

LINE PLOT *dance*

M A T H & D A N C E

Objectives

CONTENT	FINE ARTS
CCSS.5.MD.2.B Represent and interpret data	DA:Cr2-5a. Manipulate or modify a variety of movement patterns, forms, structures, and designs to expand choreographic possibilities and develop an artistic intent (main idea). Discuss the movement choices.

Materials:

- Several examples of mathematical line plots
- Several examples of written choreography
- Paper, pencils
- Space to move

Extension:

View the [Choreographer's Creative Process](#) and have a socratic discussion surrounding the intersection of math and art through physical thinking.

Pre-Assessment:

Provide students with several different examples of choreographic writing. In small groups, try to decipher what the symbols indicate.

Engagement:

Review examples of line plots from previous classes. Compare the line plots and the choreography for similarities and differences.

Activity:

1. Gather students into two teams. Each team must create a line plot with as many segments as team members. Label these as fractions (ie: $1/8$, $2/8$, $3/8$, etc).
2. Ask each member of the group to silently write down where they would like to stand on the line chart. Collect the numbers and place an "x" for each number marked. For instance, if 3 people wanted to stand at $1/8$, there would be 3 "x"'s above that number.
3. Once the numbers have been plotted, the team must now figure out a way for there to be an equitable distribution of "x"'s along the number line.
4. Decide what x's will move and how they will move (curves, slide, etc). Draw this on the paper - this becomes the choreography.

Closing:

Have students line up like the original number line and move as specified in their number line drawing.

Assessment:

In small groups, create a new choreographed dance based on a given line plot from the teacher. Perform for the class.