Name: _____ Group: _____ Date: _____

LAB 49 EXPERIMENT

DO ALL CARBOHYDRATES HAVE THE SAME SWEET TASTE?

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Goal

Compare the sweet taste of various carbohydrates.

1. What is the independent variable in this lab?

_____

_____

2. What is the dependent variable in this lab?

_____

_____

Hypothesis

I think that _____

because _____.

Materials

- sheet of paper
- 7 bottles with perforated caps (e.g. salt shakers) containing:
  - maltose
  - glucose
  - fructose
  - galactose
  - lactose
  - sucrose
  - starch
- drinking glass
- bottle of water *or* tap water

Procedure

1. Draw seven circles on the paper.
2. Write below each circle the name of the carbohydrate to be tested.
3. Sprinkle a few particles of each carbohydrate in its circle.
4. Taste each carbohydrate in turn, rinsing your mouth after each test.
5. Indicate the intensity of sweet taste of each carbohydrate on a scale of 0 (lowest) to 10 (highest).
6. Clean up and put away materials.

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Results

Record your observations in the table below. Give the table a title.

Title:

Carbohydrate	Intensity of sweet taste (scale of 0 to 10)

Reflecting on the lab technique

1. Place the carbohydrates tested in decreasing order of intensity of sweet taste.

2. Do all carbohydrates tested have the same sweet taste? Explain your answer.

3. What is the typical ending of names for carbohydrates?

4. What are the possible sources of error in this lab?

5. How could you improve the protocol for this lab?

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Conclusion

1. Complete the following sentence:

   All carbohydrates _____ the same sweet taste.

2. Was your hypothesis confirmed or not? Explain your answer.

_____

_____

Application

Substances other than carbohydrates can be used to give foods a sweet taste. Name a product found in soft drinks and sugarless gum.

_____