

# Why Plants Are Green

Name \_\_\_\_\_  
Date \_\_\_\_\_ Period \_\_\_\_\_ Score \_\_\_\_\_ /4

CATEGORY	4	3	2	1
<b>Question/Purpose</b>  <b>Hypothesis</b>  ____/4	The purpose / hypothesis portion includes a research-based description of the reasoning the predicted relationship is based on.	The purpose of the lab or the question to be answered during the lab is clearly identified and stated.  The hypothesis clearly predicts the colors that either be reflected or absorbed by the green filter.	The purpose of the lab or the question to be answered during the lab is identified, but is stated in a somewhat unclear manner. The hypothesis does not display clear logic based on previous samples.	The purpose of the lab or the question to be answered during the lab is erroneous or irrelevant.  The hypothesis is missing.
<b>Materials</b>  <b>Procedures</b>  ____/4	Exceptional detail.	All materials and setup used in the experiment are clearly and accurately described  Procedures are listed in clear steps. Each step is numbered and is a complete sentence.	Almost all materials and the setup used in the experiment are clearly and accurately described.  Procedures are listed in a logical order, but steps are not numbered and/or are not in complete sentences.	Many materials are described inaccurately  Procedures do not accurately list the steps of the experiment and are difficult to follow
<b>Note Point Values→</b>	8	6	4	2
<b>Drawings/Diagrams</b>  ____/8	Exceptional detail.	Clear, accurate diagrams are included and make the experiment easier to understand. Diagrams are labeled neatly and accurately.	Diagrams are included and are labeled. Attention to detail is lacking.	Needed diagrams are missing important details and labels.
<b>Note Point Values→</b>	4	3	2	1
<b>Results: Observations</b>  ____/4	Exceptional detail. A data table was used to organize the observations.	At least 5 additional observations are included which describe details of the lab which are not included in the drawings.	3-4 additional observations are included which describe details of the lab which are not included in the drawings.	1-2 additional observation is included which describe details of the lab which are not included in the drawings.
<b>Note Point Values→</b>	12	9	6	3
<b>Analysis: Identifies evidence of which colors are absorbed/reflected by chlorophyll</b>  ____/12	Additional thoughts about the data. Recognize and discuss cause and effect, relationships between variables. Evaluate possible sources of error Demonstrate "next level" thinking by identifying how this lab/data can be transferred to other applications	This paragraph clearly explains which colors appeared and which were absorbed by each filter. The discussion should include how reflection/absorption of light energy explains why plants are green.	This paragraph clearly explains which colors appeared with each filter but does not clearly identify how this evidence explains why plants are green.	This paragraph <u>does not clearly explain</u> why plants are green based on absorption.
<b>Note Point Value</b>	8	6	4	2
<b>Conclusion</b>  ____/8	Conclusion also includes a logical extension (I wonder...) that explores related topics AND includes reasonable hypothetical responses to the "I wonder" question.	Conclusion includes a topic sentence which restates the purpose and whether the findings supported the hypothesis, a discussion of the hypothesis, and what was learned from the experiment.	Conclusion includes whether the findings supported the hypothesis and what was learned from the experiment.	Conclusion shows little effort and reflection.

\_\_\_\_/40÷10 = \_\_\_\_/4