

Activity 5.2.3 Bean Sprouts

9. Count the total number of seeds that germinated in all three team members' seed rolls.
10. Calculate germination percentage rate by setting up the problem as a proportion. See the example at right.
11. Answer the analysis questions on the student worksheet.
12. Share your results with other groups in the class. Record the percent germination of each treatment team in Table 3 and answer the final analysis question.

G = number (#) of seeds germinated Y = percent (%) germination
$\frac{G}{30} = \frac{y}{100}$
$30y = 100G$
$y = \frac{100G}{30}$

Figure 2. Germination Calculation

13. Follow your teacher's instructions to dispose of materials and clean up your work area.

Conclusion

1. In this experiment, why were there seeds that did not germinate?

May have been submerged in water too long.

Beaker may have had too little water. May have been at top, been too dry.

2. What role does water play in seed germination?

Soften seed coat

3. What role does temperature play in seed germination?

Temperature must be within acceptable range. Too low seeds will not germinate.

4. Based on what you learned, what do you think are the best conditions for bean seed germination?

Warm, moist conditions.