

# **The Heat Death** **of the Universe**

- 1. The SECOND LAW OF THERMODYNAMICS states that natural processes move in the direction of increasing disorder. Specifically, one form of energy converts to another form, eventually and irreversibly converting itself to heat, the ultimate physical chaos.**
- 2. One necessary condition for life is the existence of differences (i.e. order). Heat differences are an example.**
- 3. Heat in any system eventually becomes uniform throughout, maximizing its disorder as required by the Second Law.**
- 4. The ultimate physical system is the universe.**
- 5. There will come a future time when all matter will be at a uniform temperature, and life will become impossible.**

**Physicists call this theoretical future state the HEAT DEATH OF THE UNIVERSE.**