## **Assorted Possible Project 1 Topics**

(hugely indebted to Michelle LeMasurier's PRIMUS XVI:4 article)

- Memorization/learning curves
- Mold growth
- Logistic growth with harvesting
- Exponential and logistic population models
- Population collapse (passenger pigeons)
- Modeling oil production
- The Van Meegeren art forgeries
- Natural displacement of pollution from the Great Lakes
- The spread of technological innovations
- Homicide and Newton's Law of Cooling
- The brachistochrone problem
- An atomic waste disposal problem
- Drug absorption: dose versus overdose
- Water heating, water cooling, and energy savings
- Rocket flight: the multistage/orbital speed connection
- The national debt, government spending, and economic control
- Chemical kinetics
- Synchronous fireflies
- Radioactive decay
- Modeling motion in a gravitational field
- Escaping the earth's gravitational field