



8th Grade

SCIENCE BASIC: Hitting the Mark - The students will distinguish between accuracy and precision, investigate the relationship between accuracy and precision as it relates to water quality data collection, write clear procedures, and recognize the limitations of those procedures. Students work in small groups to create a structure and/or method to make the clay ball hit the target. Then they write the procedure out step by step. The groups then rotate and have to use the other group's procedure to get the same results. This is a fun hands-on interactive way to teach accuracy and precision!

From to Place to Place – Students will design a distribution system to get water from the water treatment plant to homes. Depending on how students design the system, they may need some type of “force” to move the water. The vocabulary includes gravity, hydraulics, pressure, PSI, and velocity. Students will learn how a distribution system works, how to read a map of the distribution system, how to calculate how fast water can get to their home, and what the layout of water mains says about the population of an area. **Standards: S8P3**

Water Quality - Students will learn about some water quality measures such as temperature, pH, turbidity, conductivity, alkalinity, and dissolved oxygen. The students will work together with field kits to test a water sample. The DO (dissolved oxygen) test, which is the Winkler Method does an excellent job of illustrating the formation of a precipitate. Other field tests do a good job of illustrating a chemical change that is then measured colorimetrically. **Standards: S8P1**