

A person is holding a large, bright green balloon. A yellow skewer is inserted through the balloon from the left side. The person's hands are visible, holding the balloon. The background is a grassy area. The text "Balloon Skewer" is overlaid in the center of the balloon in a bold, blue font.

Balloon Skewer

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Supplies needed

- Balloons
- Bamboo
- Cooking Skewers
- Cooking Oil or Dish Soap



Procedure

1. Inflate the Balloon

Inflate the balloon until it's nearly full size and then let about one-third of the air out. Tie a knot in the end of the balloon.

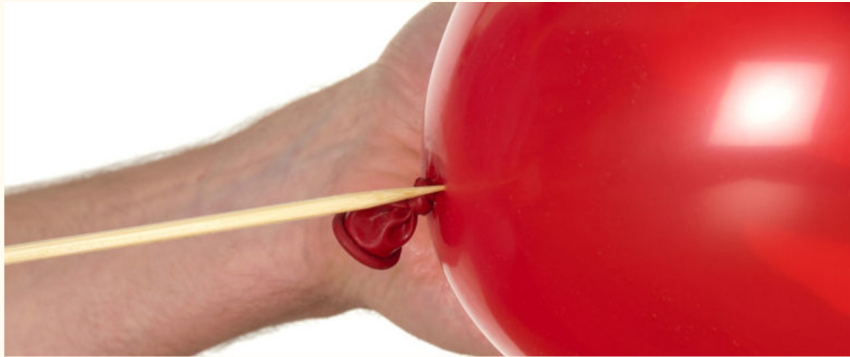


2. Preparing the Wooden Skewer

Coat the wooden skewer with a few drops of vegetable oil or dish soap (being careful not to accidentally get a splinter).



Procedure



3. Decide the place where to insert the Skewer

If you carefully examine the balloon, you'll notice a thick area of rubber at both ends of it (where you tied the knot and at the opposite end). This is where you will pierce the balloon with the skewer.

4. Inserting the Skewer

Place the sharpened tip of the skewer on the thick end of the balloon and push the skewer into the balloon. Be careful not to jab yourself or the balloon with the skewer. Just use gentle pressure (and maybe a little twisting motion) to puncture the balloon.

Procedure

5. Push the skewer

Push the skewer all the way through the balloon until the tip of the skewer touches the opposite end of the balloon, where you'll find the other thick portion of the balloon. Keep pushing until the skewer penetrates the rubber. Breathe a huge sigh of relief and take a bow!



Think and Talk about ...

Balloons are made of rubber-like materials, which is why they expand when filled with sufficient amounts of air. The long strands of polymer molecules create rubber-like structures by scattering the rubber molecules tightly and side by side.

When the balloon inflates, the air pressure makes the rubber molecules arrange themselves one above the other. This arrangement provides enough space for the balloon to inflate as long as we fill it with air. But if you reach its maximum elasticity point, the balloon blasts.

In this activity, we are selecting dense areas on the inflated balloon. In these areas, the rubber molecules are scattered least, which means there are tightly packed rubber molecules. So, when you insert a wooden skewer in these areas using gentle pressure, the balloon expands. And takes the skewer inside without blasting. Besides, the soap liquid works effectively as a lubricant and reduces the surface tension present on the balloon. It allows the skewer to enter inside the balloon quickly without leaking any air and popping the balloon. It is how we can insert a wooden skewer quickly and gently into an inflated balloon without blasting it.

Thank You!