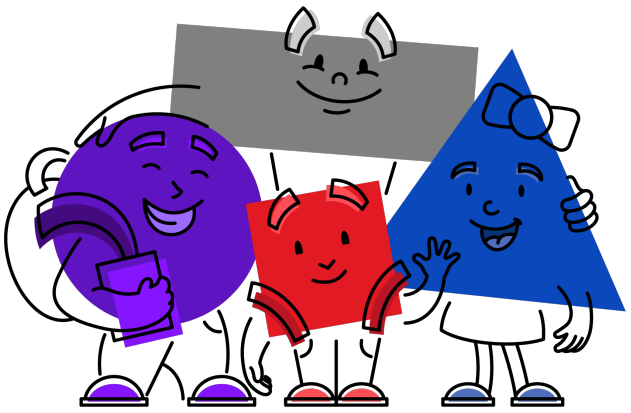
Counting On Kindness: 6-12 Math

Kindness comes in all shapes, sizes, and… numbers!



Use your number sense and everything you know about being kind to complete these kindness-themed math activities.

Kindness Survey

1. Create a survey about different ways to show kindness.
2. Issue the survey to your class, school, or community.
3. Tally the results and create bar graphs or circle graphs to represent the results.
4. Draw conclusions based on the data.
5. Expand into the survey into a mini study.
6. Identify an area to explore and do some research! Here are some examples: What's the connection between kindness and its ability to improve moods? Does kindness depend on the day of the week? Does receiving acts of kindness make someone more likely to commit acts of kindness?

Math Concepts: data collection, graphing, percentages, statistics, data analysis, mean, median, mode, range

Kindness in a Jar

1. Write acts of kindness on slips of paper.
2. Categorize the acts of kindness and record the number of each category.
3. Place the slips of paper in a jar.
4. Discuss the probability of selecting a paper slip from the different categories.
5. As you select slips from the jar, keep a tally of which category you got.

Math Concepts: probability, ratios, experimental vs theoretical probability

Measuring Kindness

It's time for a kindness challenge!

1. Record the amount of time (in minutes) you observe someone doing something kind for another person.
2. Collect data every day for *at least* a week.
3. Create a graph of your data.
4. Analyze your data and discuss trends.
5. Write an equation to represent the trend and make predictions.

Math Concepts: measurement, decimals, graphs, linear functions, slope.

Geometric Art

Create thank you notes that are either designed with geometric art or made out of geometric shapes. As you create your card, explore **symmetry** and **transformations**.

1. Have students create a giant kindness "stain-glass window"
    a. Give each student construction paper to create their part of the window.
    b. On their "window" have them write create a geometric design (can be made of composite shapes) or design the paper with geometric art (e.g., tessellations).
    c. The students "window" must also have a word or phrase that promotes kindness.
    d. Place students in groups and have them put their "window" pieces together to make their stained-glass window.
    e. Have each group present their window and describe it mathematically.

Math Concepts: geometry, transformations, scaling

Kindness Budget

1. You have a “kindness budget” of 100 points to spend on different types of acts of kindness throughout the week.
2. Your teacher has completed the table below with acts of kindness and their associated cost in points. Consider how you might plan to spend your 100 points across these categories and record your plan in the table.
3. As you spend your points by completing acts of kindness, record the amount of points you have spent to keep track of what you have left.
4. At the end of the week, use your table to answer the following:
    a. How many points did you spend in each category?
    b. Convert each category into a percentage of your total points.
    c. Create a bar graph or pie chart as a visual representation of how you spent your kindness points and how kindness was distributed.
    d. How did you actual spending compare with your original plan?
    e. Write a short reflection on how each act made you feel and how the person you were kind to reacted.

Kind Act	Cost	Points I Plan to Use	Points I Spent
	20 pts		
	20 pts		
	10 pts		
	10 pts		
	10 pts		
	10 pts		

Math concepts: Percentages, Budgeting, Data Analysis

Kindness Coordinates

1. Teachers: Print a blank coordinate plane for each student.
2. Plot half of a heart on the coordinate plane, then apply transformations.
    a. Use these coordinates to plot the left side of the heart: (0, -8), (-2, -7), (-5, -5), (-7, -3), (-9, 0), (-10, 3), (-9, 6), (-7, 8), (-4, 8), (-2, 7), (0, 5)
3. Now, reflect the left side coordinates across the y-axis to generate the complete image of a heart.
4. Perform additional transformations given by your teacher, such as translation, rotation, dilation, and reflection.
5. Consider:
    a. Reflection: *Reflect* on a time someone showed kindness to you. How did it make you feel?
    b. Translation: *Translate* this heart to someone who might need it. Who would you share kindness with and why?
    c. Rotation: *Rotate* your perspective. When has kindness helped you see a situation differently?
    d. Dilation: *Dilate* your kindness. Whether big or small, acts of kindness matter. When has someone's small act of kindness made a big difference?

Math concepts: transformations on the coordinate plane