What can swimming pools teach us about diffusion?
Gaby and Tac are at the pool. Gabby is reading and Tac is in the pool.

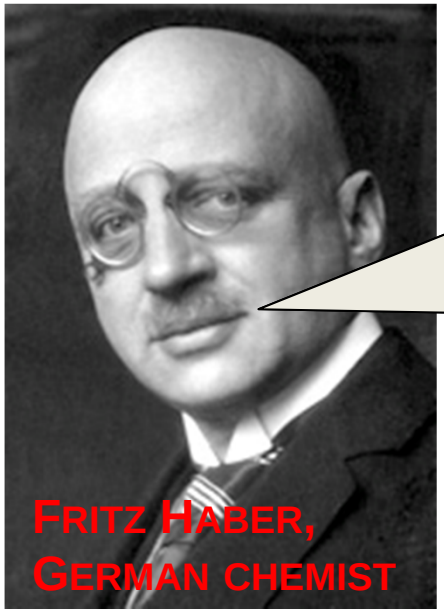
G: You know Tac this is an old pool.
T: I' m not dumb Gaby. I know this pool uses chlorine gas to kill algae and stuff in the water. You can smell it.
G: Look at all these people in the pool. Chlorine dissolved in water is so dilute, it is safe for us.
T: Yeah, but as a gas in large amounts it can be very dangerous.
G: I know Tac. Did you know chlorine was used as a chemical weapon in World War I?

The Germans were locked in battle with soldiers from France, England, Russia and lots of other countries that were allied with these big three.

But the war wasn' t going anywhere.

GERMAN SOLDIERS IN THEIR TRENCH

Each country had dug trenches along the front making it difficult for any country to overwhelm the other side and make ground.



During peace a scientist belongs to the world, but during wartime he belongs to his country

A bunch of scientists were working on making chemical weapon that would let the German's advance over the trenches of the opposing countries.

Fritz Haber, a famous German chemist, led the team that developed a container to get chlorine gas to the trenches where it was released.

BRITISH TROOPS WITH GAS MASKS ON WALKING THROUGH CHLORINE GAS

The Germans needed a breeze blowing towards the troops on the other side. They couldn't just depend on diffusion. Why not? Use the model and graph on the to Answer that question and explore diffusion further.

- If you were responsible for troops in trenches, and you could smell the chlorine coming.
- Using what you learned from the model, what would you advise the troops to do and why?