

DIGITAL STATISTICS

Teaching Guidelines

Subject: Mathematics

Topics: Statistics, Algebra (Patterns)

Grades: 5 – 7

Concepts:

- Average
- Range

Knowledge and Skills:

- Understands the purpose and value of organizing information in charts
- Can create a chart for the collection of experimental results
- Can find the mean and range of a set of numbers
- Can identify and describe patterns in a collection of related numerical data

Materials (for each team):

- 1 ruler, marked in millimeters, for each student
- Meter sticks or other measuring instruments for determining heights of students.

Procedure:

Students should begin this activity working in teams of two.

Distribute the handout and ensure that students understand the instructions. Review the concepts of “average” and “range” and how they are determined.

Circulate and assist as they carry out the activity.

You may choose to have students report on their results orally or in writing.

Optional: As a class activity, look at the statistics of all students together. If the results are different than any of the smaller groups, you may wish to use this opportunity to discuss the concept of “sample size” and why it is important to have a large enough sample when doing an experiment like this.

Digital Statistics

Do taller people have bigger hands than shorter people? Here's a way to find out:

1. Work with a partner.
2. Measure the distances shown below on your own hand, and record the data in a table. Do this for both of your hands.
3. Find the average of the measurements, and record that on your chart.
4. Find the range of the measurements, and record that on your chart.
5. Measure your height, and record that on your chart.
6. Share the information on your chart with five other students. Make a new chart that shows the average and range of all of the hand measurements, and the height for each student.
7. Do taller people have bigger hands? Explain your answer in an oral or written report.

