

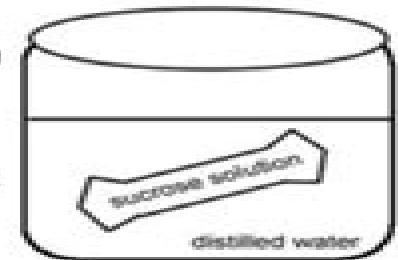
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AP BIOLOGY LAB: DIFFUSION AND OSMOSIS

In this lab, you will observe the process of osmosis and diffusion. You will also learn how to calculate water potential. If you are not familiar with these concepts, make sure that you have looked them up in your textbook. If you don't know what these terms mean, this lab is not going to make sense to you.

OBJECTIVES

- Investigate the processes of osmosis and diffusion in a model of a membrane system
- Investigate the effect of solute concentration on water potential as it relates to living plant tissues



Exercise 1 - Osmosis Across a Membrane

- Obtain 6 strips of dialysis tubing and tie an knot in one end of each.
- Pour approximately 25 mL of each of the following solutions into separate bags.

Distilled Water	0.4 M sucrose	0.8 M sucrose
0.2 M sucrose	0.6 M sucrose	1.0 M sucrose

- Remove most of the air from the bag (but leave a little bit of space) and tie the baggie.
- Rinse the baggie carefully in distilled water to remove any sucrose that may have spilled and carefully blot.
- Record the mass of each baggie.
- Fill six 250 mL beakers two-thirds full with distilled water and place a bag in each of them. Make sure that you record which baggie is which.
- Let the bag sit for 20-30 minutes. (While this is running, you may want to begin exercise 3.)
- After 20-30 minutes, remove the baggies from the water, and carefully blot dry.

Predict what you think will happen during the experiment. (Think about which bags will lose water and which will gain water.)

- Measure the mass of each baggie and record.
- To calculate: percent change in mass = $(\text{final mass} - \text{initial mass}) / \text{initial mass}$. Then multiply answer by 100.
- Gather the data from the other groups in the class and find the class average for each baggie.

Contents in Bag	Initial Mass	Final Mass	Mass Difference	% Change in Mass	Average
Distilled Water					
0.2 M					
0.4 M					
0.6 M					
0.8 M					
1.0 M					

- Graph the results for both your **individual data** and **class average** on a graph. The independent variable is on the X axis, and the dependent variable is on the Y axis.

Ap Biology Diffusion And Osmosis Lab Answers

Deborah T. Goldberg



Ap Biology Diffusion And Osmosis Lab Answers:

Cracking the AP Biology Exam Kim Magloire, Princeton Review (Firm), 2004 This updated series by Princeton Review helps students pass the challenging Advance Placement Test with targeted study for each exam of the series *AP Biology For Dummies* Peter J. Mikulecky, Michelle Rose Gilman, Brian Peterson, 2008-06-02 Relax The fact that you're even considering taking the AP Biology exam means you're smart, hard working and ambitious All you need is to get up to speed on the exam's topics and themes and take a couple of practice tests to get comfortable with its question formats and time limits That's where AP Biology For Dummies comes in This user friendly and completely reliable guide helps you get the most out of any AP biology class and reviews all of the topics emphasized on the test It also provides two full length practice exams complete with detailed answer explanations and scoring guides This powerful prep guide helps you practice and perfect all of the skills you need to get your best possible score And as a special bonus you'll also get a handy primer to help you prepare for the test taking experience Discover how to Figure out what the questions are actually asking Get a firm grip on all exam topics from molecules and cells to ecology and genetics Boost your knowledge of organisms and populations Become equally comfortable with large concepts and nitty gritty details Maximize your score on multiple choice questions Craft clever responses to free essay questions Identify your strengths and weaknesses Use practice tests to adjust your exam taking strategy Supplemented with handy lists of test taking tips, must know terminology and more AP Biology For Dummies helps you make exam day a very good day indeed Kaplan AP Biology 2016 Linda Brooke Stabler, Mark Metz, Allison Wilkes, 2015-08-04 The Advanced Placement exam preparation guide that delivers 75 years of proven Kaplan experience and features exclusive strategies, practice and review to help students ace the NEW AP Biology exam Students spend the school year preparing for the AP Biology exam Now it's time to reap the rewards money saving college credit, advanced placement or an admissions edge However, achieving a top score on the AP Biology exam requires more than knowing the material students need to get comfortable with the test format itself, prepare for pitfalls and arm themselves with foolproof strategies That's where the Kaplan plan has the clear advantage Kaplan's AP Biology 2016 has been updated for the NEW exam and contains many essential and unique features to improve test scores including 2 full length practice tests and a full length diagnostic test to identify target areas for score improvement Detailed answer explanations, Tips and strategies for scoring higher from expert AP teachers and students who scored a perfect 5 on the exam End of chapter quizzes Targeted review of the most up to date content and key information organized by Big Idea that is specific to the revised AP Biology exam Kaplan's AP Biology 2016 provides students with everything they need to improve their scores guaranteed Kaplan's Higher Score guarantee provides security that no other test preparation guide on the market can match Kaplan has helped more than three million students to prepare for standardized tests We invest more than 4.5 million annually in research and support for our products We know that our test taking techniques and strategies work and our materials are completely up to date for

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