**FOM 11**

**Statistics Project**

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| **Your Data Collection** | **Presenting Your Findings** |
| 1. Come up with a trait to collect data on 2. Collect a minimum of 30 data points (n > 30) 3. Take photos of you collecting your data that you are collecting to add to your poster (will help your viewer follow along to what you are collecting) | On a poster you are to include:   * Your big question * Your raw data * Mean, median, mode, range * Standard deviation (use Desmos, but show equation) * A frequency table (possibly in ranges) * A frequency graph (showing the distribution) * Show your data in a normal distribution curve with 3 standard deviations * Reflection 🡪 does your actual match your theoretical normal distribution (be specific and detailed) * Calculate the confidence interval for your population to BOTH 90% confidence and 95% confidence (show calculations) * Reflection 🡪 where do you see statistics in real life? How has this project helped you understand statistics? |

**Your Topic Brainstorm:**

1. What would be interesting data for you to collect (only 1 trait or variable). Brainstorm as many ideas as you can

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1. Rank your top 3 ideas:
   1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

SHARE OUT…. Is this realistic to collect data on 30 samples in 2 days?

**Final decision…**

**My big question is: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Project Reflection**

On a separate piece of paper (please type it up and staple to your poster) please reflect on the below questions:

1. How did this project help you understand statistics?
2. What worked well for you in this project?
3. What was a challenge for you in this project?
4. If I were to do this project again, what would I do differently to get a better result?
5. Where do you see statistics in real life?
6. Wy are statistics important in real life?

**Marking Criteria**

Due Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| **Curricular Competencies** | **Details** | **Novice**  **1/2** | **Apprentice**  **3/4** | **Expert**  **5/6** |
| **Reasoning & Modelling** | I can demonstrate reasoning through a decision using mathematical backing to justify my statistics. I can model the statistics in my math situation |  |  |  |
| **Understanding & Solving** | I can develop a question to find the statistics for. I can solve the problem and be persistent in my solution. |  |  |  |
| **Communicate & Representing** | I can clearly communicate my thinking and process to find my statistics. I can create a visual display that appropriately communicated my data. |  |  |  |
| **Connecting & Reflection** | I can reflect on my mathematic thinking. I can acknowledge my errors and reflect on how to do things differently next time. |  |  |  |