



# Numbers

Special Activity

Osmo **GENIUS**

## Valentine's MONTH

### Let's Take a Trip to the Red Sea!

Many of the fish here are in symbiotic relationships, where they help each other out. Awww!

Can you find 10 special animals and the School-o-Fishies?!



To get started, open Osmo Numbers and then tap on this special button.



### Genius Spotlight: Oliver Chase



Did you know conversation hearts started as medicine? It's true!

Back in the 1800s, when people got sore throats, it was common to eat something called an apothecary lozenge. Pharmacists made these by mixing sugar paste and medicine, then cutting them into tablets by hand.

Oliver Chase, a pharmacist in Boston, had an idea to speed up this process: a tablet-cutting machine! With this invention, all you had to do was feed the sugar dough in, then crank it through.

Business started booming, so Oliver and his brother opened up a factory.

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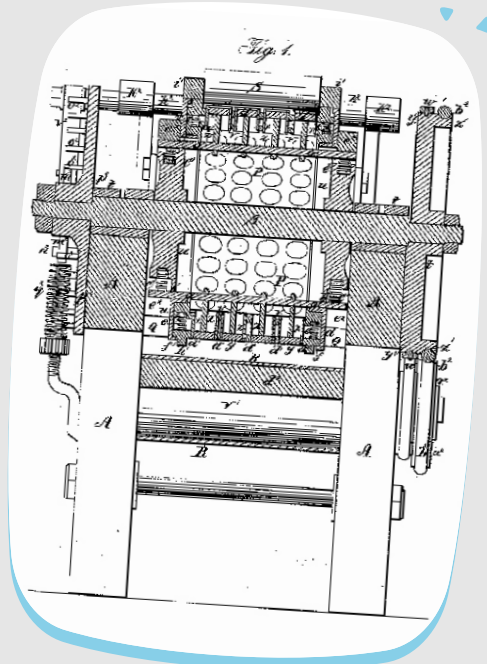
## More about: Oliver Chase

They removed the medicine and started selling their lozenges as candy wafers. Then, in 1866, the brothers invented a new machine to add messages onto the candies. It used a felt roller pad, soaked with dye...like a big stamp!

Eventually the candies started being cut into their famous heart shape, now

called Sweethearts®. Roughly 8 billion of the message-stamped treats are made each year.

Anytime you see Sweethearts® (or Necco Wafers, Oliver's original creation!), you can think of the pharmacist who made life a little sweeter with the first candy-making machine.



Oliver Chase's "Lozenge Machine,"  
patented May 12, 1857

## Experiment: Candy Heart Water

Lots of fun can be had with a box of conversation hearts.

To see for yourself, grab:

- a few clear glasses, cups, or jars
- some hot water
- something to write with
- box of conversation hearts



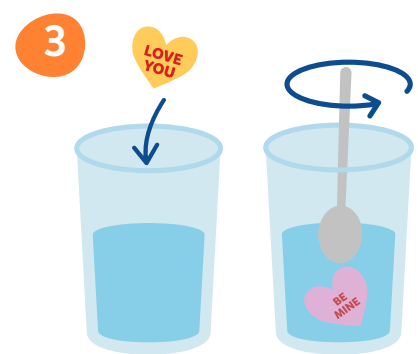
Count how many hearts of each color are in your box.

It won't be instant, but the hearts will eventually dissolve. That's because they are "**soluble.**" In chemistry, solubility is a substance's ability to dissolve in water.

**Enjoy your heart water!** Try arranging the glasses into a rainbow or mixing colors.



Have a grown-up pour equal amounts of hot water in each glass, about 1"-2".



Drop your yellow hearts into one glass, pink hearts in the next, and so on.

Stir and watch what happens to your hearts and the water.

Check with an adult before using household items.