

Science Project to Amaze

Here is a very interesting science project. This can be done by an adult, college student, high school student or even a middle school student. The middle or junior high age student should only do this with the supervision of an adult and maybe the help of an adult.

You are going to make a hypothesis if you can cut around a glass bottle with a string and break the bottle in half.

All you need for this science project are the following materials:

A glass bottle such as a beer bottle, a glass soda bottle or something like that.

A piece of string big enough to tie around the base of the bottle into a knot.

Acetone. This is the fingernail polish remover

A Match or Lighter

Rubber gloves.

Protective eye gear such as goggles

Put on your safety glasses and rubber gloves.

Put about two to three inches of water into the bottle.

Take the string and put it in a capful of acetone. Let it soak just for a moment so that the string is wet with the acetone.

Tie the string around the top part of the bottle, just where the neck of the bottle widens into the main part of the bottle body.

Make sure the string is tight around the bottle, and in a straight circle and stays in that one place.

Light the string all the way around with the lighter or a lit match. The string may burn for a moment with the fluid that is on the string. Once the flame goes out place the bottle in a bucket or sink filled with water. Hold onto the bottle and hold it upright as it is submerged. The water should cover all the way past where the string was on the bottle but does not have to completely cover the bottle.

Now put one hand on the bottom of the glass bottle and the other on the top mouth of the bottle and pull your hands toward each other and the bottle should break easily and in a complete ring around where the string was. Please be careful when breaking the glass to avoid getting cut by glass or any slivers that may fly away from the glass.

Your research for this project is how did the acetone and flame make the glass section have a weak area so that it could break?

This project is good to do as a demonstration at science fairs because it is a great science project.

About the Author

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