## Writing Content Learning Objectives for POGIL Activities

POGIL activities have specific content learning objectives. Content learning objectives are statements of what students will be able to "do" as a result of completing the activity. Using observable action verbs (rather than general terms like "know" or "understand"), will result in more specific objectives.

High quality content learning objectives should have the following characteristics:

- Clear Understandable language for the intended student audience. Students have the pre-requisite knowledge and skills.
- Achievable There is a very good likelihood that students will be able to successfully accomplish the objective with the materials provided.
- Learner-centered

   Focused on student actions and abilities. Considers the student's background and experiences. Uses words that indicate what students will do. Focused on learning resulting from the activity. NOT focused on pedagogical tools or content.
- Measureable/Observable Student learning can be observed through appropriate assessment.
- **Specific** Concise and well defined as to what students will do.

Authors should specifically focus on these objectives when writing a classroom activity. While an instructor may or may not choose to explicitly state (aloud) the content learning objectives within the activity, these objectives must be clearly indicated in supplemental teachers' materials and are required submitting an activity for feedback from The POGIL Project.

The following are some example statements detailing various content objectives:

- Students will **identify** the components of the learning cycle in a POGIL activity. (See Learning Cycle MetaActivity)
- Students will compare the use of bond enthalpies and heats of formation to calculate a heat of reaction. (See Enthalpies of Formation Activity)
- Students can **describe** in words and in a diagram how the valves in the heart control the one-way flow of blood. (See Circulatory System Activity)
- Students can **predict** the outcome for a bank and its investors when multiple loans are not paid in full during an economic downturn. (See Bank Loan Profit Model Activity)

An effective activity can have either a single learning objective or multiple learning objectives. However, from experience, we have discovered that an activity written to achieve more than three content learning objectives will overwhelm students in terms of their cognitive processing and take longer than the typical class time of 40 or 50 minutes. Hence, an activity designed for use in a typical one-hour class meeting will normally have no more than three content learning objectives.

