Kid Motors

Design a Car!

Engineering

- Engineering is a team effort
- Have 4 groups
  - Styling
  - Power Train
  - Weight
  - Cost
- Each team works together and with other teams to come up with a design!

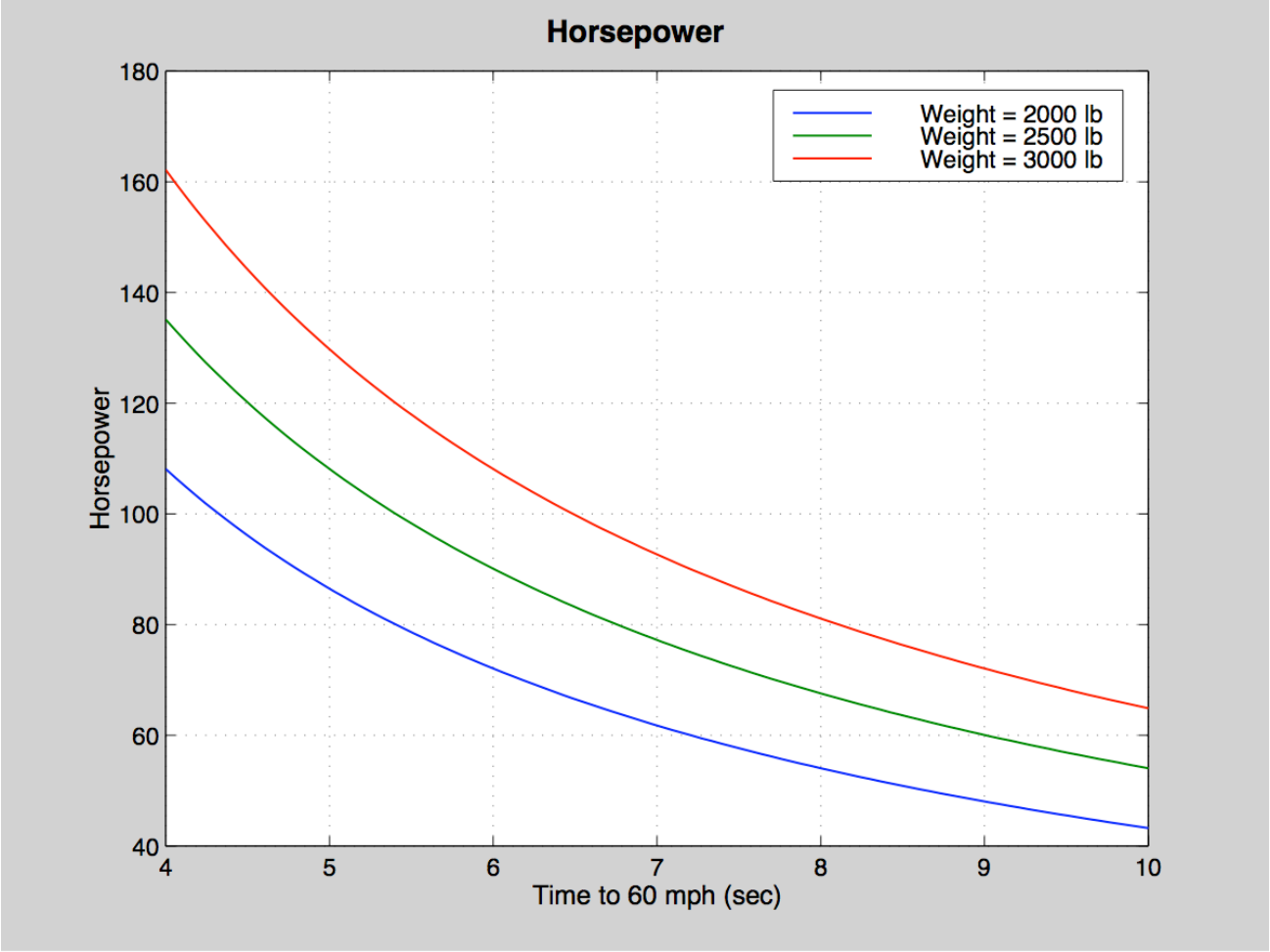
Styling Group

- Number of passengers
- Weight of luggage
- Acceleration 0-60 mph in seconds
- Accessory weight
- Draw picture
- Give results to other groups

Power Train Group

- Calculate weight of powertrain
- Weight = 4 x Horsepower
- Use chart to compute horsepower from acceleration that you get from styling group and the weight that you get from the weight group
- Draw picture of power train

Horsepower Calculation



- Need to know weight and acceleration

Weight Group

- Compute weight - provide result to cost and powertrain group
- Payload weight = luggage weight + number of passengers x 200
- Total weight = engine weight + payload weight + accessories weight
- Draw picture of suspension and tires

Cost Group

- Compute cost based on weight
- Dollars per lb Payload = $5/lb
- Dollars per lb Engine = $10 /lb
- Dollars per lb Accessories = $20/lb
- Cost = 5 x payload weight + 10 x engine weight + 20 x accessories weight
- If cost is too high, tell other groups to reduce weight!

Results

- Total Weight
- Cost
- Styling
- Will it sell?