

Name: _____ Date: _____

Sound Intensity Worksheet

1. Measure each sound with the sound sensor approximately 6 inches away from the source of sound, then approximately 12 inches away.
2. Use a ruler to measure each distance.
3. Take note of what happens to the sensor reading when the distance to the sound changes.
4. Use the table below to record your data on the loudness of the various tested sounds, and include some of your own choices for sound-making sources in the blank cells.

| Sound Source | NXT Robot Sensor Reading | |
|----------------|--------------------------|------------------|
| | 6-inch distance | 12-inch distance |
| no sound | | |
| clap | | |
| soft whistle | | |
| loud whistle | | |
| telephone ring | | |
| vacuum cleaner | | |
| | | |
| | | |
| | | |
| | | |
| | | |

Notes:

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5. Using your recorded data, create a scatter plot of the sound measurements for both distances. Compare the two and try to include a line of best fit to analyze the relationship of the two.