



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.*

Project Parts 1 & 2: 3 Statistical Questions and Predictions



Question 1: _____

Prediction:

Question 2: _____

Prediction

Question 3: _____

Prediction:

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

	<u>Dot Plot</u>	<u>Histogram</u>	<u>Box Plot</u>
<p><u>Statistical Question with Numerical Data</u></p> <p>3 – Statistical AND Numerical 2 – Statistical OR Numerical 1 – Not Statistical or Numerical</p>	3 2 1 0	3 2 1 0	3 2 1 0
<p><u>Prediction Paragraphs</u></p> <p>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</p>	3 2 1 0	3 2 1 0	3 2 1 0
<p><u>Graphs</u></p> <p>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</p>	12 10 6 3 0	13 10 6 3 0	12 10 6 3 0
<p><u>Conclusion Paragraphs</u></p> <p>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</p>	15 12 9 6 3 0	15 12 9 6 3 0	15 12 9 6 3 0
<u>Subtotals</u>	/33	/34	/33
<u>Total Score:</u>	/100		

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: