

QUANTIFYING CASES DESIGN PRODUCT 1 PLACES FOR CASES

✓ What Case do you want to modify?

National Center for Case Study Teaching in Science: Clearinghouse for Case Studies in Science <http://sciencecases.lib.buffalo.edu/cs/>

PBL Clearinghouse: A collection of problems and articles to assist educators in using problem-based learning. <https://primus.nss.udel.edu/Pbl/>

CASES Online

More than 400 investigative lessons or “cases,” for K-12, undergraduate, and graduate science. Free registration enables you to download cases and support materials. <http://www.cse.emory.edu/cases/>

Investigative Case-Based Learning

Case modules developed by faculty participants in the Investigative Case-Based Learning workshops. <http://bioquest.org/icbl/>

UNIVERSITY OF WISCONSIN
RIVER FALLS

Case It!

Case-based learning in biology

Case It! 2012

This simulation enables students to explore molecular data with a variety of biotechnological tools *within the context of short cases*. Students can also input their own data as they extend or make new cases. <http://www2.uwrf.edu/caseit/>

**LEARNER CHARACTERISTICS
QUANTIFYING CASES DESIGN PRODUCT #2**

✓ List characteristics of your students—developmental, preferred learning styles, interests, group dynamics, prior knowledge of concepts, career goals.

CURRICULUM OUTCOMES DESIGN PRODUCT #3

✓ List specific curriculum outcomes your students will achieve through the redesigned learning unit.

For example you might choose one or more of these:

- Apply scientific methods.
- Inquiry and analytical skills.
- Data gathering skills in the lab or field.
- Obtain, critically evaluate, and communicate biological information.
- Calculate Chi Square
- Construct and interpret a graph
- Run a correlation analysis and interpret it
- Run an ANOVA and interpret it
- Use graphic analysis tools
- Use DNA sequence data to construct evolutionary relationships

Use different levels of Bloom's taxonomy if you can.

http://www.odu.edu/educ/roverbau/Bloom/blooms_taxonomy.htm

See the Bloom's handout for describing outcomes.



**MISCONCEPTIONS & ASSESSMENT
QUANTIFYING CASES DESIGN PRODUCT #4**

✓ Go to AAAS assessment site, <http://assessment.aaas.org/pages/home>

Choose topics related to your discipline. Construct an item bank of important concepts. List misconceptions that you think are relevant to your students here.

Diversity and Inclusion
QUANTIFYING CASES DESIGN PRODUCT 5

Inclusive Teaching means teaching in ways that do not exclude students, accidentally or intentionally, from opportunities to learn. It can mean using a diversity of materials: visual, auditory, kinesthetic etc.

For the concepts or units you are working on, list some ways you can make the unit inclusive. Visit

<http://www.cirtl.net/diversityresources>

<http://www.cirtl.net/ltda/collection>

Choose one or more diversity elements to include.

**PERFORMANCE ASSESSMENT AND SCORING RUBRIC
Design Product #6**

Specify two or three “along the way” assessments you will insert as your students work on the unit/problem/concept.

Specify the final, authentic performance assessment at the end of your problem unit in which students will demonstrate what they know, can do and value via presentations of their solution(s) to the problem.

Sketch out a beginning rubric for assessing students’ final performance. What criteria state your expectations for a successful performance? What evidence will demonstrate that students have learned? BE SURE the rubric aligns with your curriculum outcomes and standards.

RESOURCE LIST
Design Product #9

List resources you have used in designing the unit and that you plan students will use in their inquiry. Resources may include books, articles, web sites, videos, people (contact information), agencies, etc. You will likely add to this list as you implement the unit.