Voice Training 101
The Singing Voice

- The lungs push air up through the trachea
- The vocal fold sits in the larynx on the top of the trachea and vibrates the air to create the fundamental pitch as well as harmonics that color the tone
- The sound produced by the vocal fold then moves along with the air into the pharynx and the oral cavity where it begins to resonate, which reinforces the harmonics present in the tone
- The jaw, tongue, teeth and lips shape the sound into vowels and consonants
Good singing starts with solid, consistent air pressure from the lungs.

The vocal fold must be relaxed and low in the throat so it can vibrate freely and create a pleasant sound.

The pharynx and the oral cavity at the back of the mouth must be opened fully to resonate, which provides the voice's volume and a warm ringing tone.

The jaw, tongue, teeth and lips should only be closed enough to enable good enunciation.
The Singing Voice (cont)

- The singing voice has two registers commonly called the chest voice and the head voice (or falsetto).
- These registers are defined primarily by the configuration of the larynx and how the vocal fold vibrates the air passing through it.
- The references to a middle register actually refer to a blended tone from both the chest and head registers.
- The transition between chest voice and head voice is commonly called the break.
- Lower notes are generally sung with the chest voice and higher notes are sung blended or in the head voice, but there will be a handful of notes that can be sung with either chest or head voice.
- There is usually a marked difference in volume and tone of the chest and head voices in untrained singers, but training can smooth out the transition and create a blended range that makes the best use of both registers.
Preparing to Sing

- Proper breathing is the foundation of all singing and good posture is the only way to breathe properly.
- To get into the correct posture, imagine you are dangling from a string tied to the top of your head. Your neck, shoulders and back are hanging straight with the muscles relaxed.
- Breath in through both the mouth and nose with the throat as open as possible to allow air to move quickly without a pronounced hissing sound.
- When breathing in the stomach should move out and down and the chest should expand out, but the shoulders should not need to lift.
- If you need to hold your breath before beginning to sing, leave the throat open and keep the air in the lungs by keeping the diaphragm and lower back muscles extended.
Singing

- Singing should be a smooth, relaxed process of vibrating and shaping the air you push from your lungs
- Singing starts by opening your mouth to prepare to produce the starting vowel or consonant you wish to sing
- The throat and oral cavity should be open and the vocal fold should be relaxed, as if you are just about to yawn
- Use the muscles in the diaphragm, abdomen and lower back to produce a consistent stream of air out of your lungs by engaging them smoothly and building to full pressure
- Fix the pitch you want to sing in your mind and then engage your vocal fold to produce it with as little neck muscle tightness as possible
- Listen carefully to tune the pitch and tone as you sing
- Use dynamics to give life to melodic lines and emphasis to lyrics
- Use vocal ornamentation like slides, slurs and vibrato sparingly and only as required to properly interpret the song
Pitch

- A sung pitch is the frequency that the vocal fold vibrates the air passing through it
- Singing on pitch requires both constant listening and good muscle control of the vocal fold in the larynx
- Singing well together requires careful attention to both your voice and the voices of the other people in the group to either match pitches or to harmonize
- The range of pitches that a person's vocal fold will produce is primarily a function of their natural length and thickness
- The vocal range is flexible and can be improved through practice, but there is still a limit based on physiology that cannot be avoided
- Sometimes at the high end of the vocal range, a note may be sung either in chest or head voice and it may take some experimentation to determine how to sing those notes comfortably in a particular phrase
The tone of the singing voice is created in the resonating pharynx and oral cavity and is focused as it is passed through the jaws, tongue, teeth and lips.

A properly focused sound will cause a buzzing or tingling in the teeth, lips and nose.

The vocal range is a function of the length and thickness of the vocal fold, but a singer's vocal part classification is determined by the frequencies where the tone naturally resonates based on the size and configuration of the throat, mouth and sinuses.

For example, a tenor's voice resonates or rings most strongly between middle C and high C even though he may be able to sing down to the same low C pitch as a bass singer.

Your voice's tone sounds differently inside your head than it does to others listening to you, so practicing with a tape recorder can be a help to determine and practice singing with a proper tone.
Dynamics

- The strings of an acoustic guitar set up vibrations that resonate in the body of the guitar which naturally amplifies their sound.
- Playing a guitar's strings harder or softer controls its dynamics, but the essential volume of the guitar is a function of its resonating body.
- Air from the lungs that flows through the larynx is vibrated by the vocal fold and resonates in the pharynx and the oral cavity.
- Increasing or decreasing the air pressure through the vocal fold controls vocal dynamics, but the essential volume of the voice is a function of the resonating pharynx and oral cavity.
- Trying to singing loudly and powerfully simply by increasing the flow of air through the larynx will cause the vocal fold to tighten to handle the increased air pressure and that will produce a distorted and unpleasant sound.
- Singing loud dynamics requires opening the resonating space more fully and ensuring the tone is focused toward the front of the face.
Singing is a type of complex communication that uses music and lyric to convey something more than the meaning of the words alone.

Without clear diction, you rob the listener of almost all of the meaning of the song.

Always use warm, open vowels, even if that means changing the sound of the word slightly, because pinched vowel sounds are not pleasant when sung and do not project well.

Clearly enunciate hard and soft consonants in words.

Always move as quickly as possible from consonant sounds to vowels and sustain the vowels as long as possible before switching to a consonant.

When adjacent words in a phrase end and start with the same consonant or vowel, run them together and sound them only once.
Ornamentation

- Vocal ornamentation has been made popular in more relaxed and contemporary styles of singing, but can lead to bad singing habits.
- Sliding into starting or ending notes may sound good in country music, but in more formal music it will sound like the singer has problems with finding the right pitch.
- Slurring between notes in a phrase sounds sloppy and is hard to blend with; always try to sing each pitch distinctly and consistently, especially at the start and the end of the note.
- Vibrato is a naturally occurring oscillation of the diaphragm that creates slight variations in a volume, and sometimes the pitch, of a sung note. Accentuating it for effect creates problems for others singing with you as they try to blend.
- Just like at Christmas, you don't put the ornaments on the tree until after it is securely mounted on the floor, so do not simply throw ornaments on a song until you know the song well and have determined they are a truly necessary style element.
Interpretation

- A song for the solo voice or choir is the blending of a lyric setting, melody and harmony to communicate something to the listener on multiple levels.

- Good songs use some kind of common musical vocabulary to support and expand the meaning of the lyric and good singers use nuances in the music and the lyric to tune their performance to interpret the song for the listener.

- First, learn the notes and lyrics well enough to be comfortable singing the song without having to look at each word and note.

- Then learn the dynamic and tempo markings while singing to add another dimension to the lyric and melody.

- Once you are comfortable with the lyric, notes, dynamic and tempo, start thinking about how to charge the meaning in the words using short pauses, tone coloring or other kinds of vocal emphasis.

- Record yourself and ensure that the effect you want to achieve is not overshadowed or distracted by meaningless ornamentation.
Singing Together

- Singing together requires confidence in your own part, awareness of your own voice and a careful ear for the pitch, tone, dynamics and diction of the other singers.
- Most importantly, singing together requires matching pitches for unison or harmony parts since even a quietly dissonant note is noticeable in an otherwise perfect chord.
- Matching vocal tone will ensure that the sound of group blends together pleasantly.
- The dynamics must match so no single voices stand out.
- Good diction matching generally takes the most practice to achieve since most people tend not to sing vowels consistently and everyone must know their music well enough to look up and follow the director so they can start and end together.
- It is best to avoid any superfluous ornamentation when singing in a group because it makes it more difficult to create a good blend.
Final Tips

- Singing with a relaxed vocal fold, opening the pharynx and oral cavity, and focusing the tone forward will allow for the best sound.
- Listen carefully to the accompaniment and other singers to match pitches correctly.
- Sing with a forward, face-buzzing tone and listen to match those singing around you.
- Never sing so loudly you cannot hear people near you.
- Enunciate clearly and use open vowel sounds to ensure the listener can understand the lyric.
- Do not add ornamentation unless it adds meaning to the song.
- Think about what you are singing and try to make a connection with the listener.
- When singing together, sing strongly and confidently enough to contribute to the group, but do not sing so loudly that you cannot hear your neighbors.