$\qquad$ Date: $\qquad$ Class: $\qquad$

## Measuring Light Pollution Worksheet

1. In the list below, circle all the LEGO kit parts you need to build a light meter.
a. sound sensor
b. color sensor c. LEGO intelligent brick d. touch sensor e. LEGO brick
2. Which of the items below is/are a unit(s) to measure light intensity?
a. meter
b. lux (lx)
c. candela (cd)
d. decibel (dB)
3. Using your light meter, measure the light intensity in the classroom.

Record the measurements in the table below.

| Experiment | Location | Light Intensity Level (dB) |
| :---: | :--- | :--- |
| E1 | All lights in the classroom turned OFF |  |
| E2 | One row of lights in the classroom ON |  |
| E3 | Two rows of lights in the classroom ON |  |
| E4 | All rows of lights in the classroom ON |  |
| E5 | Full sunlight |  |

4. Use your collected data to plot a line graph. Use the graph paper on page 2 of this worksheet.
5. Which experiment produces the highest level of light?
6. Which experiment produces the lowest level of light?
7. Examine the levels of light intensity obtained and describe the pattern you see in the data.
8. Describe an example of light pollution in your neighborhood or community?
9. What type of engineering technologies could be put in place to reduce light pollution?

Name:
Date:
Class:


