

What's the Limit?

Summary

Students will grow radishes and experiment with the critical amount of water that they need to survive.

Time Frame

1 class periods of 60 minutes each

Group Size

Small Groups

Materials

- [student sheet for Lab A](#)
(attached)
 - [student sheet for Lab B](#)
(attached)
- per class:
- 100 radish seeds
 - 3 ounce drink cups
 - potting soil
 - beakers
 - graduated cylinders

Background for Teachers

Time Needed:

50 minutes for the set up and 10 minutes daily for observations and follow up during the next 2-3 weeks.

Instructional Procedures

Procedures for application lab (A):

You may wish to sprout the radishes ahead of time or allow the students to do that. The seeds need to be kept wet for several days on a paper towel or soil mixture to germinate. Students should work in groups and each group will grow three seeds in the varying amounts of water. Students should write their observations and when the results become clear, the experiment should be ended. Compare the results from each group. Hopefully, enough groups will agree to the amount needed for radish growth to draw a conclusion. Allow time for students to complete the analysis and conclusions.

Procedures for inquiry lab (B):

You may wish to sprout the radishes ahead of time or allow the students to do that. The seeds need to be kept wet for several days on a paper towel or soil mixture to germinate. Read the introduction with students and allow time for them to develop a question related to what limits the growth of radishes. You may wish to have them put their question on a white board and share and discuss them with the class. Students may use a variety of materials that you can supply or they may bring things from home also.

Allow time for set-up of the lab and follow-up observations. Students can make observations for as long as changes keep occurring.

Have each group present their findings before the analysis questions are answered.

Bibliography

Lesson Design by Jordan School District Teachers and Staff.

Authors

[Utah LessonPlans](#)