

Name _____ Date _____ Period _____

NEUTRALIZING ANTACIDS WITH SOUR PATCH KIDS

PURPOSE:

The purpose of this lab is for students to determine how many sour patch kids are needed to neutralize 20 milliliters of liquid antacid.

HYPOTHESIS:

PROCEDURE:

1. Pour 20 milliliters of liquid antacid into a small beaker or flask.
2. Measure the pH using the pH test strips. Record your data.
3. Add 15 drops of universal indicator. Swirl to mix.
4. Determine the pH according to the color of the universal indicator. Record your data.
5. Add sour patch kids, one at a time, and swirl to mix. After each one is added, determine the pH using both methods. Record your data.
6. Repeat step 5 until you have determined that the solution is neutral (pH=7).
7. Clean up: Pour the liquids down the drain and throw the sour patch kids in the garbage. Wash and dry your glassware. Return all of the supplies to your teacher. Keep your area neat because you are not little babies and are capable of cleaning up after yourselves like big boys and girls. 😊

RESULTS:

# of Sour Patch Kids	pH (Test Strips)	pH (Universal Indicator)
0		
1		
2		
3		
4		
5		
6		
7		
8		
9		

ANALYSIS QUESTIONS:

1. How many sour patch kids are needed to neutralize 20 milliliters of antacid liquid?
2. Did you get the same pH results using the two different methods? If you didn't, speculate on a reason why.
3. How many times more basic was the original antacid solution compared to the neutralized solution?
4. Look at the ingredients on the bag of sour patch kids. What ingredient do you think was responsible for neutralizing the antacid solution?
5. Look at unused sour patch kids. Do you think that they would be more effective at neutralizing antacid liquid if they were cut up into smaller pieces?
6. Look at the ingredients for tootsie rolls. Do you think that tootsie rolls would also neutralize the antacid solution? Explain your reasons.
7. Name some other candies that would likely neutralize the antacid solution. Explain why you chose them!
8. Name one or two ways in which this lab could be improved.