HOW TALL ARE YOU?

Objectives:

The students will understand:

- How to collect data and determine varying outcomes reliant upon the input of information
- That models can be representatives of something else
- Anyone can be a scientist and test hypothesis
- How to calculate central measures of tendency

Standards Assessed:

- Scientific Method
- Collecting Data
- Scientific Inquiry
- Testing Hypothesis
- Models for Representation

- Central Measures of Tendency
- Measuring with non-standard units
- Genetic differences

Florida Benchmarks:

3rd: SC.3.N.1.1, SC.3.N.1.2, SC.3.N.3.2-3, SC.3.P.10.1-3
4th: SC.4.N.1.2, SC.4.N.1.8
5th: SC.5.N.1.6
6th: SC.6.N.1.5, SC.6.N.3.1

Materials:

- How Tall Are You? Exhibit
- Data Collection Card

Procedures: The students will stand on the floor pad so that it can determine how tall they are. Once their height is determined the students will write down their height in both metric and standard units on their data collection card. Once back in the class it needs to be discussed about standard and non-standard units and why they differ and why they exist. In addition, how is this exhibit modeled after something more non-computerized, such as the measurement they use at a doctor's office? A graph needs to be developed of the varying heights of the students in the classroom and use central measures of tendency to determine the mean, median, and mode of the heights in the classroom. The class can also lead a discussion why student's heights differ due to genetics.

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Independent Practice: The exhibit is completely independent

Assessment:

- The student will write their outcome on their post-teaching card
- Teacher observation of participation in classroom discussion

Modifications (Special Education Students): Special education students may need assistance in writing down their heights on their data collection cards and may need assistance on where to stand.

Extensions (Gifted Students): Gifted students may work on converting heights of other objects based on their height and their metric unit height.

Generalization to other Subjects: Measuring with non-standard units and central measures of tendency can generalize to math.