



TEACHING TIPS OF THE MONTH FROM MC FACULTY



Brought to you by TIDES and PALS December 2015

The Faculty Program for Active Learning in STEM (GTSTEP/PALS) (www.montgomerycollege.edu/gtstep), the Teaching to Increase Diversity and Equity in STEM (TIDES - <http://cms.montgomerycollege.edu/TIDES/>) grant project, and ELITE (<http://cms.montgomerycollege.edu/elite/>) are happy to bring you the "Student Engagement Tips of the Month". Both PALS (with its focus on active learning in STEM) and TIDES (with its focus on active learning and culturally sensitive pedagogy) seek to incorporate highly engaging learning activities for diverse student populations into STEM courses. However, as you will see, many of these activities are not STEM-specific and can be applied to any course. We also welcome your general feedback about this publication, which you can send to tides@montgomerycollege.edu.

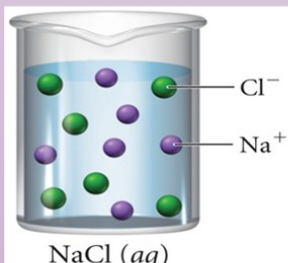
Theme: Focus on Diagrams in Textbooks

Tip 1: Learning to Read the Diagrams

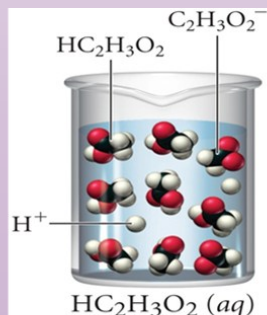
Goals: To recognize that the non-text portions of a textbook are important features and contain useful information.

Description: Design a worksheet where students must use a diagram (drawing, graph, comic, map, etc.) to answer questions.

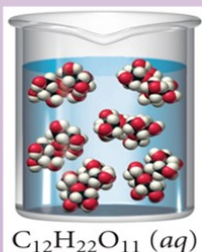
Example: In a chemistry class, the concept of electrolytes is introduced using diagrams. Students are asked to describe how to differentiate between a strong electrolyte, a weak electrolyte, and a nonelectrolyte based solely on what they observe in the following diagram.



strong electrolyte



weak electrolyte



nonelectrolyte

Learning to Read Diagrams cont'd

Total Time: 5 minutes

Submitted by: [Dr. Virginia Miller](#)

Tip 2: Remembering to Read the Diagrams

Goals: To encourage students to pay attention to the non-text portions of a textbook.

Description: Let students know that the tables and illustrations in the books are a major reason why textbooks are so expensive; that "not checking them out" is like not getting their money's worth! They must treat the references to the figures and tables in the text (e.g. figure 10.2; table 12.6) as STOP SIGNS and they should never run the stop signs. Therefore as they read they must stop at the "stop signs," go to the figure and study it in detail before they continue reading.



Total Time: 1 minute

Submitted by: [Dr. Abdulai Barrie](#)

For more tips, visit the [Teaching Toolkit](#).