Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Handout \_\_\_\_\_\_\_\_
Class \_\_\_\_\_\_\_\_

**Experimental Conclusions**

* Sums up the answer to the experimental question.

Example: Will a plant grow taller with salt water

* States whether or not your hypothesis was true or proven false.
* Explains the trends seen in your graph
* States only the facts - does not have “opinion” words

Example: The plant grew better with fresh water – incorrect

 The plant grew 5 cm taller with fresh water – correct

* Includes data collected during the experiment to support your answer.

Without data, your conclusion is not valid.

**Example:** In conclusion, a plant with less water will grow less tall than a plant with more water. The hypothesis was that if a plant is given less water it will grow less tall than a plant with more water because water is a starting material for photosynthesis and if the plant doesn’t get enough water it won’t be able to make the food (energy) it needs to grow. The hypothesis was proven true because at the end of the 5 day growing period the plant with less water was 5 cm tall and the plant with more water was 9 cm tall. The plant with more water grew 4 cm more during that time period. Overall, the plant with less water grew at a steady rate but did not ever get as tall as the plant with more water.

**Directions:** Read the following conclusions and evaluate them according to the criteria above. Decide what each conclusion is lacking and which has the most supporting evidence and contains data to support the conclusion.

|  |  |
| --- | --- |
| 1. The plant with salt water shot up, but then climbed slowly. The plant with regular water grew steadily. I think regular water will be better.
 | 1. Evaluation
 |
| 1. The two plants grew at different rates. The plant with salt water grew faster but then slowed down. The plant with regular water grew at a steady pace and ended up being taller.
2. Plants grown with regular water grew taller than plants grown with salt water. The plant with regular water measured 12 cm and the plant with salt water measured 6 cm on the last day of the experiment. The plant grown with salt water was taller than the fresh water plant on the first day it was measured, but the fresh water plant grew taller by the end of the experiment. The hypothesis was proven true that a plant with salt water will grow less tall than a plant with fresh water.
 | B. Evaluation |
| 1. At the end of the experiment the plants grown with fresh water grew taller than the ones with salt water. The plants with salt water grew faster at first but then the fresh water plants grew taller.
 | D. Evaluation |