What are Digital Learning Objects?

Digital learning objects are small, modular, discrete units of learning designed for electronic delivery and use. The concept “learning object” has its origins in a modular approach to reusable digital instructional materials:

...Reigeluth and Nelson (1997) suggest that when teachers first gain access to instructional materials, they often break the materials down into their constituent parts. They then reassemble these parts in ways that support their individual instructional goals. This suggests one reason why reusable instructional components, or learning objects, may provide instructional benefits: if instructors received instructional resources as individual components, this initial step of decomposition could be bypassed, potentially increasing the speed and efficiency of instructional development. ”1

To facilitate reuse with a minimum of effort, a learning object is “packaged” to include a lesson, an activity, and an assessment. The most reusable learning objects will have a learning outcome that is concrete and fundamental to a broad range of courses. Here are some potential LOs:

- Chemistry: a video illustrating how to set up a Bunsen burner, with a safety quiz (activity and assessment combined here)
- Biology: a video illustrating how to prepare a gram stain; a Flash-based interactive virtual lab students can use to practice; a quiz or other assessment of their performance
- Linguistics: an illustrated lesson on Grimm’s Law and an interactive exercise, with assessment, allowing students to identify consonant changes between cognates
- Educational Psychology: an illustrated lesson on social cognitive theory, followed by a short video of classroom interaction which the students analyze

Some examples:


---

• Visual Arts Education: Positive vs. Negative Space (animated illustration, activity and assignment) http://www.artsconnected.org/toolkit/watch_space_positive.cfm

More resources:
• WISC-Online: http://www.wisc-online.com/ListObjects.aspx
• PhET Interactive Simulations (University of Colorado, Boulder) http://phet.colorado.edu/
• MERLOT (developed by CSU) http://www.merlot.org/Home.po