

**Assignment #2. Due Thurs Feb 20**

1. Explain in your own words what *thermodynamic entropy* is (*i.e.*, the notion of entropy that appears in *thermodynamics*), and how it relates to the Clausius and/or Thompson version of the 2nd Law of thermodynamics.
2. How is Maxwell's Demon supposed to violate the 2nd Law? What does Maxwell mean by claiming that this entails the 2nd Law is only "statistical" in nature?
3. How is Smoluchowski's trap-door device supposed to violate the 2nd Law? How is Szilard's one-molecule engine supposed to violate the 2nd Law?