Unit 6: Statistics Performance Task:

*What is a typical 6th grader like???*

Project is due: Friday, 1/24/20

1) \_\_\_\_\_\_ Come up with **3 statistical questions** to survey your peers about. You may wish to

include answer choices for each one. The questions must yield **numerical** data.

Be creative with your questions! Make them interesting! ☺

2) \_\_\_\_\_\_ What do you **predict**? Write a paragraph (minimum 3 sentences) for **EACH** of

your 3 questions, predicting the outcomes. What do you think will be “typical?”

*(Steps 1 & 2 MUST be submitted and approved before conducting your survey.)*

3) \_\_\_\_\_\_ **Conduct your survey**! Ask a minimum of 25 sixth graders.

4) \_\_\_\_\_\_ **Graph** your data for each question. You must have one **dot plot**, one **histogram**,

and one **box plot**. (One for each question – not 3 graphs for each question.)

Each graph MUST be neat, colored, and titled. Include axis labels on the histogram.

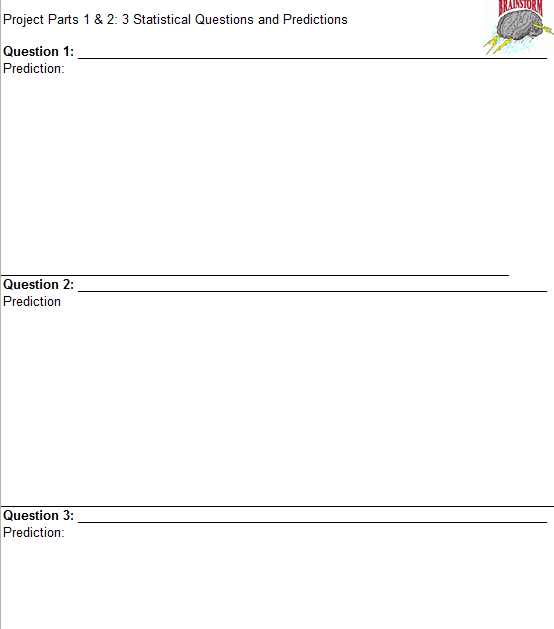
5) \_\_\_\_\_\_ **Analyze** your data in a paragraph for each question. Explain your conclusions.

Include at least one **measure of center**, one **measure of spread**, and one observation about the **shape** for each graph. Also, **compare** your findings to your predictions. Were you surprised by anything, or were you on point?

6) \_\_\_\_\_\_ **Display** your project! You may create a poster, PowerPoint, Prezi, PowToon,

booklet, video, brochure, etc. Be creative, NEAT, and thorough!

*\*It is your choice to work alone or in a pair. If you work in a pair, you must have a total of SIX questions instead of three. We may conduct “peer reviews” of projects on Friday, and that may be factored into your grade.*



Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Statistical Question #1:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

Statistical Question #2:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

Statistical Question #3:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Dot Plot** | **Histogram** | **Box Plot** |
| **Statistical Question with Numerical Data**  **3** – Statistical AND Numerical  **2** – Statistical OR Numerical  **1** – Not Statistical or Numerical | 3 2 1 0 | 3 2 1 0 | 3 2 1 0 |
| **Prediction Paragraphs**  **3** – Minimum of 3 well-written sentences explaining the student’s predictions  **2** – Only 2 sentences OR contains errors OR only gives one prediction  **1** – Not in paragraph form and contains errors | 3 2 1 0 | 3 2 1 0 | 3 2 1 0 |
| **Graphs**  **12** – Accurate (matches data), neat/organized/easy to follow, colored, and includes titles (and labels for histogram)  **10** – All of above EXCEPT has 1 minor inaccuracy (doesn’t match data)  **6** – Has 3 inaccuracies OR is not neat and colored OR does not include title/labels  **3** – Matches data but is not neat/organized/easy to read | 12 10 6 3 0 | 13 10 6 3 0 | 12 10 6 3 0 |
| **Conclusion Paragraphs**  **15** – Minimum of 4 well-written sentences including accurate measures of center, spread, and shape. Also compares to prediction.  **12** – Everything above EXCEPT missing one part (center, spread, shape, comparison)  **9** – Everything above except missing 2 parts  **6** – Not in paragraph form, but does include a measure of center, spread, shape, and a comparison to predictions.  **3** – Followed almost no directions | 15 12 9 6 3 0 | 15 12 9 6 3 0 | 15 12 9 6 3 0 |
| **Subtotals** | **/33** | **/34** | **/33** |
| **Total Score:** | **/100** | | |

**“What is the Typical 6th Grader Like?” Rubric**

**Analysis of Data (Optional Draft/Notes sheet)**

**Question 1:** dot plot histogram box plot

measure of center (identify and give value): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

measure of spread (identify and give value):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

measure of shape (identify and give value):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

compare to prediction:

**Question 2:** dot plot histogram box plot

measure of center (identify and give value):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

measure of spread (identify and give value):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

measure of shape (identify and give value):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

compare to prediction:

**Question 3:** dot plot histogram box plot

measure of center (identify and give value):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

measure of spread (identify and give value):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

measure of shape (identify and give value):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

compare to prediction: