Traffic Lessons for High School Students

Center for Transportation Studies
University of Minnesota
When have you waited in line?

delay

arrival rate

service rate

departure rate

queue length
Simulation

http://street.umn.edu/game_traffic.html
Offset – engineers’ version of “override”

- Controls each intersection relative to a central clock
- Increases traffic flow
- Great quantitative piece
1 x 1 Fixed time
High traffic, slow speed, 5-second green
Scientific Method refresher

• Hypothesis: What will you test?
• Experiment procedure: How will you test it?
• Observations/results: What happened when you tested it?
• Conclusion: How did your results support or refute your hypothesis?
Your task: design & conduct

• Work in pairs
• Think like an engineer
• Be specific, rigorous
• Be creative
• Have fun!