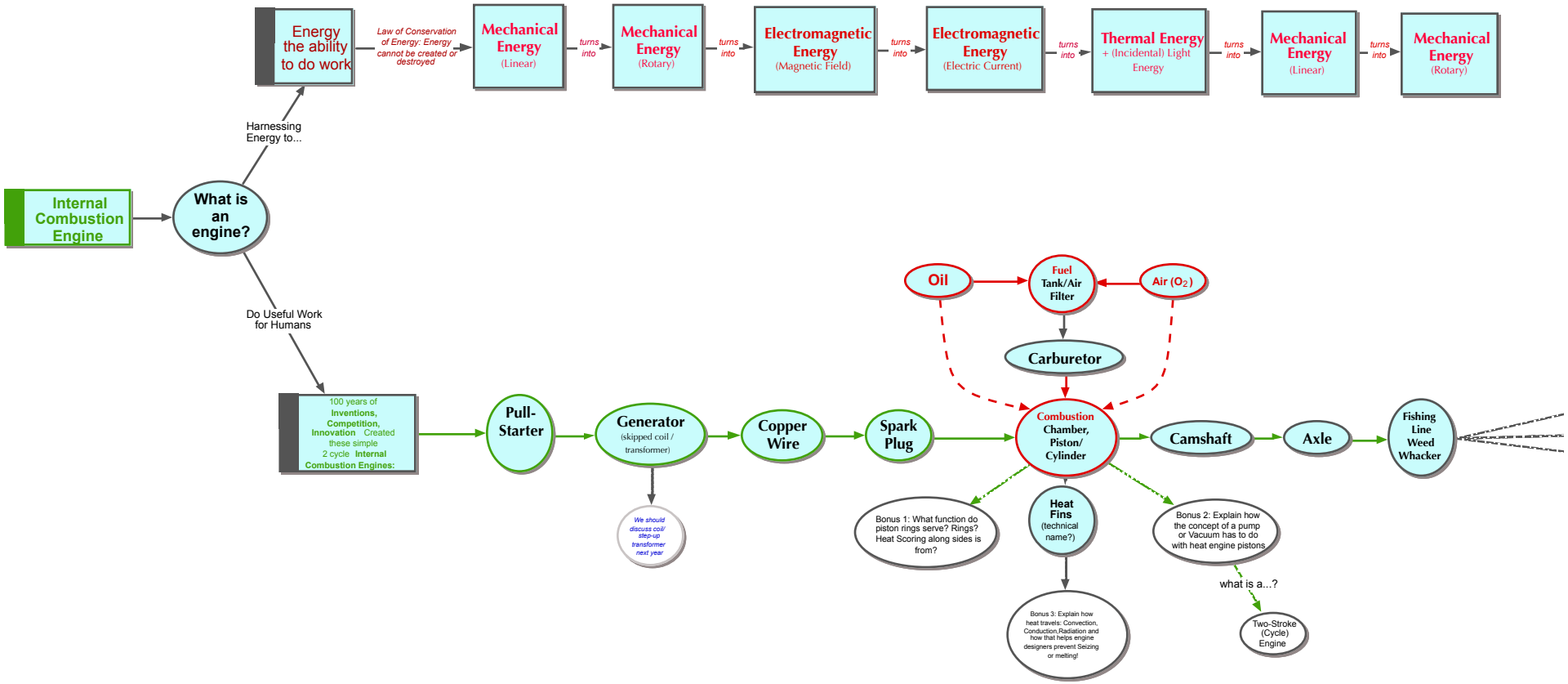

Energy
the ability to do work
Law of Conservation of Energy: Energy cannot be created or destroyed
Mechanical Energy (Linear)
turns into
Mechanical Energy (Rotary)
turns into
Electromagnetic Energy (Magnetic Field)
turns into
Electromagnetic Energy (Electric Current)
turns into
Thermal Energy + (Incidental) Light Energy
turns into
Mechanical Energy (Linear)
turns into
Mechanical Energy (Rotary)
Harnessing Energy to...
Internal Combustion Engine
What is an engine?
Do Useful Work for Humans
100 years of Inventions, Competition, Innovation Created these simple 2 cycle Internal Combustion Engines:
Pull-Starter
Generator (skipped coil / transformer)
We should discuss coil/ step-up transformer next year
Copper Wire
Spark Plug
Oil
Fuel Tank/Air Filter
Air (O_2)
Carburetor
Combustion Chamber, Piston/ Cylinder
Camshaft
Axle
Fishing Line Weed Whacker
Bonus 1: What function do piston rings serve? Rings? Heat Scoring along sides is from?
Heat Fins (technical name?)
Bonus 2: Explain how the concept of a pump or Vacuum has to do with heat engine pistons
what is a...?
Two-Stroke (Cycle) Engine
Bonus 3: Explain how heat travels: Convection, Conduction,Radiation and how that helps engine designers prevent Seizing or melting!