What does the past tell us about the future?

What variables limit or sustain the continuation of a trend?

Track the Trends Project

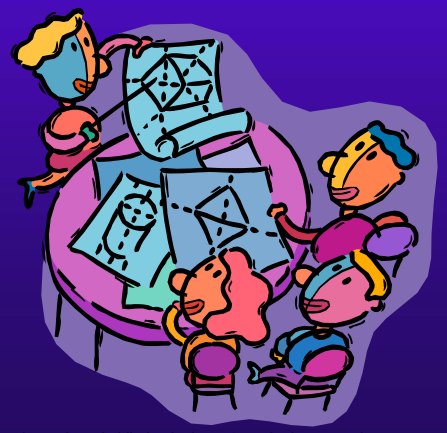
- You will be taking on the role of a statisticians to collect and analyze statistical information about a subject over time
- Use the past to predict the future
- Integrate mathematics, statistics, and technology

Step 1 – Review Project Expectations

- You will be creating:
  - A slideshow about the trend and possible implications, using mathematical tools of statistical analysis

  AND either
  - A newsletter with brief articles and graphs about possible effects and implications of the trend

  OR
  - A wiki about the topic, including implications and effects
- Review Project Rubric and Checklists and self-assess your work as you go
- Conferences to check on progress will be held next week



Step 2 – Pick a Topic

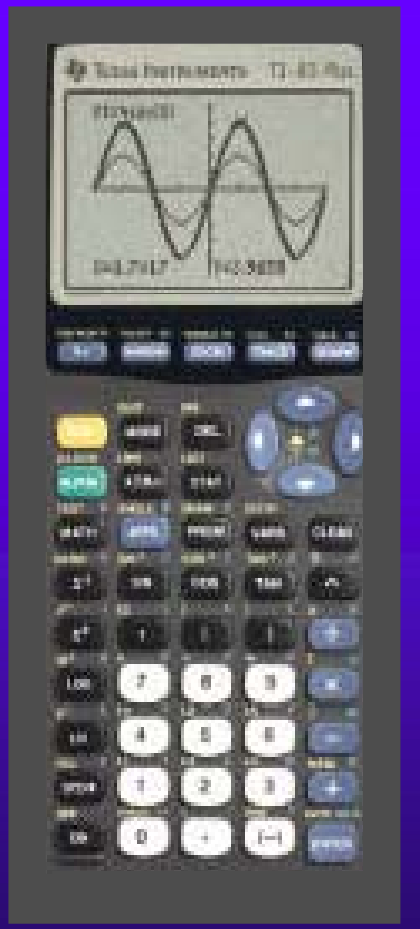
- Pick a subject that interests you and your partner.
- Examples: cancer rates, population changes, baseball salaries
- Come up with three possible topics and we will choose so there is no overlap with other groups.

Step 3 – Research Your Subject

- Use the Internet and library for research
- Need data from at least 5 separate years/time periods

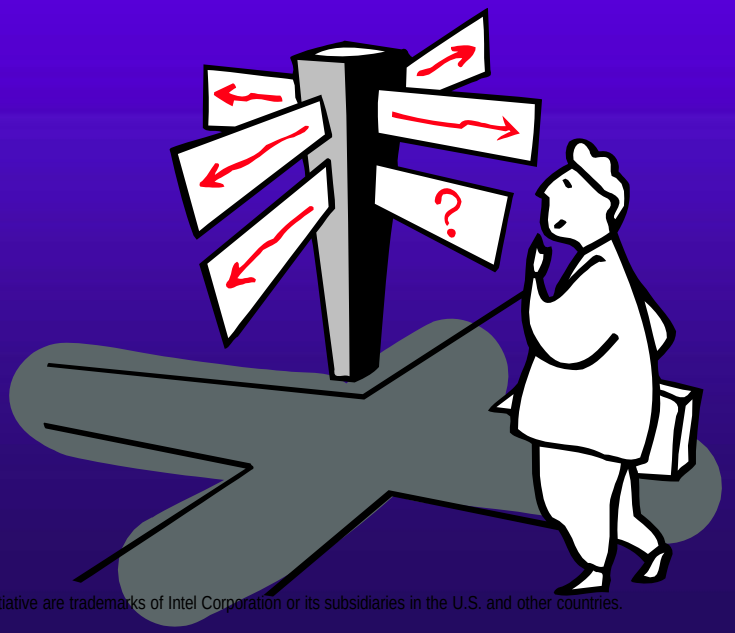
Step 4 – Apply Math to Data

- Using graphing calculator,
  - Find equation for curve of best fit (exponential regression)
  - Find correlation coefficient
- Using equation, make prediction for at least five future years/time periods

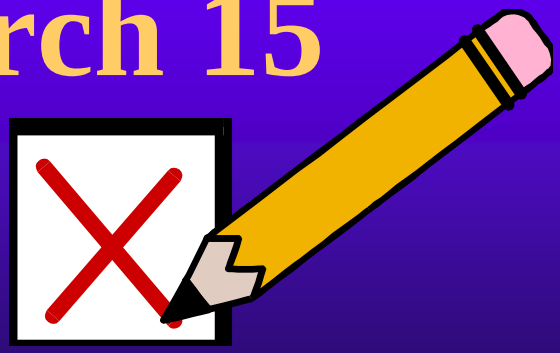


Step 5 – Future Implications

- Now that you have made future predictions using your equation, brainstorm potential ramifications.
- How does a trend affect people's choices?
- What will our quality of life be like in the future?
  - Social
  - Environmental
  - Economic
  - Political
  - Medical



Steps 1 – 5 must be satisfactorily completed before you get on the computer starting Monday, March 15



Step 6 – Graph your Data

- Make a spreadsheet with three columns:
  - Column 1 = Year
  - Column 2 = Historical Data
  - Column 3 = Data if using formula (best fit)
- Create "XY Scatter" graph of spreadsheet
  - Historical Data (points)
  - Formula Calculations (best fit line)

Step 7 – Create a Presentation and a Publication or Wiki

- Include the following elements:
  - Data from research
  - Mathematical analysis
  - Excel graph of historical vs. best fit data
  - Discussion of future implications
  - Pictures/graphics/sounds that enhance content
  - Select internet resources for more info
  - Sources cited
- Self-Assess with checklist and rubric

Step 8 – Present Slideshow to Class

- Electronic documents are due to me no later than Friday, March 19.
- You and your partner will present to entire class on Tuesday, March 23.
- Presentation can be no longer than 5 minutes.