

1. Work and Energy: (continued)

E. Conservation of mechanical energy.

1. In what situation, the total energy is conserved?
2. What are the potential energy of gravity and potential energy of spring?
3. Force from the spring: Hooke's law.

F. Application of energy conservation.

2. Momentum and impact.

Basic concept of momentum and momentum conservation.

3. Fluids:

Pressure: definition, units, unit conversion,

Pressure of fluids.

Buoyant force

Equation of continuity of fluids.

Pascal's principle

Archimedes' principle *

Bernoulli's equation * (concepts of these two items with * were discussed heavily in the class. However, the name and the formula are not mentioned. Please read the book for these two missing parts, which should be very easy to follow. If you need any help, please let me know.)