

Assessing Learning during Hands-On Activities

SUMMARY

Assessment has important roles in measuring student achievement of learning objectives, discovering misconceptions among students, and determining the effectiveness of a curriculum. Assessing learning during hands-on activities requires measuring both factual knowledge and student understanding which is acquired through the activity or project. This sheet highlights practical ideas for assessing student learning during hands-on activities.

AUDIENCE

All educators.

WHAT TYPE OF ASSESSMENT TOOL DO I USE FOR HANDS-ON LEARNING?

The best tool for hands-on activities is a **performance-based assessment** where students work with materials to answer questions that cannot be acquired by other means.

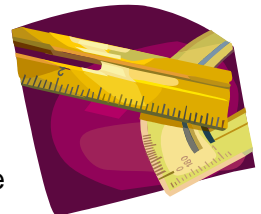


ASSESSMENTS

It is often useful to conduct an assessment before the activity to evaluate prior knowledge. This could include using a KWL chart (Know, Want to Know, Have Learned), or having the students draw a picture or write a paragraph about the topic to be covered.

IMPLEMENTING THE ASSESSMENT

1. **Materials should be familiar to students.** Example: Students should know about protractors before being asked to use them to measure angles.
2. **Questions asked in a new or different context.** Example: Have students take measurements of unfamiliar objects.
3. **Design questions using vocabulary and concepts** learned through material use
4. **Simple rubrics** for evaluating demonstrations or responses (students help make these!)
5. **Have students explain** why certain events or situations occur
6. **Provide clues** without divulging the answers
7. **Students explain concepts** in their own words
8. **Students use materials to demonstrate concepts**
9. **Monitor level of engagement.** Are the students actively working with the materials?
10. **Short quizzes or tests** for evaluating ability to transfer knowledge into written form. (Testing should come *after* adequate demonstration of performance with materials)



GUIDED REFLECTION

1. Look back – Ask the students **what worked** during the activity or project?
2. Look forward – ask them what **skills they practiced**. How can they use those skills in the future?

RELATED RESOURCES

Examples - http://www.ascd.org/publications/books/196021/chapters/What_is_Performance-Based_Learning_and_Assessment,_and_Why_is_it_Important%C2%A2.aspx