

## INSTRUMENTAL FREQUENCIES

These are generally accepted humanly audible frequencies, from low fundamental to high fundamental, and do not include the harmonic overtone series that provides the richness and sheen of instrumental tone. These measurements reflect frequencies of the modern "Tempered Scale". In brackets are alternate measurements, some including harmonics. Please send your information on other scales. Thank you.

### PERCUSSION division:

Castanets	500 Hz (B4) to ___ Hz (...) [15,000]
Celeste	261.63 Hz (C4) to ___ Hz (...) [10,000]
Chimes	523.25 Hz (C5) to 1396.9 Hz (F6) [15,000]
Cymbals	300 Hz (D4) to ___ Hz 14,000 (...)
Drums:	-
Kick	52 Hz (G1#) to ___ Hz (...) [5500}
Snare	82.407 Hz (E2) to 14.080+ (A_#) [15,000]
Toms	
Glockenspiel	784 Hz (G5) to ___ Hz (...) [15,000]
Gong	300 Hz (D4) to ___ Hz (...) [15,000]
Tambourine	500 Hz (B4) to ___ Hz (...) [15,000]
Timpani	87.307 Hz (F2) to 174.61 Hz (F3) [5000]
Triangle	500 Hz (B4) to ___ Hz (...) [15,000]
Xylophone	130.81 Hz (C3) to 2793.8 Hz (F7) [15,000]

### STRING division:

Guitar	48.999 Hz (G1) to 698.46 Hz (F5)
Bass Guitar	
Harp	32.703 Hz (C1) to 3136 Hz (G7)
Harpsichord	
Piano	27.5 Hz (Ao) to 4186 Hz (C8) – standard 88
Violin family:	
Bass Viol	41.203 Hz (E1) to 246.94 Hz (B3) [9500?]
Cello	65.406 Hz (C2) to 659.26 Hz (E5) [15,000?]
Viola	130.81 Hz (C3) to 1046.5 Hz (C6) [1100?]
Violin	[190?] 261.63 Hz (C4) to 2093 Hz (C7)

### WIND division:

Accordion	48.999 Hz (G1) to 1661.2 Hz (A6)
Bassoon	58.270 Hz (A1#) to 622.25 (D5#) [14,000?]
Eb Contrabass	34.048 Hz (C1#) to 246.94 Hz (B3) – sarrusophone
Clarinet	146 Hz (D3) to ___ Hz (...) [14,500]
bass Clarinet	80 Hz (E2) to ___ Hz (...) [15,000]
Bb Coronet	
Flute	261 Hz (C4) to ___ Hz (...) [15,000]
Horn family:	
English	164.81 Hz (E3) to 932.33 Hz (A5#) [8500?]
Fluegelhorn	164.81 Hz (E3) to 880 Hz (A5)
French	61 Hz (B1) to ___ Hz (...) [8200]

Post-horn	
Bb Trombone	55 Hz (A1) to
Trumpet	164.81 Hz (E3) to 1046.5 Hz (C6)
Bb Bass Tuba	41.203 Hz (E1) to _____ Hz (...) [7500]
Eb Bass Tuba	
Oboe	233.08 Hz (A3#) to 1396.9 Hz (F6)
Piccolo	587.33 Hz (D5) to 3729.3 Hz (A7#) [15,000?]
Saxophone family:	
Bb Bass	[55 Hz to 14,5000]
Eb Baritone	51.913 Hz (G1#) to 415.3 Hz (G4#)
Bb Tenor	103.83 Hz (G2#) to 622.25 Hz (D5#)
Eb Alto	138.59 Hz (C3#) to 830.61 Hz (G5#)
Bb Soprano	200 Hz (G3) to 1244.5 Hz (D6#)
Pipe Organ	16.351 Hz (Co) to 18,794.4 Hz (D10)
Human Voices:	
Bass	110 Hz (A2) to 392 Hz (G4)
Baritone	146.83 Hz (D3) to 440 Hz (A4 - weighted low)
Tenor	146.83 Hz (D3) to 440 Hz (A4 - weighted high)
Alto	196 Hz (G3) to 698.46 Hz (F5)
Soprano	261.63 Hz (C4) to 1046.5 Hz (C6)
Animal Voices:	
Bird Voices:	
Marine Voices:	
Blue Whale	[near zero] ~22 Hz (Fo) to 52 Hz (G1#)
Humpback Whale	
Porpoises	

Deep in the ocean (3,000 ft.) are currents that act as natural channels to horizontally disperse whale communication far around the world – an absolutely incredible finding. If the world's fisheries and navies and oil companies would leave whales alone, their lives would be a lot better off.