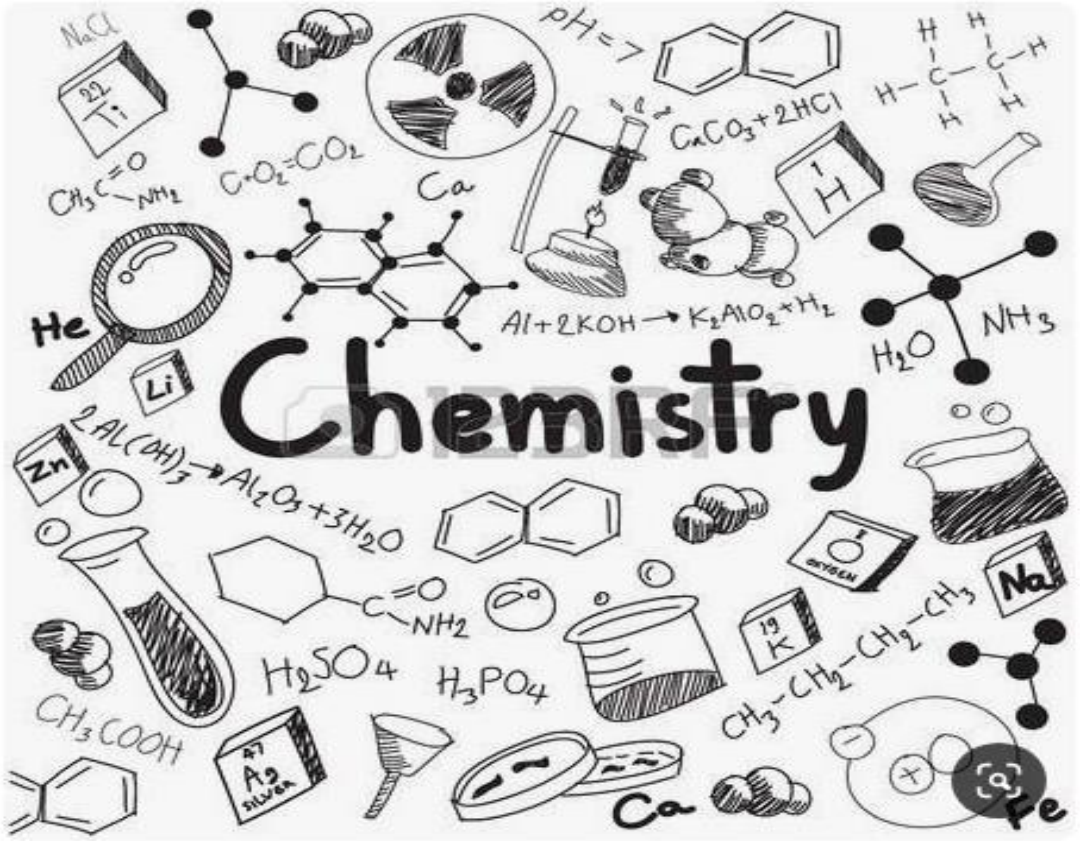
The National Orthodox School Shmaisani

- Chapter 12
- Lesson: (Concentration and rate of reaction)
- Scholastic Year: 2022-2023
- Grade: 8CS



Accredited by

The higher the concentration of a dissolved reactant, the faster the rate of a reaction.

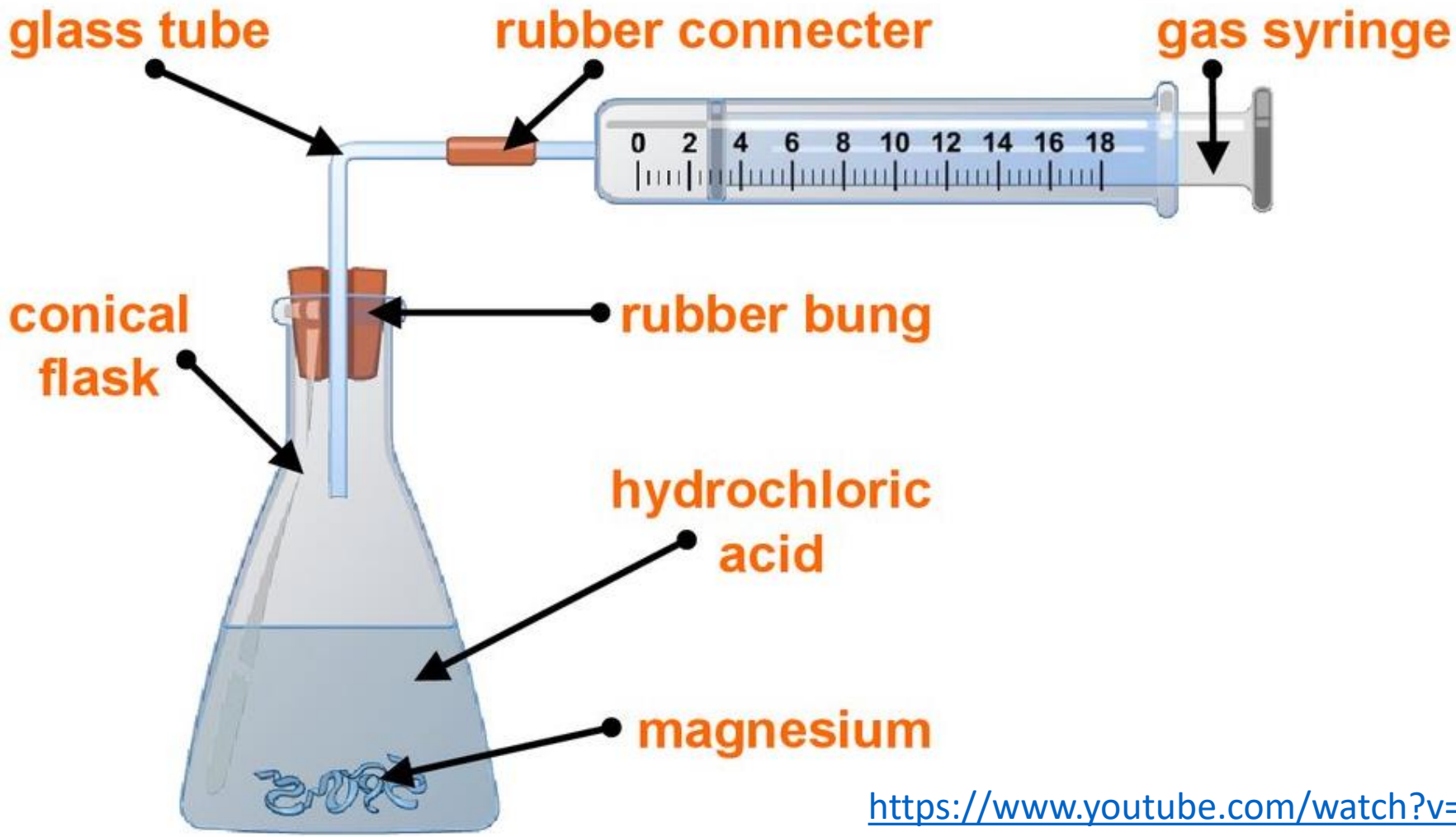
Why does increased concentration increase the rate of reaction?

At a higher concentration, there are more particles in the same amount of space. This means that the particles are more likely to collide and therefore more likely to react.

lower concentration

higher concentration

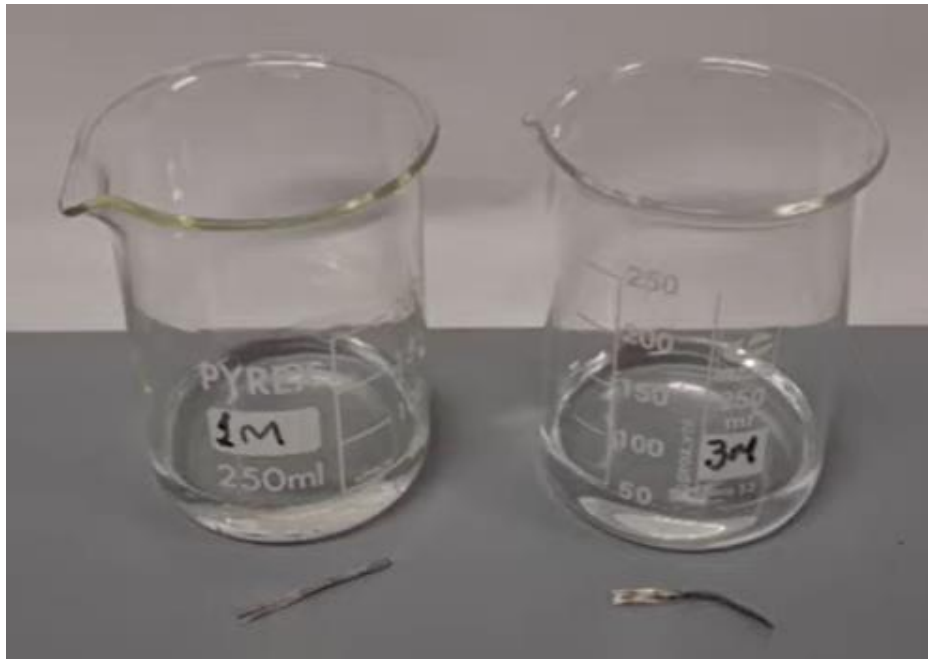
What equipment is needed to investigate the rate of hydrogen production?



https://www.youtube.com/watch?v=CYZnXt85idA

Example:

https://youtu.be/ek8h0XXW_vE



- The graph shows the volume of gas produced over time in the reaction between HCl and magnesium.
- The graph shows that a greater volume of hydrogen gas is produced over a short period of time when concentrated hydrochloric acid is used.
- As the concentration of hydrochloric acid increases, the number of acid particles involved in the reaction increases. As a result, there is a greater number of collisions between the acid and the magnesium particles, and so, there is an increase in the rate of reaction.