

## School Spear-It!

- Problem/ Purpose/ Focus
- Hypothesis (If, Then...)
- Materials
  1. 5 pencils with round edges
  2. 1 Large plastic Ziploc bag
  3. Water
  4. A few paper towels
- Procedure
  1. Start by sharpening the pencils.
  2. Fill the bag 1/2 full with water and then seal the bag closed. Pose this question to your dinner guests, “What would happen if I tried to push one of these pencils through the bag of water?” Will the water leak out and make a giant mess?”
  3. Here comes the scary part. Hold the pencil in one hand and the top of the bag in the other hand. Push the pencil right through one side of the bag and half way out the other side.
  4. Continue to rekindle your “spear-it” for science by jabbing the remaining pencils through the bag.
  5. When you are finished, remove the pencils while holding the bag over the sink. Throw away the bag and dry the pencils.
- Observations (Qualitative/Quantitative)
- Conclusion/Results
- Questions/Concerns

How does it work?

The plastic bag is made out of long chains of molecules called polymers. This gives the bag its stretchy properties. The sharpened pencil slips between the molecule strands without tearing the entire bag. Believe it or not, the long chains of molecules seal back around the pencil to prevent leaks. Now that’s the Spear-It of science!