Handouts: Noise Levels (3 pages)
Skill Builders: Charts & Graphs, Rounding, Tables & Lists

IN THE WORKPLACE: In many industrial settings, hearing protection is vital to ensuring worker health and safety. Workers who are exposed to high levels of noise should limit their time in that environment so that the overall average noise exposure, in an eight-hour day, does not exceed 85 decibels (dBA).

Refer to **Table 1** to locate the answers to the following question.

1. If the information in Table 1 was displayed as a chart, what would the title, and the labels of the x and y axes be?

2. Create a table to represent the following text. Give the table a title that helps describe the information in the table. Label the columns. Include all data points between 85 and 115 dBA. Round times to nearest 0.5 of a minute.

   Extreme noise can have serious negative effects on an individual's hearing. At 85 dBA the maximum recommended exposure is 8 hours. At 88 it is reduced to 4 hours.
   According to the generally-accepted "dBA exchange rate", for every 3 dBA over 85, the permissible exposure is cut in half.

3. Complete the following table for each of the tools shown in column 3 of Table 1 on the next page. Show the dBA for each tool and, using the data in the table you created, how many minutes of exposure is considered safe. Round down the tool dBA to ensure the exposure is safe. The first one is done for you.

TOOL	dBA	Minutes
Arc welder	90	240 minutes (4 hours) *rounded down to 88 dBA

Table 1

dBA	Example	Home & Yard Appliances	Workshop & Construction
0	healthy hearing threshold		
10	a pin dropping		
20	rustling leaves		
30	whisper		
40	babbling brook	computer	
50	light traffic	refrigerator	
60	conversational speech	air conditioner	
70	shower	dishwasher	
75	toilet flushing	vacuum cleaner	
80	alarm clock	garbage disposal	
85	passing diesel truck	snow blower	
90	squeeze toy	lawn mower	arc welder
95	inside subway cart	food processor	belt sander
100	motorcycle (riding)		handheld drill
105	sporting event		table saw
110	rock band		jackhammer
115	emergency vehicle siren		riveter
120	thunderclap		oxygen torch
125	balloon popping		
130	peak stadium crowd noise		
135	air raid siren		
140	jet engine at takeoff		

Ref: Bow Valley College. (2020). Noise Levels. [Table]. Calgary, Canada: Author.