Sound and Music - Lab Notebook Items

For the Guitar String Lab:

Tape the data tables below into the Data section of your lab.

Harmonic Number	Length (m)	Wavelength (m)	Frequency (Hz)	Speed (m/s)
1				
1				
1				
1				

Harmonic Number	Length (m)	Wavelength (m)	Frequency (Hz)	Speed (m/s)
2				
2				
2				
2				

In the space below, clearly show and label your work for the wavelength and the speed calculations for the two tables above.

For the Musical Intervals Lab:

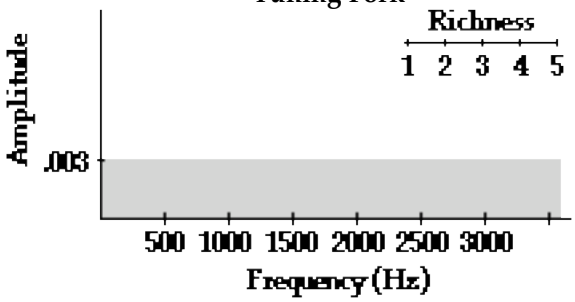
Tape the data table below into the Data section of your lab.

Key A	Key B	Freq. of A (Hz)	Freq of B (Hz)	Ratio: f_B / f_A	Waveform	Pleasant? 1 = No 5 = Yes
					Pressure Time	1 2 3 4 5
					Pressure Time	1 2 3 4 5
					Pressure Time	1 2 3 4 5
					Pressure Time	1 2 3 4 5
					Pressure Time	1 2 3 4 5
					Pressure Time	1 2 3 4 5
					Pressure Time	1 2 3 4 5

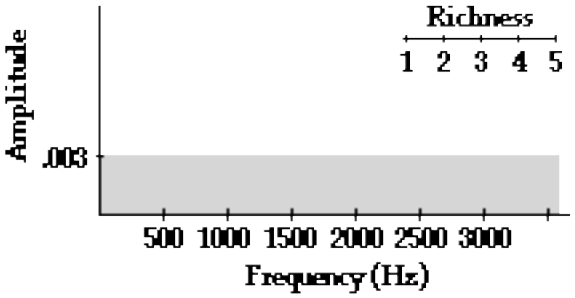
For the Timbre Lab:

Tape the data tables below into the Data section of your lab.

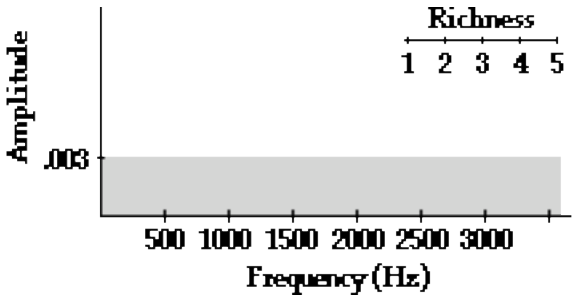
Tuning Fork



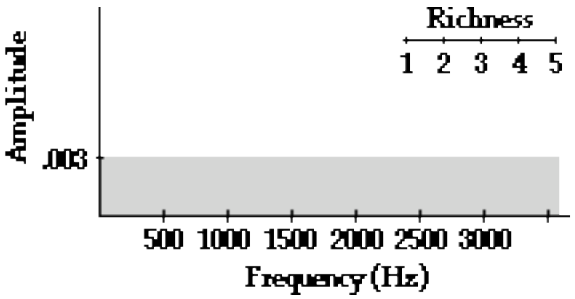
Brass Ensemble



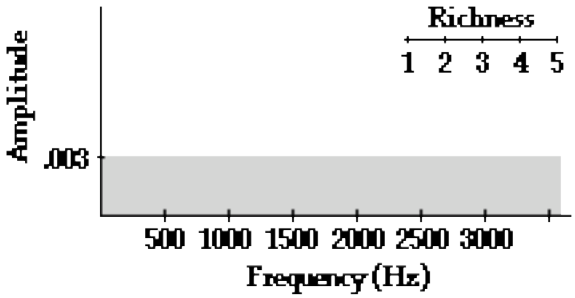
Waw Voice



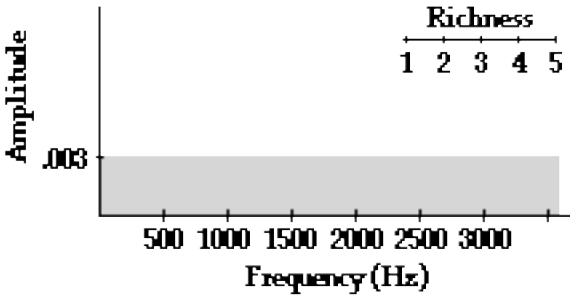
Electric Piano



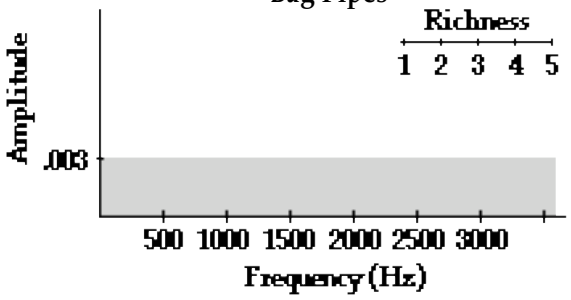
Flute



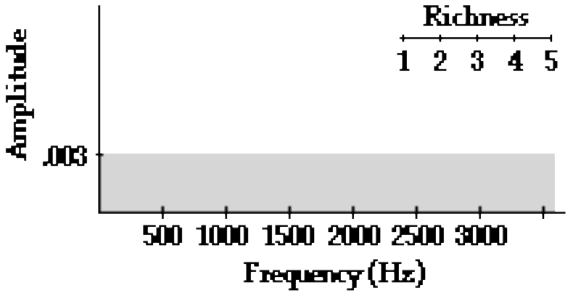
Glass Harmonica



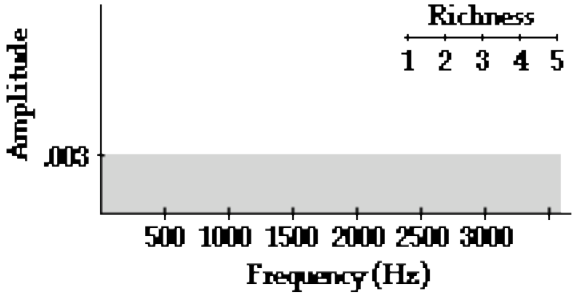
Bag Pipes



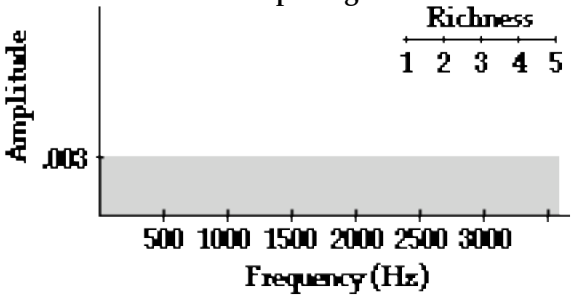
Tuba



Whistle



Pipe Organ



Natural Frequency and Standing Wave Patterns
(Tape the following table into the Data section of your lab.)

Holding Position	**Dominant Frequency (Hz)**	**Other Frequencies (Hz)**	**Standing Wave Pattern**
1/2-mark			
1/4th-mark			
1/6th-mark			
1/8th-mark			
1/10th-mark			

Musical Scales Lab
(Tape the following table into the Data section of your lab.)

Key #	Note	Frequency (Hz)
1	F_3	174.6
2	$F_3^{\#}$	184.8
3	G_3	195.9
4	A_3^{b}	207.7
5	A_3	220.0
6	B_3^{b}	233.2
7	B_3	246.9
8	C_4	261.7
9	$C_4^{\#}$	277.5
10	D_4	293.8
11	E_4^{b}	311.0
12	E_4	329.3
13	F_4	348.7
14	$F_4\#$	370.5
15	G_4	392.2
16	A_4^{b}	414.5
17	A_4	439.9
18	B_4^{b}	466.5
19	B_4	494.1
20	C_5	522.0
21	$C_5^{\#}$	553.7
22	D_5	586.2
23	E_5^{b}	622.0
24	E_5	658.0
25	F_5	699.8
26	$F_5\#$	741.5
27	G_5	781.3
28	A_5^{b}	833.8
29	A_5	876.8
30	B_5^{b}	933.0
31	B_5	989.2
32	C_6	1050.4