**Measuring Noise Pollution Worksheet**

1. In the list below, circle the parts you need from your LEGO Kit to build a Noise meter?

(a) A Color sensor (b) A Sound Sensor (c) A LEGO Brick (d) A motor

1. What is a unit to measure sound level?

(a) Meter (b) Hertz (Hz) (c) Pound (lb) (d) Decibel (dB)

1. Now using your Noise Meter, record the sound level in your classroom and write the result in the table below

|  |  |  |
| --- | --- | --- |
| **Experiment** | **Location** | **Noise level (dB)** |
| E1 | A silent classroom |  |
| E2 | Students silent and only the teacher talking |  |
| E3 | A group of students talking or yelling at the other side of the classroom |  |
| E4 | My group talking loudly or yelling |  |
| E5 | A noisy classroom (everybody talking or yelling) |  |

1. From the data recorded above, use a graph paper to plot a bar chart
2. Which experiment produces the highest level of noise? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Which experiment produces the lowest level of noise? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Compute the difference between the teacher's noise and the noise from experiment E3, E4, and E5 and comment about your results:

E3 - E2 = \_\_\_\_\_\_\_\_\_\_ E4 - E2=\_\_\_\_\_\_\_\_\_\_\_ E5 - E2 = \_\_\_\_\_\_\_\_\_

Comments:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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8. What is an example of noise pollution in your neighborhood/community?

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9. What type of noise protection technologies do engineers design to put in place to protect against undesirable noise?

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