

## Grading Rubric: Think Green

ASSIGNMENT	UNSATISFACTORY (1 POINT)	SATISFACTORY (2 POINTS)	EXCELLENT (3 POINTS)
<b>#1: Define Key Terms</b>	<ul style="list-style-type: none"> <li>-Lab notebook does not include definitions for all 18 terms included in the assignment</li> <li>-Many of the completed definitions include incorrect information and/or lack enough detail to adequately explain the concept</li> </ul>	Lab notebook includes: <ul style="list-style-type: none"> <li>-Entries for all 18 terms included in the assignment</li> <li>-Most definitions include accurate information with enough detail to explain basic concepts</li> </ul>	Lab notebook includes: <ul style="list-style-type: none"> <li>-Well-written definitions given for all 18 terms included in the assignment.</li> <li>-All definitions include accurate information with adequate detail to thoroughly explain concepts</li> </ul>
<b>#2: Experimental Design</b>	<ul style="list-style-type: none"> <li>-Lab notebook does not include one or more of the tasks for the assignment</li> <li>-Student is unable to correctly identify the variable and control for the assigned treatment</li> <li>-Hypotheses are poorly written and/or do not include an explanation of student reasoning</li> </ul>	Lab notebook includes: <ul style="list-style-type: none"> <li>-Entries for all four tasks included in the assignment</li> <li>-Correct identification of the variable and control for the assigned treatment</li> <li>-Hypotheses accompanied by a basic explanation of student reasoning</li> </ul>	Lab notebook includes: <ul style="list-style-type: none"> <li>-Detailed entries for all four tasks included in the assignment</li> <li>-Correct identification of the variable and control for the assigned treatment</li> <li>-Well thought-out hypotheses accompanied by detailed explanations of student reasoning indicating understanding of the potential effect of the assigned experimental treatment</li> </ul>
<b>#3: Weekly Observations &amp; Measurements</b>	<ul style="list-style-type: none"> <li>-Lab notebook does not include one or more of the outlined tasks for the assignment</li> <li>-Completed tasks include minimal detail or incorrect information</li> </ul>	Lab notebook includes: <ul style="list-style-type: none"> <li>-Weekly entries for all seven tasks outlined for the assignment</li> <li>-Correct identification of the age, stage, and time to bolting for all plants</li> <li>-Simple drawings included for all strains in treatment</li> <li>-Drawings include some notes on plant condition and at least some comparisons between control and treatment and/or between different strains</li> <li>-Measurements for rosette diameter and inflorescence height are noted at the appropriate developmental stage and are completed on a weekly basis</li> </ul>	Lab notebook includes: <ul style="list-style-type: none"> <li>-Detailed weekly entries for all seven tasks outlined for the assignment.</li> <li>-Correct identification of the age, stage, and time to bolting for all plants</li> <li>-Detailed drawings that include descriptive notes on plant condition for all strains included in the treatment</li> <li>-Thoughtful comparison of the condition of the different strains, as well as between the control and treatment plants</li> <li>-Measurements for rosette diameter and inflorescence height are noted at the appropriate developmental stage and are completed on a weekly basis</li> <li>-Measurements are consistently written with the measurement unit included</li> </ul>

ASSIGNMENT	UNSATISFACTORY (1 POINT)	SATISFACTORY (2 POINTS)	EXCELLENT (3 POINTS)
<b>#4: Measure Aboveground Fresh Weight</b>	Lab notebook does not include one of the following: -Weight of the empty bag or envelop -Weight of the bag or envelop with the plant material -Correct calculation of the weight of the plant material	Lab notebook includes: -Weight of the empty bag or envelop -Weight of the bag or envelop with the plant material -Correct calculation of the weight of the plant material	n/a
<b>#5: Display &amp; Interpret Data</b>	-Lab notebook does not include one or more of the outlined tasks for the assignment -Completed tasks include minimal detail or incorrect information	Lab notebook includes: -Entries for six written tasks outlined in the assignment -Basic data visualizations -A simple summary of the effect of the treatment on each seed strain -Comparison of the results with original hypotheses -Predictions about strain survival indicate a basic understanding results from each group treatment -Simple research question and hypothesis for new stress condition -Selection of an individual strain and stressor for future study with basic explanation about choice  -Classroom presentation includes enough information to adequately explain the results of the experimental treatment	Lab notebook includes: -Detailed entries for six written tasks outlined in the assignment -Data visualizations include titles, legends and labels -Detailed summary of the effect of the treatment on each strain -Thoughtful comparison of the results with the original hypotheses and an explanation of any discrepancies -Predictions about strain survival include a thorough explanation of reasoning and indicate an understanding of the results from each group treatment -Well-stated research question and logical hypothesis for new stress condition -Selection of an individual strain and stressor for future study with a detailed explanation of reasoning  -Well organized classroom presentation that thoroughly explained the results of the experimental treatment