

Potions Class

Exploding Polyjuice Potion

What You Will Need for Potions Class:

- CAULDRON: Bowl, or tall glass
- Any cup/ small bowl
- 1/2 cup of POWDERED UNICORN HORN: Baking soda
- 1 cup of LEECH JUICE: Vinegar
- 5 drops of DRAGON BLOOD: Food coloring (or liquid watercolor)
- BASILISK VENOM: Liquid dish soap (a few drops / 1 squirt)
- A large spoon
- A few paper towels

DIRECTIONS

1. PLACE PAPER TOWELS DOWN ON YOUR LAB AREA, JUST IN CASE!
2. POUR ABOUT A 1/2 CUP OF POWDERED UNICORN HORN (BAKING SODA) INTO A CAULDRON (BOWL) AND SPREAD IT OUT ALL OVER.
3. MEASURE OUT ABOUT A CUP OF LEECH JUICE (VINEGAR), A FEW DROPS OF DRAGON BLOOD (FOOD COLORING) AND A FEW DROPS OF BASILISK VENOM (DISH SOAP), STIR YOUR POTION!
4. USE THE SPOON TO SCOOP THE POTION ONTO THE POWDERED UNICORN HORN IN YOUR CAULDRON. TIP: THE MORE VINEGAR YOU PUT IN THE BAKING SODA AT ONE TIME, THE MESSIER IT WILL BE... GO SLOW!

So why does this potion explode?

This is an example of an acid-base reaction. When something that is acidic (like vinegar) mixes with something that is basic (like baking soda), it reacts. In this case, the baking soda gets an extra proton from the vinegar, and the baking soda forms new compounds. These compounds are water and carbon dioxide. Since carbon dioxide is a gas, it forms little bubbles when it comes in contact with the soap. To speed up the reaction, we mixed the soap and vinegar together to get the soap as evenly distributed as possible, to get the best reaction possible! Pretty cool stuff!

Potion in a Lemon

*IF YOU DO NOT HAVE A BOWL, TALL GLASS, VINEGAR, OR DISH SOAP, THERE IS A SIMPLE VERSION WITH A LEMON, BAKING SODA, AND (FOOD COLORING OPTIONAL) THAT YOU CAN ALSO DO TO SEE A REACTION AT HOME!

DIRECTIONS

1. HAVE AN ADULT CUT OFF THE TOP $\frac{1}{4}$ TH OF A LEMON
2. TAKE THE LEMON AND DIRECTLY ADD A DROP OF DRAGON BLOOD (FOOD COLORING) INSIDE.
3. USE A FORK TO MIX UP THE DRAGON BLOOD INSIDE THE LEMON, UNTIL YOU CAN SEE SOME THE LEMON JUICE TURN COLOR.
4. THEN ADD SOME POWDERED UNICORN HORN (BAKING SODA)!

Why did this potion fizz but not explode?

If you did the lemon and baking soda experiment instead, the lemon is the acid in this reaction. It works the same way, but there is no soap to make the reaction more explosive, so the bubbles fizz a lot less with the lemon experiment.

Girl Scout Law: I will do my best to be honest and fair, friendly and helpful, considerate and caring, courageous and strong, and responsible for what I say and do, and to respect myself and others, respect authority, use resources wisely, make the world a better place, and be a sister to every Girl Scout.