Principles of Engineering

Study Guide

1. Simple Machines: What are the six, calculate mechanical advantage, speed, effort, etc.
2. Ohm’s Law- know how to calculate voltage, current, etc.
3. Renewable, non renewable, inexhaustible energy sources-
4. Advantages and disadvantages of fuel cells
5. Conduction
6. Convection
7. R-Value
8. Mass
9. Density
10. 12 step design process
11. Free body diagram
12. Beam Deflection
13. Reaction Force
14. Moment of Inertia
15. Thermoplactics
16. Composites
17. Manufacturing Process
18. Strain Value
19. Modulus of Elasticity
20. Tensile/tensile test
21. Photocell
22. Phototransistor
23. Flow Chart
24. Decision Matrix
25. Fluid Power
26. Pneumatics
27. Probability
28. Median
29. Mode
30. Mean
31. Velocity
32. Speed
33. Acceleration
34. Vector