Physical Science - Worksheet 3 - Momentum and Energy

Please read the chapter and answer the following questions:

- 1. Momentum
- 2. Impulse
- 3. Conservation of Momentum
- 4. Elastic Collision
- 5. Inelastic Collision
- 6. Work
- 7. Power
- $8.\,$ If a car weighs 1294 kg and is traveling at 36 meters/second, what momentum does the car posses?
- 9. Both the amount of force and the time applied affect the momentum of an object. Explain?
- 10. If you catch a baseball with your bare hands it may sting. How can you reduce the pain associated with this catch? Why does that work based on the concepts of momentum?
- 11. If you held a sack of sugar over your head for one hour, would you have done any work? Why/Why not?
- 12. Explain in great detail what energy is. Then explain the difference between potential and Kinetic Energy. Finally, draw diagrams that illustrate the difference.