

# Enrich

## Box-and-Whisker Transformations

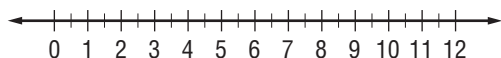
Altering the data used to create a box-and-whisker plot changes the shape and/or location of the plot. Adding to each piece of data will have an effect on the plot. In this activity, you will investigate how adding to or subtracting from the data affects the box-and-whisker plot.

Start with the following data:

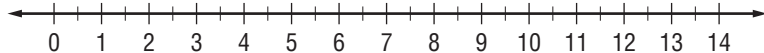
### AGES OF CHILDREN ON A PONY RIDE

2, 3, 5, 4, 6, 3, 8, 9, 2, 4, 3, 5, 2, 6, 3, 2, 9, 11, 7, 7, 4

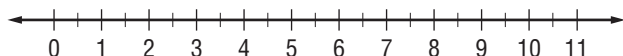
1. Use the data to draw a box-and-whisker plot.



2. Add 2 to each piece of data and draw a box-and-whisker plot for the new data. How does this change the box-and-whisker plot?



3. Subtract 1 from each piece of data in the original set and draw a box-and-whisker plot for the new data. How does this change the box-and-whisker plot?



4. In general, how does the box-and-whisker plot change when you add the same number to or subtract the same number from each piece of data in the set?