

**SUGGESTIONS FOR ASSESSMENT** Students will be assessed by their experimental design, their poster, and their presentation. For grading purposes I gave a progress check for the design phase. I looked to see if they wrote down a hypothesis and if it was actually a hypothesis (5 points.), if they measured anything about their egg after prompting (5 points.), then completion of their design (10 points.). If the hypothesis is incorrect tell them so they can adjust the phrasing (not the content!!) for points on the poster. As for the Poster (55 points) and Presentation (25 points) refer to the rubric given in the student section. Students will be assessed for specific content retention upon completion of the chapter.

**REFERENCES AND RESOURCES**

1. *Diffusion*  
<http://hyperphysics.phy-astr.gsu.edu/hbase/kinetic/diffus.html>  
Explanations of diffusion, osmosis and more. The information is accurate though the author is unclear. Accessed on August 2, 2007.
2. *Diffusion, Osmosis, and Cell Membranes*  
<http://biology.arizona.edu/sciconn/lessons/mccandless/reading.html>  
Background information of diffusion and including passive and active transport developed by the Department of Biochemistry, University of Arizona. Accessed on July 25, 2007.
3. *Everyday Mysteries*  
<http://www.loc.gov/rr/scitech/mysteries/wrinkles.html>  
Searchable website run by the Library of Congress. This link answers the question “why do fingers and toes wrinkle in the bathtub?” Accessed on August 2, 2007.
4. *How do Hypotonic, Hypertonic, and Isotonic Solutions Affect the Water Movement of a Cell?*  
<http://www.the-aps.org/education/k12curric/activities/pdfs/halverson.pdf>  
A lab using an egg and various solutions to show the volume change caused by diffusion written by Michael Halverson for the American Physiological Society Frontiers in Physiology Fellowship. Accessed on July 26, 2007.
5. *Investigating Isotonic, Hypotonic, and Hypertonic Solutions*  
<http://www.accessexcellence.org/AE/ATG/data/released/0487-AltonBiggs/index.html>  
A lab illustrating diffusion using onions, elodea, salt water, and methylene blue written by Alton Biggs. Accessed on July 25, 2007.
6. *Kids Health for Kids*  
[http://www.kidshealth.org/kid/talk/qa/wrinkly\\_fingers.html](http://www.kidshealth.org/kid/talk/qa/wrinkly_fingers.html)  
A website devoted to providing doctor-approved information on kids health. This link answers the questions “why does my skin get wrinkly in water?” Accessed on August 2, 2007.

**REFERENCES  
AND  
RESOURCES**

7. *Osmosis Tutorial*  
[http://edtech.clas.pdx.edu/osmosis\\_tutorial/](http://edtech.clas.pdx.edu/osmosis_tutorial/)  
This is an online tutorial explaining osmosis and diffusion including discussion of the plasma membrane with e-quiz. It was created by Portland State University. Accessed on August 2, 2007.
8. *Transport In and Out of Cells*  
<http://www.emc.maricopa.edu/faculty/farabee/BIOBK/BioBooktransp.html#Cells%20and%20Diffusion>  
An explanation of osmosis and diffusion with pictures and discussion of hypo- hyper- and isotonic solutions. It is an excerpt from an online biology book facilitated by Estrella Mountain Community College. Accessed on August 2, 2007.
9. *Unit on Cell Function*  
<http://www.akscience.org/assets/advinstitute/Unit%20on%20Cell%20Function.pdf>  
A unit including progressive labs illustrating diffusion of molecules including relation to surface area written by Kay Holmes and Cecilia Miller. Accessed on July 25, 2007.
10. *Wrinkled Hands*  
<http://www.alaska-in-pictures.com/wrinkled-hands-3546-pictures.htm>  
A website of pictures of Alaskan frontier and wildlife. Accessed on August 2, 2007.

*Images on Student Worksheets came from Clip Art files on Microsoft Word Version 2007.*