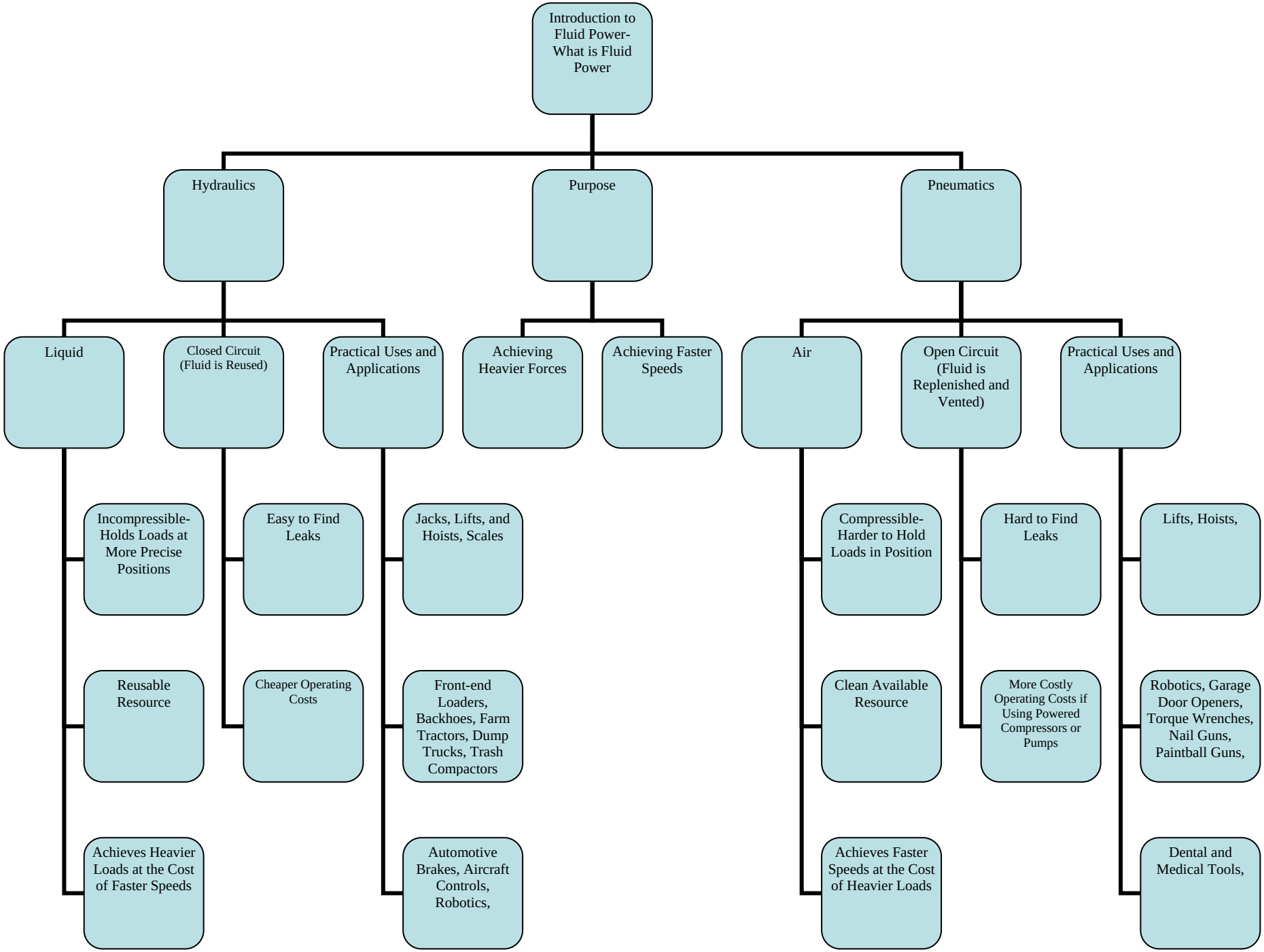
Introduction to Fluid Power- What is Fluid Power
Hydraulics
Purpose
Pneumatics
Liquid
Closed Circuit (Fluid is Reused)
Practical Uses and Applications
Achieving Heavier Forces
Achieving Faster Speeds
Air
Open Circuit (Fluid is Replenished and Vented)
Practical Uses and Applications
Incompressible- Holds Loads at More Precise Positions
Reusable Resource
Achieves Heavier Loads at the Cost of Faster Speeds
Easy to Find Leaks
Cheaper Operating Costs
Jacks, Lifts, and Hoists, Scales
Front-end Loaders, Backhoes, Farm Tractors, Dump Trucks, Trash Compactors
Automotive Brakes, Aircraft Controls, Robotics,
Compressible- Harder to Hold Loads in Position
Clean Available Resource
Achieves Faster Speeds at the Cost of Heavier Loads
Hard to Find Leaks
More Costly Operating Costs if Using Powered Compressors or Pumps
Lifts, Hoists,
Robotics, Garage Door Openers, Torque Wrenches, Nail Guns, Paintball Guns,
Dental and Medical Tools,