Water Quantity Station

This video is going to help guide you through the process of hosting the **Water quantity Station.**

The objectives of the water quantity / streamflow measurement station are to:

- Learn an approachable method for measuring and calculating stream discharge
- Draw important connections between streamflow and watershed health
- Discuss stream morphology, the hydrologic cycle, and how humans utilize and alter our natural waterways

The bullet list / steps

- When the students arrive, introduce yourself and the other station members by giving your name, career, and agency
- Ask students to define “water quantity” and prompt them to answer why streamflow is important to the watershed
- State the goals and objectives of the streamflow measurement station

1. Discuss the common unit of measure, cubic feet per second, which is critical when conveying ideas universally understood in math and science. One example students can relate to is that one cubic foot per second is equal to 299 kitchen faucets
2. Using visual aids, discuss how the streamflow measurement activity will be conducted
    - Describe the site layout.
    - Familiarize students with the field data worksheet
    - And explain the tools to be used when measuring
3. Divide students into small groups to measure the following:
    - stream length
    - stream width at three locations
    - stream depth at three locations
    - and three timed trials of floating an object through the stream reach
    - Share all student results
4. Distribute calculators and guide the students through the calculation while discussing potential limitations

In conclusion, summarize the lessons learned at the Water Quantity Station:

There are many factors, including annual mountain snowpack, sediment and woody debris deposits, human alterations to a stream, and climate change that constantly reshape the stream and its flow. Think about how these changes can impact the discharge of a stream corridor and therefor impact the daily lives of many living beings, including humans.