

ASSIGNMENT

Engaging Contexts Data Integration Project

by

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CHARTING SUCCESS

I found this topic, Charting Success on <https://nrich.maths.org/7735> . It shows various graphs, diagrams and charts to represent data of different sports. The goal to choose this topic is to make my students familiar with different sources of data collection and variety of ways to represent them. It helps them see Math connections in real life. Also, my students struggle a lot with analyzing and understanding graphs, tables, charts and diagrams. Through this data chart, I want to help develop in them, these skills, which are required for descriptive and inferential statistics. The process of data analysis that includes three steps:

1. Collecting data
2. Describing the data
3. Making an inference

can be taught using this topic. The topic can also be used to teach probability as well as vocabulary in probability and statistics.

To further this into a STEM lesson, students will learn about science behind sports where they will learn how force of gravity plays a role in vertical velocity of a ball, calculate how long the ball will stay airborne and how far it will travel (its range) by multiplying the time in the air by the ball's horizontal velocity. The students will also, learn about energy transfer and laws of motion. The students will learn how design and material of a bat and will give very different results even if you apply exactly the same force.

The students will learn to design a model of a sport field using CAD. In the engineering design task, students will learn to design the perfect stick given a player's individual preferences.

In my opinion, teaching students about data is important for reasons such as being well informed, making well-informed judgments, and evaluating decisions others make that affect your life.

Collecting, assessing or inferring data is one of the important concepts in math that is not only part of statistics but is also connected with functions and graphing. And as my students are very low-performing in Math, they don't understand all the connections between data, input-output table, graphs- *line, bar or pie* that they have to learn. This concept is important as data is used in other subject areas too, like science and economics.

Reference:

[file:///C:/Users/vinita.singh/Downloads/GP Future Goals Science Curriculum Guide 042018.pdf](file:///C:/Users/vinita.singh/Downloads/GP_Future_Goals_Science_Curriculum_Guide_042018.pdf)

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