Animation: Measurement

FOR THE TEACHER

Summary
In this animation, students will become familiar with three forms of measurement, including length, mass and volume. Various units of measurement will be presented for comparison, and several conversion calculations will be demonstrated using dimensional analysis.

Grade Level
High and Middle school

Objectives
By the end of this animation, students should be able to
- Recognize common units of measurement used for length, mass and volume.
- Understand that different units of measurement can be used to communicate a value.
- Identify appropriate conversion factors necessary to change between units of a measurement.
- Distinguish between the forms of measurement used for length, mass and volume.

Chemistry Topics
This animation supports students’ understanding of
- Quantitative Chemistry
- Measurement
- Dimensional Analysis

Time
Teacher Preparation: minimal
Lesson: 10-30 minutes

Materials
- Computer and projector with internet access
- https://teachchemistry.org/classroom-resources/measurement-animation

Safety
- No specific safety precautions need to be observed for this activity.

Teacher Notes
- This animation can be used to introduce measurement, unit conversion, and dimensional analysis to students.
- All of the animations that make-up the AACT Animation collection are designed for teachers to incorporate into their classroom lessons. Intentionally, these animations do not have any sound, so that a teacher can speak while the animation is playing, and stop the animation as needed to instruct.
- We suggest that a teacher pause this animation at several points, including the “Challenge Your Knowledge” questions to give students the opportunity to complete the calculation questions.
- There are several classroom resources from the AACT Library that may be used to further teach this topic:
  - Measurement Unit Plan
  - Measuring Volume Simulation
  - Mysteriously Melodramatic & Maniacal Metric Measurement
  - Dimensional Analysis Showdown
  - Math and Measurement
- There is no student handout associated with this animation.