



# Needs of Seeds

Your lab report should include all of the following. You should number and name each step and follow the directions given to complete the investigation.

**1. Activate Prior Knowledge:** Write a 4-8 sentence LAPS summary of the "Needs of Seeds" information given to you.

**2. Question:** Write the question for this lab on your paper. The question for this investigation is "What is the most important abiotic factor needed for seeds to germinate?"

**3. Hypothesis:** Write your Hypothesis as an "I think ...because ..." or an "If... then... because..." statement.

**4. Experiment:**

Materials:

- a. This is a list of equipment, materials, etc. needed to perform the investigation.
- b. This list should be numbered, neat, and organized.

Procedure:

- a. This is a numbered, step-by-step set of instructions of EXACTLY what you did or will do to test your hypothesis.
- b. Only one direction per step.
- c. State your variable, controls, and how you will use your materials.

**5. Collect Data:** Include all daily measurements or observations in a table or chart.

**6. Analyze Data:**

- a. Describe any patterns, trends, or similarities in your collected data.
- b. Describe why you think the result turned out the way it did.
- c. Discuss any data that doesn't seem to belong. What errors did you make?
- d. Answer any teacher given questions here.

**7. Conclusion:**

- a. Discuss whether or not your data supports your hypothesis.
- b. What did you learn from this investigation?
- c. Use CEAL paragraph skill to write the conclusion.

**8. Share**

- a. All final reports must be neatly written or typed.
- b. No errors, scribble-outs, typos, or spelling errors. This is a PERFECT document.

Needs of Seed Rubric			
Standard	Scientific Process Steps	3-Proficient	4-Advanced
<i>Reading</i>	<b>Activate Prior knowledge</b>	Summarize information from introduction in 4-8 complete sentences using LAPS.	Incorporate and define abiotic factors in your summary, use additional sources of information
	<b>Generate a Question</b>	Given to you.	
1.1	<b>Create a Hypothesis</b>	I think... because... statement	If... then... because statement
1.1	<b>Conduct an Experiment</b>	List materials and write complete repeatable procedure, identifying and controlling for variables	Write complete, detailed, repeatable procedure, identifying and controlling for variables.
1.2	<b>Collect Data</b>	Record and visually display data accurately in a chart	Include the data from two other students in our chart; calculate percent
1.3	<b>Analyze Data</b>	4-8 complete sentences looking for patterns within your data, an explanation why you think you got this data, and the errors that occurred.	Describe the patterns that are similar with your data and the data of two other students.
1.5 <i>Writing</i>	<b>Make Conclusions</b>	CEAL paragraph describing whether or not your data supports your hypothesis and links your research to a new investigation.	Identify strengths and weaknesses in your lab design and discuss accuracy in data collection
<i>Work Ethic</i>	<b>Share</b>	Final write-up is free of errors and neatly written in ink or typewritten.	Some form of public display of data such as a Science Project Display, Powerpoint, Educreations, etc.