

First and Second Law - Flanders and Swann

The First Law of Thermodynamics:

Heat is work and work is heat
Heat is work and work is heat
Very good!

The Second Law of Thermodynamics:

Heat cannot of itself pass from one body to a hotter body
(scat music starts)
Heat cannot of itself pass from one body to a hotter body
Heat won't pass from a cooler to a hotter
Heat won't pass from a cooler to a hotter
You can try it if you like but you far better notter
You can try it if you like but you far better notter
'Cos the cold in the cooler with get hotter as a ruler 'Cos the cold in the cooler with get hotter as a ruler
'Cos the hotter body's heat will pass to the cooler 'Cos the hotter body's heat will pass to the cooler

First Law:

Heat is work and work is heat and work is heat and heat is work
Heat will pass by conduction
Heat will pass by conduction
Heat will pass by convection Heat will pass by convection
Heat will pass by radiation Heat will pass by radiation
And that's a physical law

Heat is work and work's a curse
And all the heat in the Universe
Is gonna coool down 'cos it can't increase
Then there'll be no more work and there'll be perfect peace
Really?
Yeah - that's entropy, man!

And all because of the Second Law of Thermodynamics, which lays down:

That you can't pass heat from the cooler to the hotter
Try it if you like but you far better notter
'Cos the cold in the cooler will get hotter as a ruler
'Cos the hotter body's heat will pass to the cooler
Oh, you can't pass heat from the cooler to the hotter
You can try it if you like but you'll only look a fooler
'Cos the cold in the cooler will get hotter as a ruler
That's a physical Law!

Oh, I'm hot!
Hot? That's because you've been working!
Oh, Beatles - nothing!

That's the First and Second Laws of Thermodynamics!