

Energy

the measure
ability to
perform work

First law

energy
conserved

What

lost
here
gained
there

The apple

hanging in a tree
has
potential energy
falling
gains
kinetic energy
hitting the ground
makes
thermal energy
rotting
powers
organisms

Second law

forms of energy
not equal

Concentrated energy
can do

more work

But every process
energy dispersed

Energy degraded

heating
or
cooling

The perpetual motion machine

not
invented

Eating required
to maintain
your body

The sun

concentrated
energy
powers
plants

eating

powers
animals

decomposing

powers
bacteria
fungi

But still

energy degraded
every step
aging
inevitable
death

The universe

since
the big bang
dispersing
in space
cooling
down
loosing
options