

Goal: Get in order by something easy to compare, such as height or arm span

Grades: K–2

Minimum number of participants: 4

Suggested grouping: divide into groups of 4–10

Time: 10 minutes or less

Math: comparing height; graphing

Materials:
none

Prerequisites: none

Books about comparing sizes:

The Best Bug Parade. Murphy, Stuart. (Harper Trophy, 1996).

The Giant Cabbage: An Alaskan Folktale. Stihler, Cherie. (Sasquatch, 2003).

Before beginning

Choose a size characteristic that children can physically compare, such as foot length or hair length.

1 Predict

Tell children they will be lining up from largest to smallest.

We'll be lining up by arm span. Do you think you'll be the start, middle, or end of the line?

Talk About...

2 Line up!

Everyone makes comparisons and stands in order. If two children have the same measurement, they stand side by side.

3 Are we in order?

Check and change places if needed.

Are you in the part of the lineup you predicted?

Are there any people with the same height? Which height is most common?

If we do this again in 6 months, do you think everyone will be in the same place in line?

Talk About...



Variations

Line up for a moment (easier). Divide into groups of 5 or 6. Each smaller group lines up. That way, no one waits too long in line while others are deciding where they stand.

Guess our lineup (harder). One person is the Detective and leaves the room while the others line up in order by a secret characteristic. The Detective returns, looks over the lineup, and tries to determine the characteristic by asking yes-or-no questions.

Line up over time (same as main activity). Line up according to the same characteristic at different points in the year. For instance, line up by height at the start of the year and record the order. Try it again in March, and compare how the order changed.



Graphing

When children line up in order, they form a human graph. Each person is like a “point” on the graph.

The line shows the characteristics of the group:

- the largest and smallest measurements
- the range, or span of measurements
- the slope, or variation from person to person
- common or modal values—whether some measurements are the same



Comparing sizes

This activity helps children visually compare height, length, and width. Since most of us don’t carry around measuring tapes, we make a lot of judgments based on relative sizes. Are these pants likely to be wide enough for me? Is this book too tall for my bookshelf? Will this container fit on the bottom refrigerator shelf?

With practice, people become good at making comparisons. Hairdressers can quickly judge hair length; carpenters are good at determining if two boards are the same size; athletes can judge the distance remaining to a finish line.