

ASYNCH Lesson Nearpod and TDA Assignment

Focus on: Plants

**What's
Sprouting
Lab**



IF you did NOT DO the
What's Sprouting Lab,

You are to record the data from this review
on the lab document NOW!

It was emailed and is in the course!

It is WORTH 30 POINTS!

Focus on: Plants

**What's
Sprouting
Lab**



If you need the Problem,
IV, DV and Hypothesis
see class recording for
Phase 1 Set Up!

What's Sprouting Lab: Data and Analysis

1. Examination of Data
2. Analysis provided via TDA

Objectives





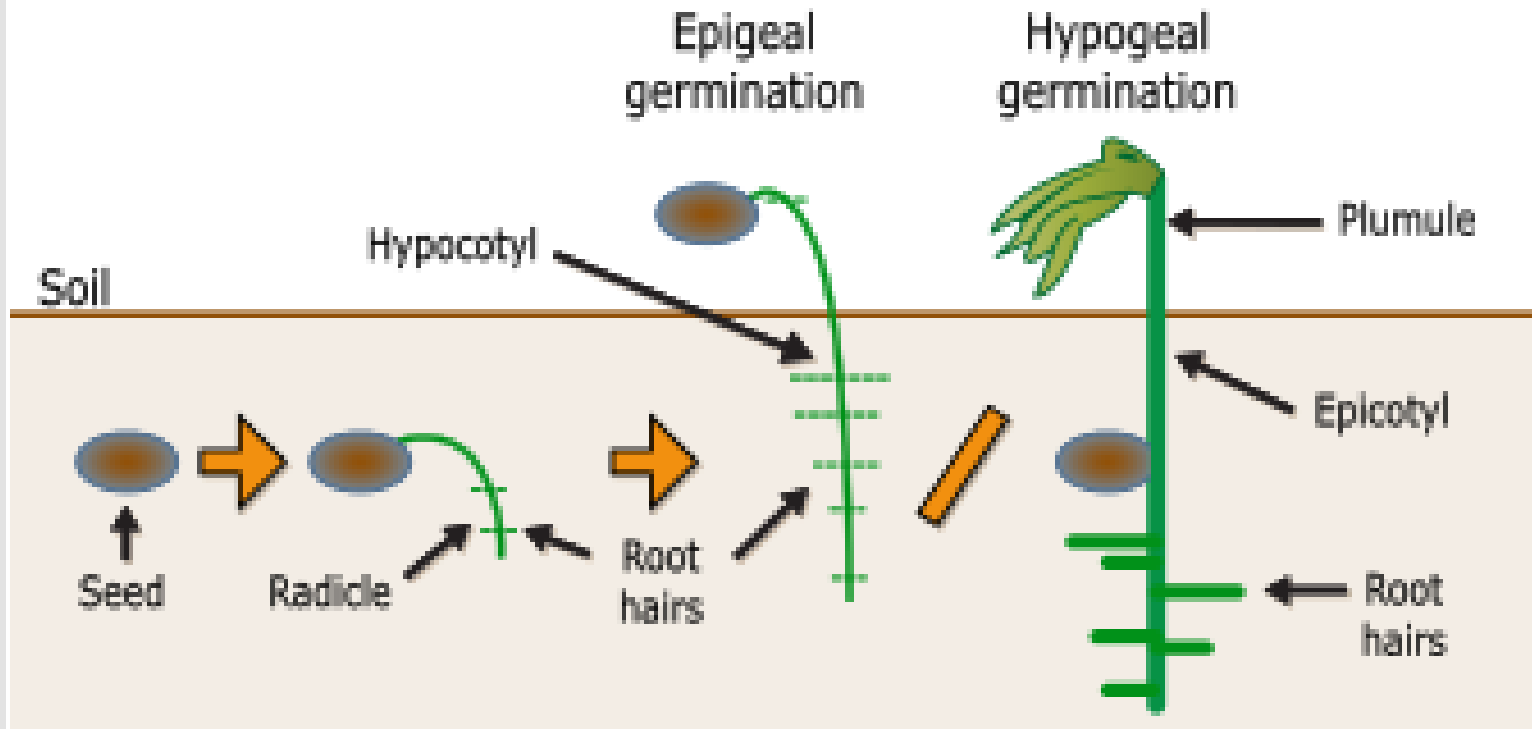
What's Sprouting Lab

Did you read/view the BACKGROUND INFORMATION?

- **How Long Does it Take for Radishes to Germinate?**
 - <https://homeguides.sfgate.com/long-radishes-germinate-68498.html>
- **7 Factors that Affect Seed Germination**
 - <https://livingonagreenthumb.wordpress.com/2015/03/16/7-factors-that-affect-seed-germination/>
- **Seed Germination Time-Lapsed Video**
 - <https://www.carolina.com/teacher-resources/Video/seed-germination-time-lapse-video/tr40110.tr>

LINKS are on the What's Sprouting Lab!

What Germination LOOKS LIKE



What's Sprouting Lab

Materials:

Science Kit:

Petri dish,
radish seeds,
thermometer

From Home:

paper towel or
newspaper,
water,
ruler,
scissors,
pen/marker



Did you READ the back of the Radish Seed package?

Procedure:



What's Sprouting Lab

- On the paper towel/newspaper, trace around the bottom of the Petri dish (smaller side) with the pen/marker. four times.
- Cut out the FOUR (4) circles.
- Make the circles of paper towel/newspaper wet with water. Squeeze out excess water, but you want the paper damp.
- Put two (2) layers of the damp paper towel/newspaper in the bottom of the Petri dish.
- Count out ten (10) radish seeds.
- Place the ten (10) on top of the damp paper towel/newspaper.
- **ACTION ITEM:** Data Collection
Complete the **Day 1** section of the **Data Table** by recording the
 - appearance of the seed (describe what it looks like)
 - and size [measure with a ruler in millimeters (mm)] of a seed.
- Cover with the last two (2) layers of damp paper towel/newspaper and cover the Petri dish with its lid.
- **Place the Petri dish in**
 - **Phase 1:** a cabinet or drawer
 - **Phase 2:** a window sill
 - **Phase 3:** the refrigerator**where it will not be disturbed.**
- Using your thermometer, take and record the **temperature** in the location for that Phase.
- **ACTION ITEM: EVERY DAY** Data Collection
Complete the Day section of the Data Table by recording the appearance and size of the seed with the most visible germination (growth) for seven (7) days








IF you did NOT do the Lab: WRITE this Data on your Data Table



Temperature: 76 °F

What's Sprouting Lab

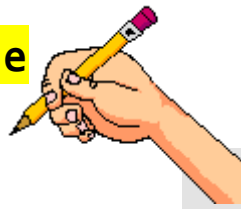
Phase 1 Cabinet

Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
						
Tan, smooth almost round	Slightly swollen	Popped open	End is fuzzy	All have opened	Lid is popped up from sprouts	Sprouts are intertwined
2 mm	3 mm	10 mm	28 mm	50 mm	80 mm	115 mm








Final Drawing



IF you did NOT do the Lab: WRITE this Data on your Data Table



Temperature: 62 °F

Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
						
Tan smooth almost round	Slightly swollen	Popped open	All open no drastic growth	All have white fuzzy ends	Green leaves present on 6 out of 10	No fine hair roots on ends
2 mm	3 mm	7 mm	8 mm	20 mm	50 mm	80 mm

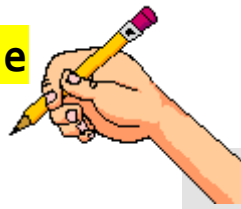
What's Sprouting Lab

Phase 2 Window Sill

Final Drawing










IF you did NOT do the Lab: WRITE this Data on your Data Table



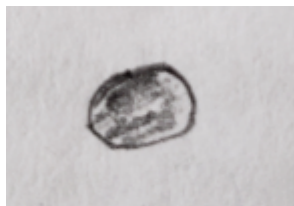
Temperature: 52 °F

What's Sprouting Lab

Phase 3 Refrigerator

Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
						
Tan smooth almost round	No change	Slightly swollen	No change	No change	No change	No change
2 mm	2 mm	3 mm	3 mm	3 mm	3 mm	3 mm

Final Drawing



FINALIZE the Lab Document for Submission!

FOLLOW the
Scientific
Method!

#6, 7
& 8

ACTION ITEM:

Phases 1, 2 & 3 should NOW be COMPLETE!!

ALL Data Tables should be filled in!

6. **Analyze the data**

- Complete Graphs of your Data
 - MAKE ONE line graph using: <https://nces.ed.gov/nceskids/createagraph/>
 - INSERT Line Graph with all Three Phases' Data ...as a JPEG
 - Examine the Graph of your Data: You are looking for the most growth.

7. **Form conclusions**

- Based upon the data, which environment is the best for radish seed development?
(write in complete sentences)

8. **Write and present your research.**

- Make sure all sections (above) are completed and saved.
- And, **SUBMIT** your saved lab document through the Assignments module.
- Your PRINTED lab should have your drawings on it!

COMPLETE these steps and **UPLOAD** your saved What's Sprouting Lab document **NOW**.
This Lab document is **WORTH 30 Points!**

<p>RA - <u>Restate</u> the question (the 2nd sentence in the TDA question) and <u>answer</u> it.</p>	<p>The Task/Question: Restate the Question: Which factors impacted the seed germination in this lab?</p> <p>Your answer (this will be your introductory sentence):</p>
<p>C - Cite an example from the text to support your answer. Use a direct quote.</p> <p>To complete YOUR sentence ADD one to/before the quote: The text says... or <u>The</u> author says...</p>	<p>E - Explain why the quote you used is evidence to support your answer.</p> <p>To complete YOUR sentence ADD one: This shows... or This is because... or This means... or This proves...</p>
<p>FOR EXAMPLE: (not no use) "Seedlings generally need to be kept moist but not wet."</p>	<p>FOR EXAMPLE: (do not use) In all three Phases of the lab, the paper towel was wet.</p>
<p>1. From the Article - <i>This will be a supporting sentence.</i> " . "</p>	<p>1. About the quote from the Article - <i>This will be a supporting sentence.</i></p>
<p>2. From the Article - <i>This will be a supporting sentence.</i> " . "</p>	<p>2. About the quote from the Article - <i>This will be a supporting sentence.</i></p>
<p>3. From the What's Sprouting Lab Data Graph - (what does the graph show) <i>This will be a supporting sentence.</i> " . "</p>	<p>3. From the What's Sprouting Lab Data Graph - (explain what you see in each line of the graph) <i>This will be a supporting sentence.</i></p>
<p>S - Sum it all up. <u>Restate</u> the question or prompt as a conclusion.</p>	<p>Your concluding sentence:</p>

What's Sprouting Lab TDA Guided Notes

COMPLETED?

- In a previous lesson, you were to COMPLETE the What's Sprouting Lab TDA – Guided Notes document.
- You will **NOW** use this document to complete the What's Sprouting Lab TDA Assignment in the course!