LESSON PLAN: TRIGONOMETRY IN LAND SURVEYING

NYSAPLS, Inc. 146 Washington Avenue, Albany NY 12210

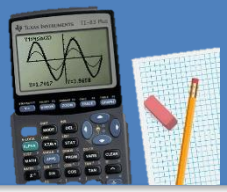
Trigonometry in Land Surveying

Objectives

1. Introduce the use of trigonometry in the land surveying industry.
2. Learn practical uses for trigonometry by working individually on NSPS problems to apply principals of trigonometry to real-life land surveying questions.
3. Familiarize students with the NSPS Trig-Star Scholarship Program

Materials

1. **Trig-Star booklet of questions or sample tests (https://trig-star.com/resources/)**
2. **Calculator**



Procedure

1. First, introduce examples of how and why trigonometry is a commonly used mathematical tool in the land surveying industry.
2. Then, walk the class through an NSPS Trig-Star example problem together to give them an idea of what the problems look like.
3. Once an example is completed and the class has a handle on the basic concept, have all students open up to a specific section of 5-10 problems. In groups of 2-3 students, let them work together on these problems.
4. Once all the groups have completed the questions, go over the answers and how to arrive at the correct answers.

Wrap up/Questions

1. Ask students the following reflection questions to discuss in small groups:
    a. After completing some questions, why do you think trigonometry is such an important tool in the land surveying industry?
    b. Are there other aspects in land surveying that we didn't cover that trigonometry could be a useful tool?

2. Hand out NSPS brochures on Trig-Star Scholarship with NYS Contact information. https://trig-star.com/