The Second Law of Thermodynamics states that all natural processes move in the direction of increasing disorder. One form of energy converts to another, eventually and irreversibly converting itself to heat, the ultimate physical chaos. One necessary condition for life, highly organized, is the existence of differences, i.e. order. Heat differences are an example. In any physical system, heat eventually becomes uniform throughout, maximizing its disorder as required by the Second Law. The ultimate physical system is the universe. There will inevitably come a future time when all matter will be at a uniform temperature.

All life, all meaningful change, all relevance and significance will be no more. Nothing interesting will ever happen again.

IRONY: How did the highly ordered processes of life begin in an environment of ever increasing disorder?

The Heat Death of the Universe