

Appendix 1

Implementing the Common Core Standards

I included two activities in every objective in this unit. One activity can be done if the teacher has access to a computer lab. The second activity is a practical lab. These labs will help the students develop understanding of Work, Power and Energy. The culminating activity will allow the students to apply their understanding on Work, Power and Energy to design and build an actual Roller Coaster. These activities will allow the students to demonstrate understanding of the following Common Core Standards

Phy.2.1 Understand the concepts of work, energy, and power, as well as the relationship among them

The sub-standards which fall under this are as follows

Phy.2.1.1 Interpret data on work and energy presented graphically and numerically.

Phy.2.1.2 Compare the concepts of potential and kinetic energy and conservation of total mechanical energy in the description of the motion of objects.

Phy.2.1.3 Explain the relationship among work, power and energy