

Plop, Plop, Fizz, Fizz

Purpose

- To develop observation and data gathering skills.
- To develop an understanding of the scientific method.
- To develop an understanding of chemical reactions and gases.

Introduction

1. Obtain a film canister and a pack of antacid tablets from your teacher.
2. Place a small amount of water in your container (about 10 mL). Break your tablet into fourths and put one piece in the water. Quickly put the lid on your container.
3. Sit back and watch your container.

What happened?

Why do you think this happened?

Experiment

Design an experiment to control how long it takes for the lid to pop off your container. You want your lid to pop off in the time range of 15-30 seconds. Consider these questions:

What might affect how long it takes for the lid to pop off?

How will you measure your amounts?

How will you know how long it takes for the lid to pop off?

Competition

Your teacher will give you a slip of paper on which a time is listed. Using the data you collected in your experiments, measure the amount of water and tablet that you think you will need for your lid to pop off in the time listed on the sheet of paper. When you are ready to test your hypothesis let your teacher know.

How close were you to the time listed on the paper?

What made it hard to get the exact time?

If you had to do your experiment over again, what would you do differently?

