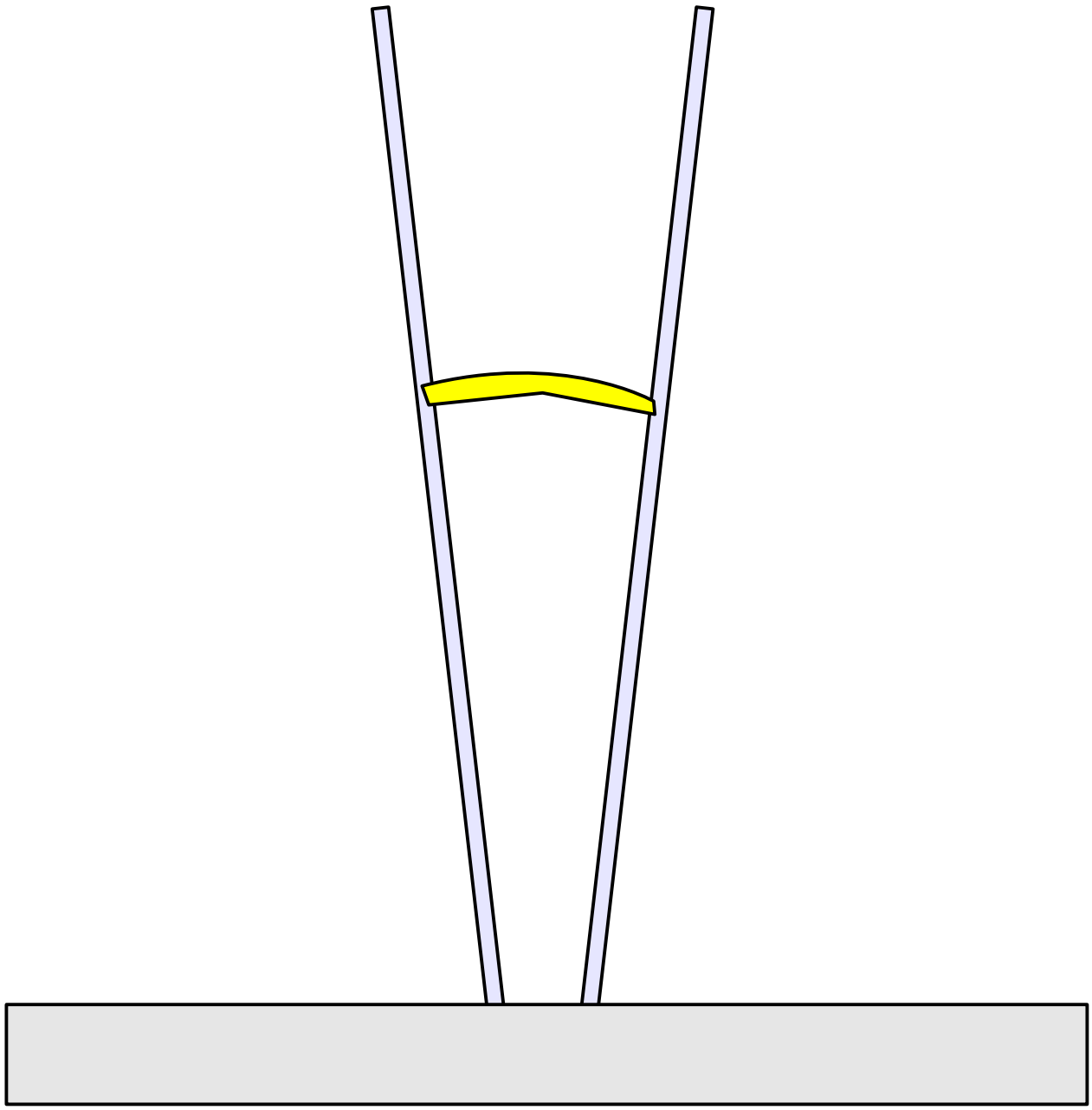
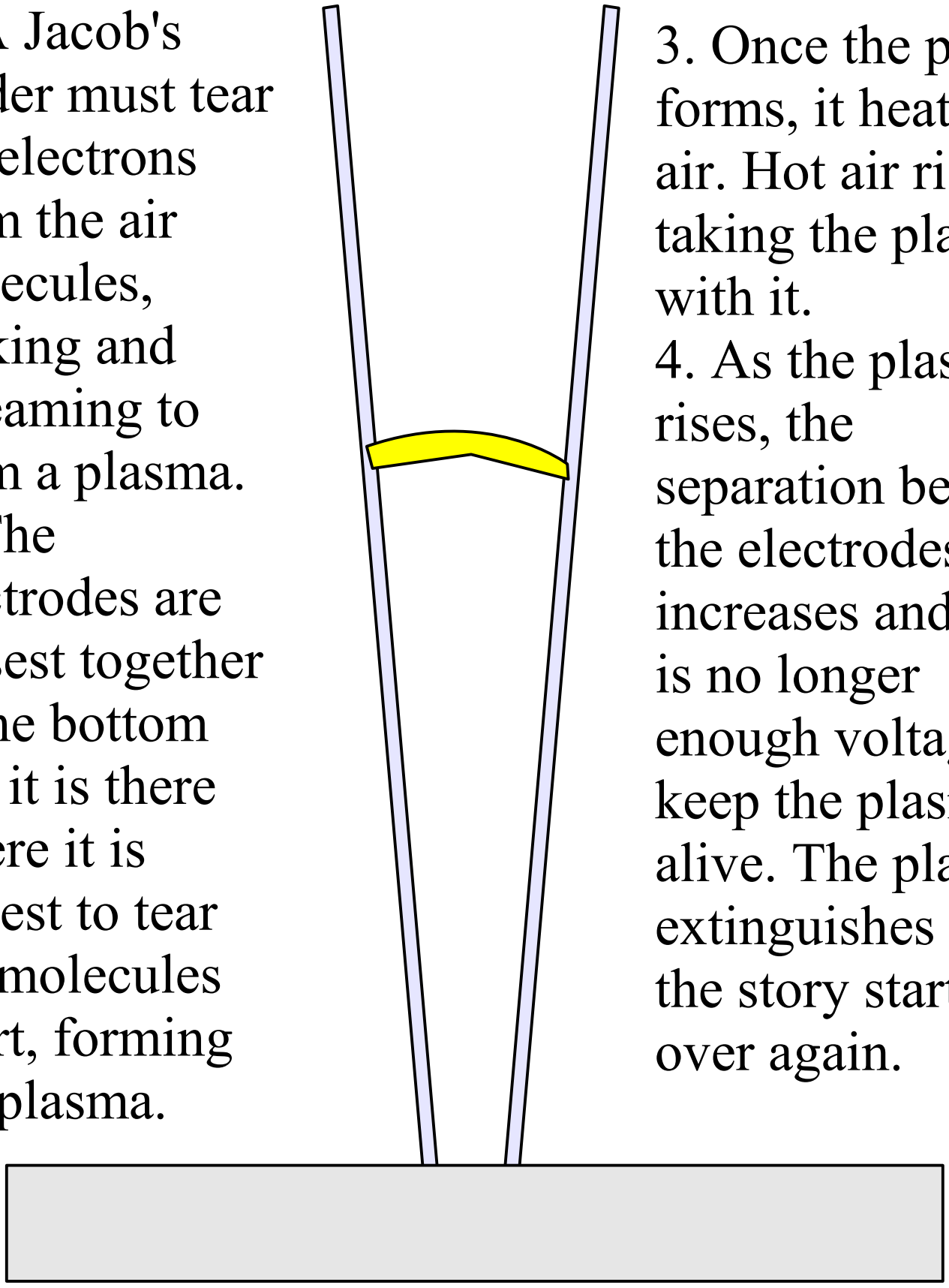
Jacob's Ladder

What it a Jacob's ladder?
Why does the spark go up?
Why does the spark stop at the top?
Why is it that you don't want to build one?



Jacob's Ladder

1. A Jacob's ladder must tear the electrons from the air molecules, kicking and screaming to form a plasma.
2. The electrodes are closest together at the bottom and it is there where it is easiest to tear the molecules apart, forming the plasma.



3. Once the plasma forms, it heats the air. Hot air rises, taking the plasma with it.
4. As the plasma rises, the separation between the electrodes increases and there is no longer enough voltage to keep the plasma alive. The plasma extinguishes and the story starts over again.