Fantastic Elastic!

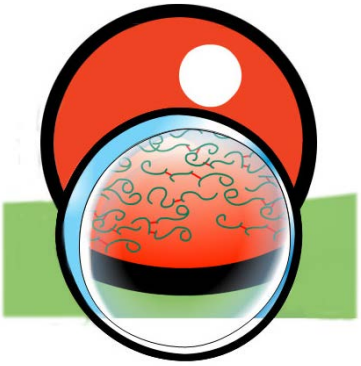
The great thing about rubber is that it can be squeezed or stretched but it always bounces back. That is the meaning of the word “Elastic.”

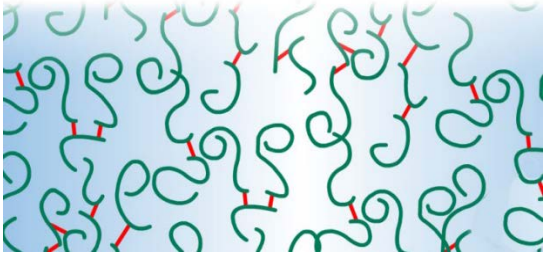
Super Sap!

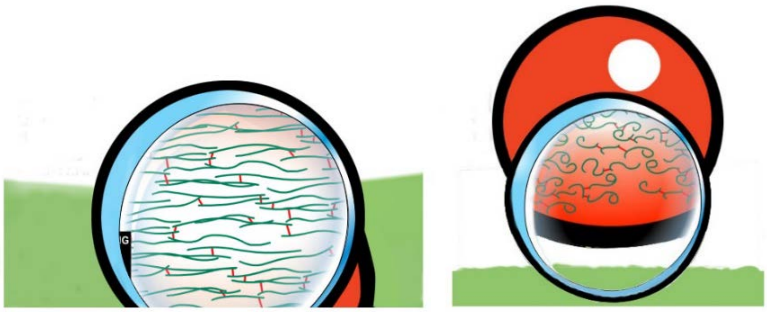
Some rubber is still made from the sap of a special type of tree that grows in South America, but most rubber is now made in factories.

Bouncing’s a Ball!

Whether the rubber comes from a tree or a factory, the rubber molecules have lots of folds and curls and connections.





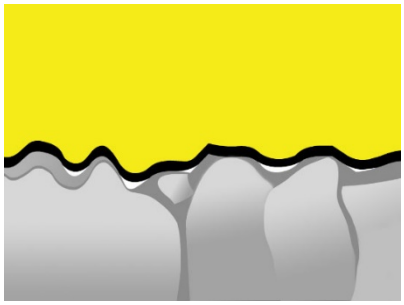


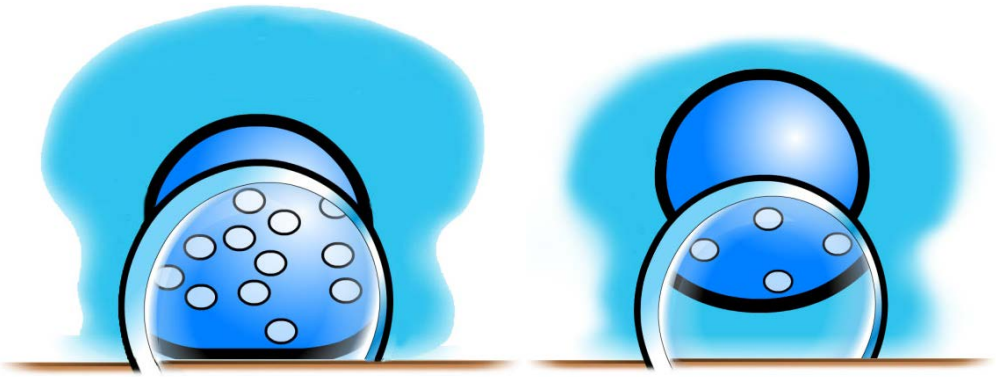
Bring on the Boing!

When a rubber ball is squeezed, the curly rubber molecules stretch out, but then quickly return to their curlier shape which makes the ball bounce.

Gripping, Not Slipping!

The flexible rubber on sneakers and tires squeezes into the tiny uneven surfaces of roads and sidewalks and helps the shoe and tire grip with less slipping.





Spring in the Air!

When a rubber ball containing air is squeezed, the rubber changes shape and the air in the ball is compressed. The bounce is created when the rubber goes back to its normal shape and the air in the ball expands.

More Cool Chemistry

Natural and human-made rubber can change its shape and come back again. Materials that can do this are called “elastic”. Elastic materials are useful in lots of ways:

They can bounce us around!
Some trampolines use thick rubber bands and rubber mats to make a bouncy surface that’s really fun to play on!

They can grip!
Similar to how tires and sneakers grip the road, a rubber band can help you grip the lid of a jar to make it easier to open.

They are even part of you!
Your body’s cartilage is your own elastic material. If you bend the outside of your ear and let go, it bounces right back. That’s because your outer ear is made from cartilage which is made from fibers with some elastic properties similar to rubber.