

FANTASTIC PLASTIC: MAKE YOUR OWN RUBBER BAND

We take rubber bands for granted. In this activity you can make your own rubber band from liquid rubber and also test it for stretchiness.

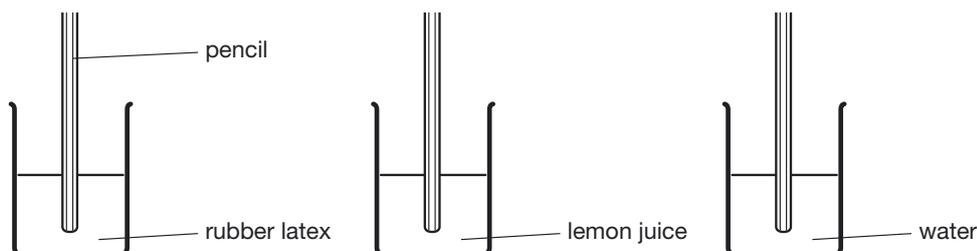


Some people have allergic reactions to liquid rubber latex. Wear protective gloves to avoid touching the liquid rubber, and wear eye protection. Do not inhale the fumes, which contain ammonia.

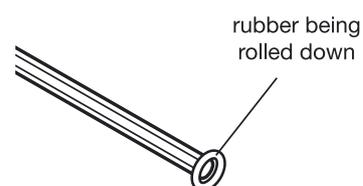
Task A

Making the rubber band

1. Dip the blunt end of your pencil into the rubber latex to a depth of 5 cm (no more!).



2. Remove your pencil – do not touch the rubber latex film.
3. Dip your pencil coated in rubber into lemon juice so that the rubber latex is covered.
4. Dip your pencil into cold water so that the rubber latex is covered.
5. Leave the rubber latex coating to dry for at least 10 minutes.
6. Roll the rubber coating off the pencil carefully forming a rubber ring – your rubber band. It's very easy to break the rubber band as you roll it off your pencil. You may have to practise this a few times before it works.
7. To make a larger diameter band, use a thicker cylinder, such as the neck of a glass bottle.



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Task B

Testing your rubber band

8. Hang the rubber band from a retort stand.
9. Hang masses of a few grams onto the band and measure the extension.
10. Plot a graph of extension (mm) against weight (N).
11. Does the rubber band stretch uniformly?
12. Does a wide diameter rubber band hold more weight than a small diameter rubber band?
13. Does a longer rubber band stretch more than a shorter one?

