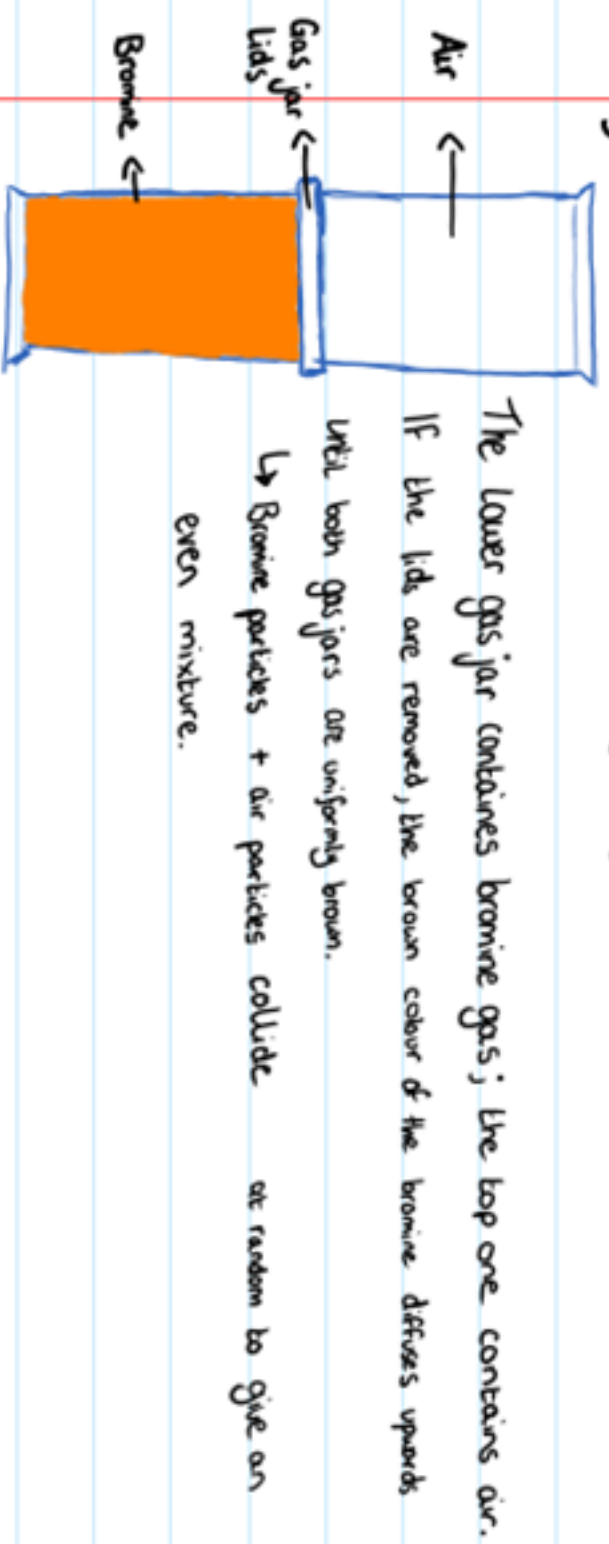


- Diffusion is the movement of particles from a high concentration to a low concentration.
- Lighter molecules will diffuse faster than heavier molecules.

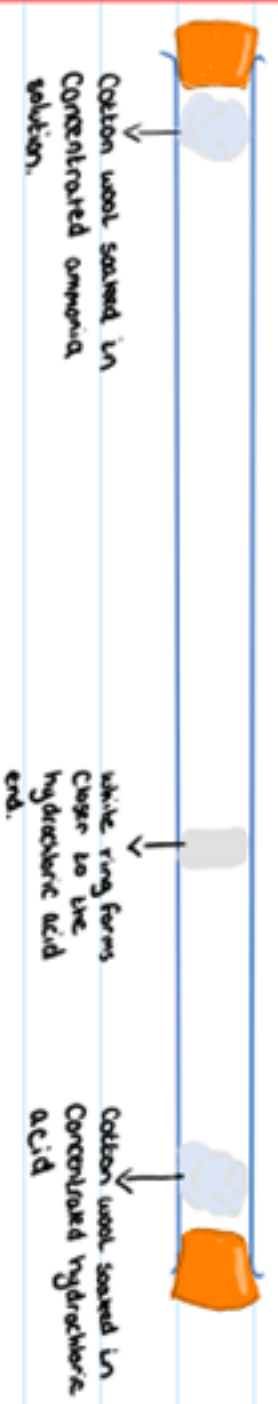
Demos:

1) You can show diffusion easily using the apparatus ↓



→ Our apparatus set up for this demo.

2) This demo shows that particles in different gases travel at different speeds:



This experiment relies on the reaction between ammonia & hydrogen chloride gases to give white solid ammonium chloride.

$$\text{NH}_3(\text{g}) + \text{HCl}(\text{g}) \rightarrow \text{NH}_4\text{Cl}(\text{s})$$

→ The white ring of ammonium chloride appears closer to the hydrochloric acid end. In the time it takes for the ring to form, the ammonia particles have travelled further.

- ↳ Ammonia particles speed is higher.
- ↳ Ammonia particles are lighter than hydrogen chloride particles.
- ↳ Light particles are faster than heavier ones.



→ Our demo set up to demonstrate the reaction.