

Water Quality 101 – Would You Drink It?

Classroom Presentation Outline – 9th through 12th Grade



Program Overview: Students are given a mission to determine if they would drink a mystery water sample. They gain an appreciation for the value of water by learning the history of water quality, understanding the source and complexity of their water supply, and how the water it is treated, distributed and tested.

Section A - Introduction (5 min):

- Program agenda
- Mission overview

Section B - History of Water Quality (10 min.)

- History of water treatment
- Worldwide water quality
- Activity

Section C - Local Water System (10 min.)

- Local system development
- Water Sources – local, transmountain, first use water
- Water Treatment –hands-on coal, sand, and gravel samples
- Distribution System - keeping quality good through the distribution system – pass around pipe samples

Section D - Water Quality (25 min.)

- Water quality regulations in the US
- System sampling and analysis
- Mystery sample testing (pH, turbidity, TDS, chlorine)
- Would you drink it?

Section E - Water Quality Discussion (10 min.)

- How can you help water quality?
- Is bottled water better? – bottled water opinion activity, time permitting
- Conclusions

Total program time: 60 minutes

Optional Add-ons: *classroom* - wastewater treatment process; *field trip* - laboratory tour or water treatment plant tour