***SAMPLING A POPULATION***

******What have you always wanted to know about the population?  We know it is difficult and almost impossible to survey the entire population.  However, using our knowledge of statistics, we can find the true mean of the population (with some error) by taking a sample from the population.

This project is going to allow you to use your prior knowledge of statistics and create a confidence interval depending on the sample you take.

Your job is to come up with some creative question or topic that interests you.  What question do you want answered about the population?  Who is in your population that you will be surveying (subway rats, students, Yankee games)?

To complete this project you must:

* Choose a topic that interests you
* Determine who is in your population
* Find a question you want answered
* Gather your data (survey, internet)



**Y**ou will issue a written report. The report must include:

* A statement of the task
* How you approached your task, your sampling strategy, the question you wanted answered, and why
* The collection of data to help you come to conclusions
* Explain drawn conclusions from the solution
* Reflection Form

*Sampling a popultion*

*Student Assessment Rubric*

|  |  |  |
| --- | --- | --- |
| **Name** | **Class** | **Date** |
|  |  |  |
| **Problem-Solving** | **Writing/Explanations** | **Presentation** | **Grade** |
| *Did you understand the problem? Did you hypothesize logically about the outcome? Did you consider strategies and choose one that makes sense for this problem? Did you use technology and tools intelligently?* | *Did you explain your work correctly? Did you interpret the results or data logically? Did you answer written questions correctly? Did you reflect on your work?*  | *Is your work neat? Were you careful and creative? Did you complete all of the requirements of a “final draft” of this project?* |  |
| Did you understand the problem? Did you hypothesize logically about the outcome? Did you consider strategies and choose one that makes sense for this problem? Did you use technology and tools intelligently? | * Is your reflection and report clearly written and explained?
* Did you use stats vocabulary correctly?
* Is the explanation well-written?
* Did you turn in a rough draft?
 | * Neat and clearly labeled?
* Is it creative ?
 |  |
| **My own self-assessment:** |
|  |  |  |  |  |
| **My comments:** |
|  |  |  |  |  |
| **Teacher’s assessment:** |
|  |  |  |  |  |
| **Teacher’s comments:** |
|  |  |  |  |  |

Day by day

Day 1

Choose population and mean they are curious about

Choose topic

Create question to be asked (if doing a person survey)

 -------- or ------------

Figure out how to collect the data

Choose sampling method (if using survey be sure to have students pick which classes they will pop in so that we can email those teachers and let them know in advance)

Day 2:

Gather data, either by administering survey to class, or using internet

Calculate Confidence interval

Day 3 / 4

Type up explanations,

Show kids how to save in drive (after they sign into ams emails, click drive, create, and then share with – share with the teachers email)

 Save them in drive so that we as teachers can provide feedback instantaneous.