

Name _____ Class _____ Date _____ 11/2019

Laboratory Techniques

Activity 02-15

Controlled Experiments - Home Medicines

Design a controlled experiment to determine what percentage of the home medicines provided were acids. Attach your analysis to the typed lab report.

Problem: What percentage of the home medicines tested were acids?

Hypothesis: (Variable) _____
has an affect on the percentage of the medicines that were acids.

Materials supplied:

vinegar (acetic acid)	blue litmus paper
distilled water	mortar and pestle
masking tape	red litmus paper
small beakers (30 mL)	
several medicines selected by the instructor (aspirin, Maalox, Roloids, Tums, acetaminophen, Milk of Magnesia, Peptobismol)	

Solid medicines must be ground up with the mortar and pestle, then placed in the beaker and mixed with about 5 mL of distilled water. For consistency, the medicines in liquid form must be mixed with the same amount of distilled water.

Be sure to wash and dry the mortar in between medicines in order to prevent contamination.

Procedure (third person, past tense):

Variables:

Independent Variable:

Dependent Variable:

Constants:

Groups:

Control Group:

Experimental Group:

Method:

Data and Observations:

Table of litmus paper results (this is the data that will be analyzed)

Observations of the medicines given

Analysis:

Math:

Percent

Angles in a Circle

(the analysis table will be the same as the graph table)

Graph (paragraph):

Conclusions (Claim and Evidence):