

**Microphone Techniques for Ensembles: Live & Recorded Sound by Barbara Freedman
Author of *Teaching Music Through Composition: A Curriculum Using Technology*
Oxford University Press, 2013**

<http://MusicEdTech.com>

“Teach music. The technology will follow.”

Basic Definitions:

Panning: moving sound across a linear spectrum, right to left ear

EQ: equalization: manipulation of specific frequencies or ranges of frequencies

Frequency: how often sound waves per second, measured in Hertz or kilohertz (Hz or kHz), pitch

Amplitude: Height of the sound wave, volume

Compression: reduction of amplitude (volume) of sound waves above a specified level. Reduces dynamic contract so louder sections can be made softer and softer sections can be made louder.

Reverb (reverberation): as an effect, simulates a room

There are dozens of resources for these. Here's are just a few:

General Micing Techniques

<https://lossenderosstudio.com/article.php?subject=11>

Blumlien Micing: <https://musicproductionnerds.com/blumlein-mic-technique>

Choir Micing

<https://www.sweetwater.com/insync/how-to-mic-choir/>

<https://www.sweetwater.com/insync/miking-choir-with-earthworks-flexwand-730-mics/>

<https://www.dpamicrophones.com/mic-university/how-to-mic-a-choir>

<https://www.shure.com/en-US/performance-production/louder/how-to-mic-a-choir>

Band Micing

https://www.midwestclinic.org/performance_tips.html

<http://www.richardbrice.net/microphone%20technique.htm>

Micing an Amplifier

<https://www.sweetwater.com/insync/how-to-mic-a-guitar-amplifier/>

<https://www.soundonsound.com/techniques/miking-guitar-amps-stage>

<https://www.guitarplayer.com/technique/3-essential-miking-techiques-for-amps>

Piano Micing: <https://www.sweetwater.com/insync/piano-miking-techniques-for-worship-services/>

Recording Vocals: <https://www.reasonstudios.com/blog/recording-vocals-and-selecting-a-microphone>

Sites for Information:

PreSonus Learn: <http://www.presonus.com/community/learn>

Rode University: <http://www.youtube.com/rodemicrophones>

Shure Audio Institute: <https://www.shure.com/en-US/support/shure-audio-institute>

Five Minutes to a Better Mix: <http://therecordingrevolution.com/5minutes/>

Articles:

Tips on Clarifying Your Sonic Imagery: http://tweakheadz.com/pan_control.htm

The Music Mixing Process: <http://www.music-production-guide.com/music-mixing.html>

The Art of Panning: <http://www.teachmeaudio.com/production/mixing/4-techniques/11-art-of-panning>

Basic Guide to Understanding EQ: <http://www.bhphotovideo.com/find/newsLetter/Understanding-EQ.jsp>

Learn EQ by PreSonus: <http://www.presonus.com/community/Learn/Equalizer-Terms-and-Tips>

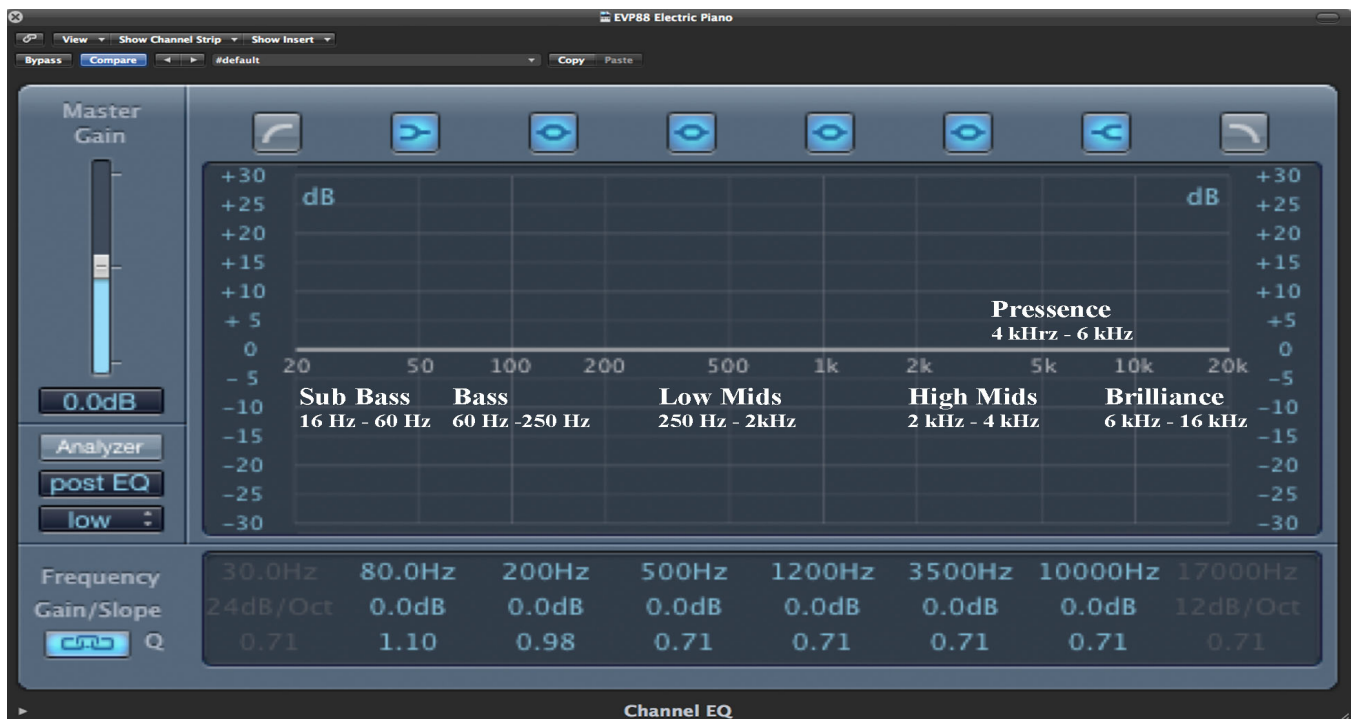
What is Compression: <http://aidermusic.com/compression-pt-12-what-is-a-compressor-199>

Dynamics Processing by PreSonus: <http://www.presonus.com/community/Learn/Dynamics-Processing-Terms-and-Tips>

Books:

- *Recording Tips for Music Educators: A Practical Guide for Recording School Groups* by Ronald E. Kearns published by Oxford University Press
- *The Recording, Mixing, and Mastering Reference Handbook* by Karl Pedersen and Mark Grimshaw-Aagaard published by Oxford University Press
- *Audio Mixing Boot Camp: Hands-On Basic Training for Musicians* (Book & DVD) by Bobby Owsinski published by Alfred Publishing
- *The Art of Mixing: A Visual Guide to Recording, Engineering, and Production* by David Gibson published by ArtistPro Publishing
- *The Mixing Engineer's Handbook* by Bobby Owsinski published by Thompson Course Technology

EQ Chart by Barbara Freedman



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Building and outfitting labs & studios

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& Online Courses

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GarageBand, Logic Pro X
Music composition for K-12 educators
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Google products
Learning Management Systems: Schoology, Canvas, Moodle,
Blackboard

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