **0** |  |  |  |  |
| **1** |  |  |  |  |
| **2** |  |  |  |  |
| **3** |  |  |  |  |
| **4** |  |  |  |  |
| **5** |  |  |  |  |

**7.** Briefly explain how to calculate an average.

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**8.** On the grid below, reconstruct the graph you used to present the data for this experiment.

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**9.** What is the relationship between chewing time and the weight of gum?

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**10.** Did your data and results support your hypothesis? **YES or NO**

**11.** How do you know? The weight of the gum:

**INCREASED - DECREASED - REMAINED the SAME**

**12.** Based upon your knowledge of the digestive system, explain **WHY** the weight of the gum changed? *(Additional research may be required.)*

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**13.** Is there anything you would do differently to improve or modify this experiment?

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**14.** What other questions about the effects chewing has on the weight of gum do you have and would you like to investigate?

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