

Advanced Scientific Concepts

More Detail in Video Instructions

Older children will love exploring more advanced scientific concepts like volume, vacuums, and surface tension!

Exploring Volume

Comparing A Test Tube and Beaker - Ask which one is bigger. Looks can be deceiving, since the test tube can look bigger, but holds much less liquid than the beaker.

Measuring Millimeters - Each of the beakers and the dropper lids have the measurements on them, so it is easy to compare and measure out millimeters. This is a great introduction to the metric system.

Practice Math With Volume (addition, subtraction, multiplication) - Using the various sizes of beakers, you can experiment with different math concepts.

Additional Scientific Concepts

Exploring a Vacuum - Using a dropper, explain that when you squeeze it, all of the air goes out and allows you to bring in the liquid.

Exploring Surface Tension - Show how the water molecules are attracted to each other and they don't want to spill over. This can be demonstrated with the dropper and test tube. Add drops of water gradually, watching as it forms a dome. You can show that if you add too much water, it breaks the tension and the water spills over.

Floating Paperclip - Carefully place the paperclip on the surface of the water, demonstrating how it can float. This may take a little practice to get it to float, but fear not, it does work. If you drop a little water on top of the paperclip, show how it will sink.