

Name: _____ Date: _____

Evaluation & Enhancement Worksheet **Answers**

Error

In this experiment, what do you think some potential sources of error?
How would these affect your results?

Non-horizontal gun: Could increase or decrease the distance travelled, lead to an incorrect horizontal velocity and ultimately skewed pressures.

Non-ideal fluid: The fluid (water) is not perfectly inviscid, nor is it purely steady. Therefore, the Bernoulli equation only models the flow approximately.

Non-uniform pumping: Changes the actual pressure each time.

What does it all mean?

What do your graphs look like? Imagine you are an engineer designing the next generation of squirt guns. You want them to shoot further than ever with fewer pumps. How can this data help you in your designs?

This data can help you decide what sort of pressure tolerances your toy should have, as well as how much pressure per pump you should design into the toy.