



The Kikuchi Music Institute Library

KIKUCHI
VOCAL METHOD
DICTION
(Level 1)

By Lee W. Kikuchi

The ***Kikuchi Vocal Method*** is a wonderfully new systematic vocal teaching approach unlike any other method currently available. The Kikuchi Vocal Method includes coordinated books in **four** areas of instruction: *Lesson*, *Vocalise*, *Diction*, and *Songs*, and Level 1 is intended for students ages 12 and older. Students under the age of 12 should be given *Kikuchi Vocal Method Primer Level* to prepare for this book. Since the student is expected to receive (or to have had) piano training with accompanying theory, this method system does not address issues of theory or music reading except when they specifically relate to the voice. The student is expected to learn the general music concepts through study of the piano and the vocal concepts through this vocal method system. The *Lesson* book introduces each new vocal concept with short musical examples to practice. The *Vocalise* book contains vocal exercises which should be performed daily to help build the vocal technique, and develop the student's daily warm-up routine. The *Diction* book covers issues of language, phonetics and pronunciation as they apply to singing. As the student advances to the other levels, the *Diction* book will include study of other languages, namely pronunciation rules and basic vocabulary. The student then synthesizes the skills learned in these three books by learning the repertoire songs provided in the fourth book, *Songs*. This book is a sampling of actual vocal literature of all types: hymns, children's songs, folk songs, popular songs and classical literature arranged in order of difficulty. Since these songs will not contain any new material, the student should be assigned them to learn without any teacher preparation as a way of testing what the student has mastered to-date. This series progresses through Levels 1, 2 and 3 after which the student is will be prepared to study the standard operatic and concert literature. The author is currently writing intermediate materials to follow the Level 3 books, primarily in the areas of Italian, German, French, Spanish and Russian diction, that should be available in a few years.

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Preface

Diction (Level 1) is my first installment in the Kikuchi Vocal Method series simply because of need. However, the other books in this level are close to completion and will be available soon. At the Kikuchi Music Institute, most of our beginning students in the Voice Department, are adults, and whereas it is quite possible to purchase materials to teach theory, sight singing, music reading, vocalization and songs – there are really no reasonable step-by-step method books for teaching *diction*. All the ones I have investigated have been too difficult, too technical and too lacking in good step-by-step exercises to help drill the concepts. In addition, the vocal materials currently available do not approach singing with the solid progressive system that is found in piano method books. They assume the student already knows music, and can carry a tune. Therefore, the Lesson book will be the next one available to help all our students who are true beginners.

The Kikuchi Vocal Method series will have three levels and four books at each level: Lesson, Vocalise, Diction, and Song (repertoire). Since this is the first book to be published in the Kikuchi Vocal Method series, many students will be assigned it directly before the other books have been published, because the need for studying diction is just that great.

This system assumes that the student knows nothing about music, and can be used for children as well as adults. However, Level 1 of this series has been written with the adult singer in mind and should be used for students ages 12 and older. Many teachers refuse to accept voice students before age 12, but since the Kikuchi Music Institute enrolls many voice students under age 12, a special set of Primer Level books will be published to help prepare those young students for the Level 1 of the series. Students age 12 and over as well as students who have completed the first level (primer) books in piano may begin directly with Level 1.

The Kikuchi Vocal Method - Primer Level is specially designed for the younger voice and will teach many basic concepts much more slowly. There will be two Primer books: *Voice* and *Language*. The Primer *Voice* book starts with pre-staff notation, and on the black keys (with pictures to help students find notes) to coincide with many of the piano methods. It will contain basic instruction on breathing, singing, and pitch matching, with coordinated exercises and songs. Teacher accompaniments are provided as insert boxes, so that the student is not confused by trying to pick out their melody line in complex music and to preserve the reading sequence of pre-staff, lettered note and big note notation. The Primer *Language* book will give the student important foundation for the Diction book at Level 1 by addressing issues of vowels, consonants, spelling, grammar and vocabulary, to ensure that the student is prepared for study of diction, regardless of his or her grade level in the traditional school. The Primer books should be completed in about one year's time, commensurate to the student's progress on the piano.

In vocal training, *diction* is the application of linguistic phonetic rules to the techniques of singing. Since all our students are English speakers, all phonetic concepts are introduced using the English language as basis. Once the concepts are mastered, and the student has been introduced to the International Phonetic Alphabet, study of other languages may commence. In fact, it is traditionally accepted in the vocal pedagogy world that Italian is the preferred first language for vocal study (even before native English) because it has pure vowels and easier spelling rules. The Level 2 book therefore proceeds with studying the basics of Italian (pronunciation rules and simple vocabulary). Further, since the pronunciation rules are so similar and so much music is written in it, introduction to Latin is included as well.

To quote Dr. Robert Page (the nation's leading choral conductor), "We don't sing English. We sing special sounds that to the listener *sound like* English." This is **diction**. In singing, we must prolong vowels in a way totally unnatural to normal speech. We must modify vowels in the higher ranges of the voices to preserve a good vocal sound. We must change the aperture of the mouth to help preserve vowel and vocal quality throughout the range of the voice (vowels are determined by

overtones, and the shape of the mouth can either distort or preserve the correct vowel sound by enhancing or de-emphasizing certain overtones). We must also learn how to manage consonants, both in their rhythmic placement but also in how they work with the vowels that come before or after them. We must execute consonants with energy so that they carry across a large concert hall or over the sounds of the accompanying piano, and we must also not let consonants break-up the beautiful melody line of the voice.

All of these important techniques are a part of diction. We must learn them for English as well as several other important languages in singing. All the major choirs in the world sing works in the primary European languages: English, Italian, Latin, German and French. In addition, more professional groups will also undertake Russian, Spanish, Hebrew and Church Slavonic. Once the student has mastered the basics of phonetics and diction, including a full mastery of the International Phonetic Alphabet, the application of those skills to the other languages is easy. Although a basic knowledge of any language is best, the IPA makes it quite possible to sing effectively in any foreign language with good guidance from the coach, director or teacher.

Since singing involves prolonging vowels and the rhythmic placement of consonants, voice students must understand the linguistic aspects of the language necessary to execute both these functions precisely. In addition, vocal training must address issues of diphthongs and vowel tracking throughout the range of the voice. Without a firm background in phonetics, these techniques will be both difficult to understand as well as to practice.

As a component in the Kikuchi Vocal Method series, this book will teach the student the linguistic rules of phonetics as well as the vocal techniques needed to apply them to singing. The lessons are step-by-step to insure that the student learns and retains the concepts systematically and important exercises are included throughout so that the student may practice the techniques regularly until they become well ingrained. As with all learned processes, daily repetition is overwhelmingly important if these techniques are to be retained and applied.

In my years of teaching before the publication of this book, I generated worksheets to help my students learn the basics of diction, and I must admit those worksheets have had only a minimal success at best. I have come to realize that the primary reason was the lack of a step-by-step approach to the material and lack of adequate exercises to drill the concepts. So, instead of working hard to fix those worksheets, I have decided it was best to begin work on the vocal method series so that a comprehensive workbook for Diction (this book) could be developed.

Before any serious study of diction can commence, it is first necessary to establish a working vocabulary. This vocabulary comes primarily from the linguistic science of phonetics, but it includes some medical terminology as well. The first half of Diction Level 1 will teach the basic concepts and vocabulary of phonetics and will address the issues of singing on the vowel and the rhythmic placement of consonants. The second half of Diction Level 1 will introduce the International Phonetic Alphabet (IPA) so that a more complete study of diction can be pursued. The IPA makes it much easier to teach the necessary diction vocalises and the pronunciation rules for foreign languages. The student will learn exercises to practice forming good pure vowels and producing clean understandable consonants, and the exercises will use the IPA for clarity. In fact, understanding diphthongs and triphthongs without using the IPA is very difficult at best.

Level 2 continues the student's mastery of the IPA with regular and systematically graded exercises for reading and translating to/from IPA. All exercises in Level 2 and beyond that do not use English words will be written in the IPA and the student will be expected to use it regularly in all songs and vocalises. At this level the student will study vowels and diphthongs in greater depth to discover the finer nuances of proper diction. Singing exercises will drill important techniques of elision and multiple consonant (cluster) execution, as well as greater complexities of rhythm and pitch patterns. Level 2 will also introduce pronunciation and diction rules for the Italian and Latin languages so the student may begin study of Italian Arias and solos from the Latin Mass.

Level 3 will continue to review and build upon all techniques acquired in Levels 1 and 2, and will introduce pronunciation and diction rules for German and French. The student will also learn

the different pronunciation rules for Germanic, Italianate, Vulgate and Academic Latin. As a part of language study, the student will be required to learn about 100 words in each of these language, as well as how to conjugate key verbs in the present tense ('to be', 'go', etc.) and other simple grammar concepts. The student will be taught important skills on how to approach new songs in a foreign languages, such as writing IPA over words that are unfamiliar, translating texts, nuances of pronunciation and expressing meaning in a foreign language.

All the Diction books Levels 1-3 will be coordinated closely with the Lesson, Vocalise and Song books of the series so that the student will have ample practice in applying the diction skills learned. Throughout this book exercises have been included to help the student practice and apply the skills right away. In the other books, the exercises and songs are designed to synthesize all the skills together: diction, sound production, and expression. Even though this book should not be assigned without the supporting material found in the other books of the series, there is ample material within this one book for the student to drill and master the diction skills separately.

By completion of Level 3 the student should be fully competent to sing in a professional choir, but to sing solo (especially in other languages) the student should continue study at the intermediate and advanced levels. In order to learn and perform arias and songs in foreign languages, the student must acquire more knowledge of the language than the basics provided in these beginning books.

Beyond Level 3 the author is considering developing a much more in-depth diction books for each primary language (English, Italian, French, German, Latin) as well as supplementary ones for Spanish and Russian. A workbook for the war-horse, *Twenty Four Italian Songs and Arias*, will be developed to help students learn this fundamental and important material through readings, written exercises, vocabulary builders, musical analysis and preparatory technical exercises. Any books beyond Level 3 would not be part of a method series, but will be stand-alone texts/workbooks for continued study at the intermediate and advanced levels. At the Kikuchi Music Institute, these books would be part of the Music Appreciation or Young Artist Programs, and music schools might choose to use them for their entering freshmen.

This method series is truly a wonderful new approach to singing, and one which heretofore has not been approached. It teaches singing in a step-by-step sequence that is parallel to what the piano method books use, especially in regard to playing in keys and is in fact is designed as a "play and sing method" so that the student is capable of accompanying him or herself. The four area approach insures that the student learns all aspects of singing: reading music, sight singing, ear training, diction, foreign language, harmony, duets, trios, 3- and 4-part harmony, choral singing and learning solo repertoire. The Kikuchi Vocal Method expects the student to understand all the music fully every step of the way (including the accompaniment). Teachers should never resort to rote learning or playing/singing on tape for the student to learn the songs. Anyone with a reasonable ear can learn by imitating recordings, and students do not need to pay the high cost of music lessons to develop that skill. **The goal of this method is to give the voice student all the knowledge and skills needed to learn new music without having to resort to listening to recordings or rote learning.**

Lee W. Kikuchi
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Introduction

This book is a workbook and an exercise book. It is important to do all the written exercises in sequential order to learn and to master the important diction concepts. Likewise, it is also important to do the vocal exercises daily until they become internalized. Studying music is like studying a foreign language or math, because of the amount of repetition needed to solidify the processes and concepts in the mind. The beginning study of diction is like studying a foreign language because it involves examining the English language with the same tools one might use to learn a foreign language. This includes not only pronouncing the words correctly and producing the sounds of the words to form musically appealing phrases, but also meaningful expressions of language. Then, once the student is advanced enough, the study of diction is exactly the same as studying a foreign language as the student begins studying Italian, German, Latin and French.

The **written exercises** are designed to establish a clear understanding of the linguistic principles and the **spoken or sung exercises** are needed to internalize them and make them automatic. It is important to practice the exercises daily (whether speaking or singing) until they are fully mastered, especially the ones that help drill the use of the International Phonetic Alphabet (IPA). All singers must have full mastery of this alphabet as an aid for pronouncing the many different languages we sing in.

A **glossary** is provided at the end to serve as a quick reference in case the student forgets any important terminology already taught. These books are written at an adult level, and the author realizes that some words may not be familiar to a student still in middle school or high school, and this glossary includes those terms as well. Such words are primarily linguistic or physiological terminology. A glance at the entries in the glossary can give the new student a quick understanding of exactly how much material must be learned at this level. Likewise, a read-through of the glossary after completing the book can be a good test to see how much the student has retained.

Review pages are provided throughout the *Diction* book to test the student's retention of terminology and concepts presented to-date. The student should do these review exercises without referring to any other pages in the book, and without looking up answers in the glossary. This way the teacher will know what needs extra review before proceeding to the next lesson. The review pages are designed to make the student think carefully, to ensure that the student can actually apply the concepts and not simply recite rules and definitions verbatim.

What is Diction?

Diction means *making the sounds of a language correctly so that it is understood by the listener*. There are several words that relate to diction: *pronunciation* (knowing how to pronounce a word correctly), *spelling* (how the sounds of the word are represented by letters), and *enunciation* (saying each sound clearly – very similar to diction). All professionals in the audio/visual media must know the basic principles of good diction and must apply them constantly so that their listeners understand what they are saying. Singers must master the rules of diction to a much finer degree, and must apply them to even more difficult situations because singing is very different from speaking. For example, words are sung more slowly and over a longer time period, and vowels are often sustained in a way that is not natural to speech. Also, the sounds produced will often sound much different in the different ranges of the voice. Yet further, singers must produce sounds that will carry over a piano or an orchestra and across a large concert hall filled with people. All of these issues of acoustics make diction a very important part of singing technique that requires many years to master (much more than what a newscaster would require). In addition, all singers must study the primary foreign languages (Italian, German, French and Latin) to a minimal level just so that they learn the pronunciation rules, and enough basic vocabulary to be able to express the meanings reasonably. Professionals will always do the extra work to know all the words and expressions they are singing so that they can communicate the meanings with exactly the correct nuances as well as the correct pronunciation. In this regard, a singer's study of diction is never ending because each time the singer prepares a new operatic role or song in a foreign language, she or he must learn new words and expressions in that language.

Fill in the blanks:

1. _____ means making the _____ of a _____ correctly so that it is _____ by the _____.
2. Singers have to study diction more extensively than newscasters because: 1) Words are sung more _____ than natural speech, 2) Sounds of the language will sound different in the different _____ of the voice, 3) The sounds must carry over a _____ or _____ and must be heard by audiences in large _____, and 4) Songs can be in different _____.
3. When singing in a _____ language it is important to know how to _____ the words, as well as the _____ of the words so that the singer can _____ the language with the correct nuances to the listener.

Phonetics

In the English language many letters represent more than one possible sound depending on the spelling of the word. In each of these words: 'time', 'pin', 'tangerine', 'onion', 'nation', and 'squirt' the letter 'i' has a different sound and even a different linguistic function (as in 'nation', where the 'i' makes the 't' into 'sh' and is not even pronounced)! Consonants do the same thing, as we know that 'c' is sometimes 's' and sometimes 'k', but many consonants change sound depending on the word. Notice the different sounds for 's' in the following words: 'sing', 'use', 'confusion', and 'sure'. English is often considered a difficult language to learn because the spelling is not *phonetic* (does not match the sounds of the words), but many languages have this issue to some extent and in singing we must be quick-change chameleons in order to pronounce words in different languages. Even if the rules of one language seem to be regular within itself, the letters will often result in sounds that are very different from what they are in English. For example, in Italian, 'c' is often 'ch' as in 'chicken' and 'ch' is always 'k' as in 'kite'. In both Italian and German 'z' is 'ts' as in 'pizza' but in French and Spanish it is 's' as in 'feliz'. Whether or not the rules for spelling are consistent and regular as in Italian, or seemingly complex and irregular as in English, singers must learn the rules for pronunciation carefully and master them thoroughly to be able to execute proper diction regardless of the language. Therefore, for many decades singers have learned and relied upon the principles taught in the branch of linguistics known as *phonetics*. We learn how to recognize, understand and produce all the available sounds in the various languages without relying upon the letters that represent those sounds. In the examples above the initial sound of 'sure' and 'show' are the same sound, just as the vowel sound in each of 'shoe', 'two', 'prune', and 'loop' are the same. We learn to convert the spellings quickly into the actual sounds they represent so that we can produce them correctly when we sing.

Fill in the blanks:

1. The branch of linguistics known as _____ is more concerned with the actual _____ in a language than with the _____ used to _____ them.
2. The _____ letter can represent _____ sounds in a language and the _____ sound can be represented (spelled) by _____ letters.
3. English is often considered a _____ language to learn because the _____ does not match the _____ of the words.
4. In singing, we learn to _____ the spellings quickly into the actual _____ they represent so that we can sing them correctly.

Vowels

In school we learn that the vowels in English are ‘a’, ‘e’, ‘i’, ‘o’, ‘u’ and sometimes ‘y’. This is a definition that describes the letters of the English alphabet, but does not actually describe the vowel sounds themselves. In phonetics and in singing, we are much more concerned with the correct vowel sound than with the letter that is used to represent that sound in the spelling of the word. In fact, according to the Merriam-Webster Dictionary the English language actually has over 30 different vowel sounds which are represented by those 6 letters above. This is why English dictionaries have pronunciation keys with different symbols for the different vowel sounds such as: ‘ä’, ‘â’, ‘æ’, ‘ī’ and ‘ø’. Since we are much more interested in vowel sound than what letters are used to spell it, your voice teacher will usually say the vowel sound specifically, such as ‘ee’ rather than the letter. In fact, the vowel sound ‘ee’ may be the letter ‘e’ or the letter ‘i’ or even a combination of letters such as ‘ea’ or ‘ee’ or ‘ie’ all depending on what word the ‘ee’ sound is in. It is important not to confuse the vowel sound with the letter, both when listening to the teacher’s instructions and when asking or answering questions to/from the teacher. If it helps, simply say ‘ee-sound’ or ‘ah-sound’ to eliminate any confusion about the letter versus the sound. All vowels are produced by the lips and/or the tongue which form a shape and your voice which makes the sound (*phonates*). The lips and tongue must stay in position during the time of the vowel and you can sustain the vowel as long as you want – providing you do not move the lips or tongue!

Fill in the blanks:

1. In _____ and in _____, we are much more concerned with the correct vowel _____ than with the _____ that is used to represent that sound in the _____ of the word.
2. In fact, the English language actually has over _____ different vowel _____ which are represented by only _____ letters.
3. English dictionaries have _____ keys that use different _____ for the different vowel sounds such as: _____, _____, _____, _____, and _____.
4. In singing lessons your teacher will always refer to the actual vowel _____ rather than the letters used to _____ that sound, and you should get in the habit of doing the same to avoid _____.
5. All vowels are produced by the _____ and/or the _____ which form a _____ and the _____ which makes the sound (phonates). They must stay in the same _____ for the duration of the vowel sound.

Consonants

A simple definition of a consonant is a *sound in a language that is not a vowel*. However, this is not sufficient for a reasonable understanding of phonetics or singing diction. Instead, it is important to understand that consonants are sounds produced by the *contact between two parts of the mouth*. The parts of the mouth which form consonants are the upper lip, lower lip, teeth (always the upper teeth), tongue, *alveolar ridge* or frontal palate (gums just above the teeth), *hard palate* (curved roof of the mouth), or *velum* (soft palate/back of the mouth). The hard palate is used only for a few certain sounds, for all other sounds where the tongue touches the palate, it touches the alveolar ridge or velum. Every possible consonant in every language requires that two mouth parts come together. In some cases they touch quickly for a type of exploded sound such as 'p' (two lips) or 't' (tongue and alveolar ridge), or sometimes they remain together for a continuous sound such as 's' (tongue is close to alveolar ridge while air hisses out), or 'm' (humming with both lips remain closed). To refer back to our original definition that consonants are not vowels, we can further point out that vowels do not involve any mouth parts coming together. In fact, vowels are created by the position of the tongue within the mouth cavity and can be made continuously providing the tongue does not move. If you say 'ee' you can keep saying 'ee' until you run out of breath, providing you do not move your tongue or any other mouth parts out of the position required to make the sound 'ee'.

Indicate the two mouth parts that are used to form each of the consonants below:
(Hint: Say each sound aloud to see which mouth parts you use).

[Parts: upper lip, lower lip, teeth, tongue, alveolar ridge, hard palate, or velum]

1. 'B' _____
2. 'L' _____
3. 'Z' _____
4. 'G' _____
5. 'N' _____
6. 'F' _____
7. 'TH' _____
8. 'D' _____
9. 'CH' _____
10. 'V' _____

Why Do We Sing Words?

The human voice is a musical instrument, just as a piano, violin, flute or electric keyboard is. Like the flute, the human voice can sing only one note at a time. The piano, organ and electric keyboard can produce *chords*, which are several notes played at the same time. The violin and other stringed instruments can produce *double stops*, which are *harmonic intervals* (two notes at a time). The human voice is limited to one note at a time, but it has one capability that no other instrument has: **the human voice can sing words**. Singing is the oldest form of music making, and in fact people invented instruments primarily to imitate the human voice. But even today's most modern electronic instruments cannot match the voice for its ability to express language. The singer has the ability to express very complex meanings through language, and it is the responsibility of the singer to communicate the meaning of the language through the music. The melody must communicate the emotion or action that the words do: anger, fright, love, excitement, motion, fatigue, etc. The human voice has all the capabilities of other instruments to sing scales, melodies, technically difficult feats – but always with the added aspect of language. Because of this extra dimension, it is necessary for the singer to master diction techniques that ensure that the other technical demands placed on the voice do not obliterate the language. How consonants are executed, how vowels are shaped, and how vowels are modified according to vocal range are all part of vocal diction technique. If the listener cannot understand the words, the singer may as well be singing 'la la la' – and if that is the case, the singer can easily be replaced by an electronic instrument.

Fill in the blanks:

1. The ability to sing _____ distinguishes the _____ from all other kinds of musical instruments.
2. Instruments such as the _____ or _____ can play _____, which means several notes at one time, and string instruments can play _____, which means _____ note(s) at a time, but the voice can sing only _____ note(s) at a time.
3. If the listener cannot understand the _____ of a song, the singer may as well be singing just _____.
4. A singer must communicate _____ or _____ in two ways: through the _____ and the meaning of the _____, and they must match each other.
5. How _____ are executed, how _____ are shaped, and how _____ are modified through the range of the voice are all part of vocal _____.

Review Quiz 1

Circle the word in Column 2 that has the same vowel or consonant *sound* as is underlined in the word in Column 1. (HINT: Say all the words aloud):


COLUMN 1	COLUMN 2		
1. <u>S</u> URE	SHOE	USE	SING
2. <u>TW</u> O	PULL	TON	LOSE
3. <u>TH</u> IN	TIN	THYME	THUMB
4. <u>BO</u> SS	BOAST	AUSTIN	BASS
5. <u>DEE</u> P	DEER	POKE	PHILLY
6. <u>T</u> O	GLUE	GO	TEA
7. <u>MA</u> N	SANG	NOISE	MAD
8. <u>CLIM</u> B	CLUB	MUD	FINE
9. <u>CH</u> IN	FETCH	SIN	LOCH
10. <u>LESS</u> ON	PLEASURE	SNOW	PRESSURE
11. <u>PL</u> EASE	ZOO	PLEASURE	PEACE
12. <u>FE</u> W	USE	BLEW	CLUE
13. <u>PL</u> AN	AFTER	FLAME	AGO
14. <u>M</u> E	GEM	MET	TANGERINE
15. <u>M</u> Y	MAY	SIGH	BOY
16. <u>FLIN</u> G	BLINK	FLAG	BANG
17. <u>FL</u> OW	COW	GO	FLOG
18. <u>BOU</u> GH	COW	TOUGH	BLOW
19. <u>THROU</u> GH	TWO	THOUGH	THROW
20. <u>M</u> ET	MEET	LEDGE	MEAT

Singing on the Vowel

As we have mentioned before, we usually sing words much more slowly than we would say them in natural speech. In fact, we often must sustain certain words for a very long time and when we do it is actually the vowel of the word we sustain for that time. The length of time we hold the vowel is determined by the rhythm of the music. If the word is on a half-note, then the vowel will be two beats. If the word is on a whole-note then the vowel will be four beats. The longer the note, the longer we must sustain the vowel of the word. If you sing the word 'me' on a whole note, then you will hold the 'ee' vowel for four beats. In fact, the 'm' consonant should be sung slightly before the beat so that the 'ee' vowel actually begins on the first beat of the note, and the vowel sound should end on the beat following the note (that is, the 5th beat if it is a whole note).

For each exercise, clap a steady beat and say the words, then clap and sing the words:

1. Make sure the vowel begins on the beat and is sustained until the rest.
2. The vowel sound should actually stop when you clap on the rest.
3. Breathe on the rest each time at the same time as you stop the sound.
4. Be sure to repeat each verse right away, without stopping.

(1) 

1. ME	TREE	THREE	PLEA
2. DO	FEW	CLUE	SCREW
3. TOE	GROW	KNOW	BLOW
4. SAY	DAY	GRAY	STRAY
5. LAW	RAW	CLAW	STRAW

(2) 

(3) 

(4) 

Frontal Versus Back Vowels

For the purposes of spelling and pronunciation rules, most languages treat *frontal vowels* differently from *back vowels*. The reason is simply because of where the tongue is positioned when forming these vowels, and how the tongue must move from a consonant before the vowel into the position needed to make the vowel or how the tongue must move from the vowel position to form the consonant. Just as the term implies, the frontal vowels are formed with the tongue in a forward position and they are the letters 'i' and 'e'. The back vowels are formed with the tongue more retracted and they are 'o' and 'u'. In singing, the letter 'a' as in 'father' is considered a central vowel, but many languages do not make this distinction especially for English spelling, where 'a' is considered a back vowel. It is important to note that the sound 'ay' as in 'day' or 'may' is a frontal vowel and 'i' as 'time' and 'might' is a back vowel. Both these issues will be discussed in greater length at a later time. English and many other languages have different pronunciations for the letters 'c' and 'g' based on whether these letters appear before a frontal or back vowel. In English the letter 'c' sounds like 's' as in 'receive', and the letter 'g' sounds like 'j' as in 'gem' when they appear before the frontal vowels 'i' and 'e'. As a general term we say that these letters are 'soft' in front of 'i' and 'e'. When they appear before the back vowels, they are said to be 'hard' as in 'c' sounds like 'k' as in 'cat' and 'g' is a hard 'g' as in 'go'. English does have some exceptions to these rules because our language is a mixture of words with Germanic, French, Greek and Latin heritage. Therefore, words like 'get' and 'gill' have hard sounds and we simply ignore the general rule and pronounce these words correctly as we know they should be pronounced. In addition, sometimes instead of the letter changing sounds, the spelling of the word changes to match the new sound. In the Germanic origin words 'bring', 'brang', 'brought', the spelling of the last word is changed because the sound 'ng' changes to the silent 'gh' after the letter 'o'. In this example, the letters 'gh' were at one time pronounced in Old English and sounded like 'ch' in 'loch', and the sound of 'a' in 'brang' is not fully a back vowel like a pure 'a' as in 'father' is.

FRONT		BACK	
CLOSED	OPEN	CLOSED	OPEN
feet, peal	fit, pill	phone, foe	fount, fought
mate, tale	met, tell	pool, shoed	pull, should
		calm, fawn	come, fun

In the list of words below, circle the ones that have a frontal vowel and draw a box around those with a back vowel. Go by the actual vowel sound and not the spelling, and ignore silent vowels such as final 'e':

- | | | |
|---------|---------|----------|
| 1. CLAW | 5. FIN | 9. SAY |
| 2. COOL | 6. GET | 10. TAKE |
| 3. DONE | 7. GO | 11. TOLL |
| 4. FEET | 8. MESS | 12. WOOD |

Singing Front and Back Vowels

In order to sing vowels correctly we must fully understand how they are produced. During normal speech our mouth parts (tongue, lips and jaw) move quickly from sound to sound and we do not have to consider how they move. We may put extra effort into speaking clearly, or mumble when we are lazy, but that is about as much as we think about our speech. Since singing requires prolonging and exaggerating many sounds we must be much more deliberate how we sing them. If a vowel is sustained, we must not alter it by moving the tongue or lips (especially in anticipation of forming the upcoming consonant). Likewise, we must not let them accidentally move out of position during the vowel (which will distort the sound). The exercises on this page will help you think about how the vowels are formed while singing them. The frontal vowels 'ee' and 'ay' are formed by shaping the tongue with the lips staying in a neutral 'O' position. The back vowels 'oh' and 'oo' are formed by the lips with the tongue staying in the down (neutral) position. The vowel 'ah' is central, meaning that the tongue is down and the lips are in a neutral 'O' position.

1. Each verse in this exercise compares two different vowel sounds.
2. Practice each one carefully, paying attention to how the tongue and lips move.
3. Do not move the tongue or lips if they are NOT SUPPOSED TO MOVE.
4. For this exercise, do not let the jaw should move when changing the vowel sound. (Place your hands on your face if you have a problem with jaw movement.)
5. Make sure the transition between vowel is smooth – NO GAPS or BREATHS.
6. The following descriptions will explain what should be happening:
 - a) Verse 1: 'EE' and 'AH' – Only the tongue moves, up for 'ee' and down for 'ah'.
 - b) Verse 2: 'EE' and 'AY' – Only the tongue moves, up for 'ee' and down for 'ay', but not as much as for 'ah'.
 - c) Verse 3: 'AH' and 'OH' – The tongue is down for both, only the lips move to shape the vowels, tighter for 'oh', more open for 'ah'.
 - d) Verse 4: 'OH' and 'OO' – The tongue is down for both, only the lips move to shape the vowels, tighter for 'oo', more open for 'oh', both are tighter than for 'ah'.



1.	EE	AH	EE	AH	EE	AH	EE	AH	EE
2.	EE	AY	EE	AY	EE	AY	EE	AY	EE
3.	AH	OH	AH	OH	AH	OH	AH	OH	AH
4.	OH	OO	OH	OO	OH	OO	OH	OO	OH

Two Consonants – One Sound

In English there are many consonant sounds which are not represented by single letters, but rather by consonant combinations (usually two letters). Most languages have this feature, though most of them not quite as complicated as English. This is a result of the fact that most European languages use the Roman (Latin) alphabet, which originally represented only the sounds found in Latin. Since many languages have sounds not found in Latin, it became necessary to come up with ways to spell those sounds using the letters available. Some languages have added special letters or symbols, such as the German 'ß' (which is a sharp 's' sound), the French 'ç' (the hook makes the 'c' always an 's' sound) or the Spanish 'ñ' (which is the 'ny' sound as is found in the English word 'onion'). When learning how to pronounce words in other languages it will become necessary to understand these special symbols, but in English we do not use any symbols and all special sounds are represented by combinations of the regular Roman alphabet letters. The primary consonant combinations in English that produce one sound are 'ch', 'sh', 'th', 'gh', 'ph', 'ng', 'nk', and 'wh'. All other combinations of consonants are either *consonant clusters* where both sounds are heard (such as 'gl', 'br', 'st', etc.), are double consonants that produce one sound (such as 'ff' in 'bluff' or 'gg' in 'toggle'), or are combinations where one consonant is silent (such as 'g' in 'gnome' or 'p' and 'h' in 'psychology'). It is important to give some explanation to the combinations 'nk' and 'ng'. At first glance it will seem that there are two consonant sounds, but if you say them carefully you will notice that the 'n' sound is not really the regular 'n'. Instead of being the tip of the tongue at the alveolar ridge, the 'n' in both 'nk' and 'ng' is made with the back of the tongue on the velum (soft palate - near where the 'k' and 'g' are made). Hence linguistically these are considered special consonant sounds, not consonant clusters with 'n'.

In each of the following words, underline the letter combinations which form a single consonant sound (Warning: some words may not have any such combinations!):

- | | | |
|--------------|----------------|-------------|
| 1. BLINK | 13. LINGER | 25. STRING |
| 2. BLUFF | 14. LINGERIE | 26. THISTLE |
| 3. BOGGLE | 15. MINGLE | 27. THRONG |
| 4. CHARMING | 16. PASTURE | 28. THROUGH |
| 5. COUGH | 17. PHEASANT | 29. THUMP |
| 6. CRESCENT | 18. PHLEGM | 30. TOUGH |
| 7. CRUMBLE | 19. PITTSBURGH | 31. TRUFFLE |
| 8. FINGER | 20. PLATFORM | 32. TWINKLE |
| 9. FLOW | 21. PLOUGH | 33. WHAT |
| 10. FRESH | 22. PSYCHO | 34. WHETHER |
| 11. FUTURE | 23. SHUFFLE | 35. WHISTLE |
| 12. LAUGHTER | 24. STRANGER | 36. WRESTLE |

One Letter – Different Sounds

English has many letters which represent more than one sound. We have already discussed consonants ‘c’, and ‘s’, but ‘j’, ‘g’, also ‘t’ have a variety of sounds depending on their use. The vowels have just as many variations and can be equally confusing. This is why learning to spell English is so difficult and requires many years in our education system. Most other languages have a set of spelling rules and tend to be very regular in their application.

A. Match the sound given in Column 1 to the sound in each word of Column 2 by underlining the letters that represent that sound:

COLUMN 1	COLUMN 2		
1. ‘S’ as in ‘song’	SPECIALS	PLACES	CRESCENTS
2. ‘Z’ as in ‘zoo’	CRUISES	ZEALOUS	PLEASURES
3. ‘CH’ as in ‘chin’	FUTURES	LUNCHES	CHOOSY
4. ‘J’ as in ‘jump’	GEMS	JURASSIC	JUDGES
5. ‘F’ as in ‘fun’	HALVED	COUGHS	PHLEGM
6. ‘SH’ as in ‘show’	SPECIALS	PRESSURES	TRADITIONS
7. ‘S’ as in ‘measure’	TREASURES	DU JOUR	JACQUES
8. ‘TH’ as in ‘thee’	THESE	OTHER	BOTHER
9. ‘TH’ as in ‘thin’	WITH	BOTH	THOUGHT
10. ‘T’ as in ‘top’	BAKED	TALKED	FITTED

B. Song for singing single consonant sounds spelled by double letters.

1. Sing this song using solfeggio syllables.
2. Then clap while saying the words rhythmically.
3. Then clap and sing the song with words.

Cruises

1. Cruises take us to special places
 2. Isles of treasure and ports of pleasure

Aspiration

All phonetic sounds which are produced without phonation are produced by *aspiration*. This means that air is forced out of the mouth without engaging the voice. If you speak in a whisper, you are speaking totally in aspiration without any phonation. It is often difficult to understand words in a whisper because the vowels are not clear and the consonants which require phonation do not sound right. We understand whispered speech because the speaker will exaggerate the sounds by making aspirated sounds more explosive, and making the sounds that should be phonated deliberately less explosive and somewhat prolonged. After this, we make guesses as to what the words are based on their context within the text being whispered. However, in normal speech vowels are always phonated, and only certain consonants are aspirated. The most obviously aspirated consonant is 's'. You can make a long sustained 'ssssss' sound by simply hissing out the air until your lungs run out. You never have to engage your voice to say the letter 's'. The same is true for 't', 'p', 'k', 'ch', 'sh', and 'f'. A special aspirated consonant 'h' is actually a puff of air without moving any of your mouth parts. It is possible to make a harsher 'h' sound by raising the tongue, but in reality 'h' is produced by blowing air through an open mouth cavity and a partially closed voice box. (Issues of vocal fold mechanics will be addressed later). Since the letter 'h' does not involve moving mouth parts, is not a real consonant but rather a special vowel aspiration, which probably explains why 'h' is so often silent in many languages, even English (e.g. 'honor' and 'hour').

A. Say the following pairs of words in a whisper. Notice how you try to make the phonated consonants firmer/longer and the aspirated consonants sharper/more explosive:

- | | |
|--------------------|-----------------------|
| 1. BLADE / PLAYED | 8. ROD / WROUGHT |
| 2. BOB / POP | 9. SHOVEL / SHUFFLE |
| 3. BROAD / BROUGHT | 10. SING / SINK |
| 4. DO / TO | 11. THESE / THESIS |
| 5. DRY / TRY | 12. VILE / FILE |
| 6. LIVED / LIFT | 13. WEATHER / WHETHER |
| 7. POD / POT | 14. ZING / SING |

B. Underline the aspirated (not phonated) consonants in the following words:

- | | | | |
|-------------|----------------|--------------|-------------|
| 1. BATH | 7. FUTURE | 13. PLATFORM | 19. THRONG |
| 2. BLUFF | 8. LAUGHTER | 14. PSYCHO | 20. THUMP |
| 3. BLINK | 9. LINGER | 15. STRONG | 21. TOUGH |
| 4. CHARMING | 10. MINGLES | 16. THINK | 22. TRUFFLE |
| 5. COUGH | 11. PHLEGM | 17. THIS | 23. TWINKLE |
| 6. FRESH | 12. PITTSBURGH | 18. THISTLE | 24. WRESTLE |

Voiced Versus Unvoiced

In linguistics the word *voiced* means phonated, and *unvoiced* means aspirated. These words are primarily used to describe consonants, since vowels are never unvoiced. Since the word aspirated can also be used to describe such affectations as whispering and partial whispering, for purposes of linguistics and vocal diction, the words *voiced* and *unvoiced* are far more meaningful than the words *phonated* and *aspirated* when describing the different types of consonants. As a rule, almost every consonant sound can be either voiced or unvoiced. This is because the difference between voiced and unvoiced consonants is simply whether you engage your voice (phonate) or do not engage your voice (aspirate) to produce them. The placement of the two mouth parts will be the same in either case. Therefore, the letter 'z' is the voiced equivalent of the unvoiced 's' consonant, and all the consonants can be paired in this manner: 'b'/'p', 'g'/'k', 'v'/'f' and 'd'/'t'. Because of the English need to use double consonants to spell some sounds, there are several more pairs of sounds available: 'j'/'ch', 'th'/'dh', 'ng'/'nk', and 'zh'/'sh'. The 'th' is actually both voiced and unvoiced, but sometimes linguists spell the voiced version as 'dh'. The last one is not apparent because 'zh' is not really an English letter combination, but the sound can be found in certain English words: 'measure' and 'pleasure'. Likewise, the letters 'th' actually can be both voiced (as in 'thee' and 'this') or unvoiced (as in 'thin' or 'think'), and the speaker simply must know which way to pronounce it based on the word. Finally, there are several voiced consonants which do not have unvoiced equivalents, because they are sustained sounds (continuants) that require phonation to be heard. They are 'm', 'n', 'r', and 'l'. It is impossible to produce these sounds without phonation, except that the special 'ř' in the Czech language is actually a type of unvoiced rolled 'r'.

For each pair of words, one word has a voiced consonant that matches an unvoiced consonant in the other word because it is produced the same way (using the same two mouth parts). Match these pairs of voiced and unvoiced consonants by drawing a box around the voiced consonant, and a circle around its corresponding unvoiced consonant in the other word. Either word may have the voice consonant:

- | | | | |
|-------------|--------|-------------|---------|
| 1. BLISS | TOP | 11. GROW | ROCK |
| 2. BLUSH | SHIP | 12. LIFT | LIVER |
| 3. BOG | COUGH | 13. MAKE | GONE |
| 4. CREASE | LOSER | 14. NASTY | ZOOM |
| 5. CRINGE | MUCH | 15. PHLEGM | NEVER |
| 6. FLOG | LOVE | 16. RING | BANK |
| 7. FUTURE | JUMP | 17. STRING | DAINTY |
| 8. GAME | MUCK | 18. TOUGH | DASH |
| 9. GLOVE | CUP | 19. TRASH | MEASURE |
| 10. GRIMACE | CHOOSE | 20. TRUFFLE | NOVEL |

Changing to Voiced or Unvoiced

In English and many other languages consonants sometimes change from voiced to unvoiced, or vice versa based on certain phonetic conditions. The letters (pairs) which do this the most are 'z'/'s', 'b'/'p', 'g'/'k' and 'd'/'t'. The reason for such consonant sound changes has to do with the placement of voiced and unvoiced consonants either between vowels or next to another consonant of the opposite type. In the latter case, it is sometimes simply easier to change one to match the other. Examples: 'baked' and 'begs'. Vowels are always phonated, so in certain cases when an unvoiced consonant is sandwiched between vowels it is simply easier to phonate the consonant (change it from an aspirated consonant) instead of stopping the voice for the one sound. For example, in the word 'user' the letter 's' becomes voiced into a 'z' sound because it is sandwiched between vowels. The letter 's' is also voiced in hundreds of words where the final 'e' is silent because at one time the 'e' was not silent. Examples are: 'use', 'lose', 'chose', 'rose', etc. This does not mean that the letter 's' is always voiced between two vowels, as English has numerous examples that are exceptions. In fact, the word 'use' can be pronounced with a voiced 's' ('z' sound) or unvoiced depending on whether it is a noun (unvoiced 's') or verb (voiced 's'). But for the most part if the letter 's' is sandwiched between two vowels it will become voiced to a 'z' sound, and in cases where this is not true we actually spell the word with 'ss' to make it clear. Examples: 'lesson', 'pressed', 'messy', etc. Interestingly, the spelling rule works in quite the opposite way for the letter 't' as the word 'better' actually sounds more like 'bedder', and 'butter' sounds like 'budder'. The final 's' is the more prolific example, as it can be either 's' or 'z' depending on the consonant before it. In the words 'cakes', 'pits', and 'loops' the final 's' is a true unvoiced 's' sound because the consonant before it is unvoiced. In the words 'begs', 'loads', and 'mobs' the final 's' becomes 'z' to match the voiced consonant before it. The same effect happens to final 'd' where it becomes a 't' sound after unvoiced consonants. Notice in the words 'baked', and 'dipped' where the 'd' really becomes a 't' sound.

In the following list, circle all the letters in each word that change from their normal sound to the opposite voiced or unvoiced sound:

- | | | |
|------------|-------------|-------------|
| 1. BAGS | 12. MISSING | 23. RAZOR |
| 2. BATTER | 13. MUTTER | 24. RISEN |
| 3. BOSSED | 14. NOSEY | 25. RUBBED |
| 4. COMES | 15. PASSES | 26. SINGS |
| 5. CREWS | 16. PAST | 27. SONG |
| 6. CROSS | 17. PINNED | 28. SUITS |
| 7. GAUZE | 18. PLEASED | 29. TIMED |
| 8. GASSED | 19. POSE | 30. TRACE |
| 9. LAUGHED | 20. PRICKED | 31. TZE-TZE |
| 10. LOSER | 21. RACER | 32. USES |
| 11. MAKES | 22. RAKED | 33. ZOO |

Hidden 'Ch', 'Sh' & 'Zh' Sounds

In English the 'ch' sound is not always spelled 'ch' but can be represented by the letter 't' as in 'furniture'. Likewise, the 'sh' sound is not always spelled 'sh', but can be 's', 'ss', 'ch', or 't'. We have become so used to these anomalies we no longer think about it, but these simple linguistic oddities make spelling or pronouncing unfamiliar words in English very difficult. In fact, sometimes the 'sh' sound then becomes the voiced 'zh' sound (as in 'measure') because of the same phonetics rules discussed previously regarding why the 's' sometimes becomes a 'z'.

A. In the following list underline the letters that are pronounced as 'SH' and not how they would normally be pronounced. Some words will not have a hidden 'SH':

- | | | |
|---------------|--------------|----------------|
| 1. CASH | 7. INSURE | 13. POSITION |
| 2. CHAMPAGNE | 8. MANSION | 14. PRESSURE |
| 3. CONSCIENCE | 9. MISSION | 15. RICOCHET |
| 4. CROCHET | 10. OCCASION | 16. SPATIAL |
| 5. CUSHION | 11. PENSION | 17. SURE |
| 6. FASHION | 12. PLEASURE | 18. TRANSITION |

B. In the following list circle the words that have a hidden 'ZH'. Some words will not have a hidden 'ZH':

- | | | |
|-------------|--------------|-----------------|
| 1. ASSURED | 6. EXPLOSION | 11. NOSEY |
| 2. AZURE | 7. LECTURE | 12. POSTURE |
| 3. BLESSED | 8. LEISURE | 13. RECIPE |
| 4. CLOSURE | 9. MOISTURE | 14. TEMPERATURE |
| 5. CRESCENT | 10. NESTLE | 15. TREASURE |


C. In the following list circle the words that have a hidden 'CH'. Some words will not have a hidden 'CH':

- | | | |
|--------------|-------------|-----------------|
| 1. ACTION | 5. MIXTURE | 9. PICTURE |
| 2. CHARACTER | 6. MOISTURE | 10. RANCH |
| 3. FRACTURE | 7. NATION | 11. ROSTER |
| 4. FRICTION | 8. PATIENCE | 12. TEMPERATURE |


Final Plosives

As mentioned before, when *stopped plosives* are followed by a vowel the singer will usually produce the full sound correctly and the listener will hear the correct sound. However, if the plosive is followed by another consonant, a rest or a breath it is very possible that the singer will ‘swallow’ the consonant by failing to give it a proper release. Furthermore, since the singing voice produces a high volume of sound needed to carry across the stage and into an audience, it is even more important that the singer’s consonants be produced with the same energy as the phonated vowels. Otherwise the listener will only hear an endless stream of vowel sounds and the consonants will seem to have disappeared. In other words, the listener will not understand a word you are singing. Since every plosive begins by closing the flow of air, the only way to ensure that the consonant is projected in singing with the same energy as the vowel before and after it is to make sure that the release is just as energetic as the vowel. For voiced consonants we do this with *subvocalization* and with unvoiced consonants we use *aspiration*. After every voiced consonant that is not followed by a vowel, there must be a subvocalized ‘uh’ [ə] (neutral vowel) sound. The word subvocalized describes the effect precisely because the vowel is neutral and the sound is brief. For example, the word ‘food’ sung at the end of a musical phrase will actually sound like ‘foo-duh’, and if the word ‘food’ is sung in the middle of a phrase before another word beginning with a consonant, such as ‘food fight’, it will sound more like ‘foo-duh fight’. For words that end in unvoiced consonants, the release must be aspirated with a sharp puff of air [h]. Therefore, ‘foot’ will sound like ‘foo-tuh’ where ‘tuh’ is a ‘t’ exploding sharply with a puff of air. We still sustain the vowel as long as possible, delaying the consonant to the very end but we must add an extra sound for the release of the consonant so that it is not swallowed up. Of course, this important aspect of diction must be executed tastefully in accordance with the character of the song. A lullaby will have much less energetically exploded stopped consonants and a dramatic song expressing anger will have very strongly exploded ones.

Clap and say the following words in rhythm, then clap and sing them. Be sure to place the final plosive on the rest with a subvocalized neutral ‘uh’ for voiced plosives, or a sharply aspirated puff of air for unvoiced plosives. Breathe on each rest, right after the plosive.

(1) 

1. FIB	BABE	CRAB	SOB	STROBE	RUB	TUBE
2. SEED	FADE	BAD	ROD	TOAD	CUB	CRUDE
3. LEAGUE	BEG	TAG	DOG	ROGUE	BUG	MOOG
4. SEEP	TAPE	FLAP	DROP	POPE	PUP	STOOP
5. FEET	LATE	SAT	POP	TOTE	MUTT	BOOT
6. PEEK	TAKE	RACK	KNOCK	WOKE	STRUCK	LOOK

(2) 

Affricatives

Several consonant sounds are actually a combination of a stop plosive and a fricative. The consonant begins with a plosive, ends with a fricative and they are called *affricatives*. Both sounds must be formed by the same mouth parts or else they are actually separate consonants. These consonants are not continuants because the initial stop plosive forces the velum to close and therefore the fricative portion (release) becomes plosive as well. These sounds are represented in English as ‘ch’ and ‘j’. Technically the ‘ch’ sound begins with the stop part of plosive ‘t’ and release with with a ‘sh’. Likewise, the ‘j’ sound begins with the stopped ‘d’ and releases with a ‘zh’ (technically the voiced equivalent to the ‘ch’). Therefore, ‘ch’ is the same as ‘tsh’ and ‘j’ is the same as ‘dzh’. There are other affricatives, but they are spelled with more obvious letter combinations in English. Notice the ‘dz’ sound in the following words: ‘loads’, ‘fades’, and ‘moods’ and notice the ‘ts’ sound in ‘hots’, ‘meets’, and ‘toots’. The ‘ts’ sound is represented in both Italian and German by the letter ‘z’ as in ‘pizza’ or ‘Mozart’. Just to help you recognize the difference between the affricative ‘dz’ and the separate consonants ‘d’ and ‘z’, compare the following: ‘loads own’ and ‘load zone’. In the first one, you combine the ‘ds’ together to make ‘dz’, in the second one you complete the ‘d’ before saying ‘z’ so that the words are distinguishable. You might also notice the small glottal attack given to the ‘o’ vowel in ‘own’ (a phonetics issue to be addressed later). The same kind of comparison can be found in the following: ‘why choose?’ vs. ‘white shoes?’.

The underlined letters in each word represent an affricative sound. Specify the stop plosive and fricative component of each sound:

SOUND	STOP PLOSIVE	FRICATIVE
1. <u>CH</u> IN	t	Sh
2. FURNIT <u>URE</u>		
3. <u>G</u> YM		
4. <u>J</u> OY		
5. LE <u>DGE</u>		
6. LUN <u>CH</u>		
7. MIT <u>T</u> S		
8. ROA <u>D</u> S		
9. WA <u>T</u> CH		
10. <u>TZ</u> E-TZE		

The International Phonetic Alphabet (IPA)

Now that we have covered almost all the basic concepts of phonetics, it is time to introduce the writing system that helps us apply those concepts to diction and singing, whether in English or any language. That system is the International Phonetic Alphabet (IPA), which has a symbol for virtually every sound of virtually every language. The IPA symbols are mostly derived from the Roman and Greek alphabets. The most common sounds are easily recognizable to us as the letters we know in English (e.g. b, d, f, g, z, k, l, m, n, p, s, t, v, etc.). However, the more complex vowels and consonants (especially the fricatives and affricatives) have special symbols which we must learn as new. It is important to learn the IPA completely, so that you can apply it regularly to your singing in English and in other languages. All exercises from here on will use the IPA and will expect you to use it in answering questions or doing exercises. As a convention used by many linguists as well as vocal academics, the IPA is usually enclosed in ‘[]’ brackets to distinguish it from regular spelling. For example: [kek] is the IPA spelling of the word ‘cake’.


The IPA Pure Vowels

IPA	English word examples	Add your own examples
[ɑ]	f <u>a</u> ther, w <u>a</u> sh	
[a]	tr <u>a</u> sh, p <u>a</u> d	
[æ]	l <u>a</u> mb, c <u>a</u> n, s <u>a</u> nd,	
[e]	ch <u>a</u> os, l <u>a</u> te, fian <u>ce</u> ee	
[ɛ]	b <u>e</u> d, f <u>e</u> ll, p <u>e</u> n	
[ʌ]	u <u>u</u> nder, fr <u>o</u> m, d <u>o</u> es	
[ə]	u <u>a</u> go, u <u>u</u> pon	
[i]	m <u>e</u> et, latr <u>i</u> ne, tanger <u>i</u> ne	
[ɪ]	s <u>i</u> t, p <u>i</u> t, th <u>i</u> n	
[o]	g <u>o</u> , t <u>o</u> ne	
[ɔ]	s <u>o</u> ft, t <u>o</u> ll	
[u]	Bl <u>u</u> e, sp <u>o</u> on,	
[ʊ]	p <u>u</u> t, s <u>o</u> t	


Singing IPA Frontal Vowels

The exercises on this page replace the ones on page 11 for practicing the open and closed frontal vowels. It is important to be able to sustain the pure vowel for its full duration. That means there should be absolutely no change in vowel color during the note. A common vowel distortion is a diphthong effect caused by a subvocal 'y' on the open [e] vowel (as in the words 'day', 'hey', 'say', etc.) Another common vowel distortion happens with the tongue moves out of position, which usually happens because it moves to the consonant too soon.

A. [e / ε] and [i / ɪ]. For these vowels, pay special attention to keeping the back of the tongue in the same place for both vowels, and changing from closed to open by lowering the jaw and front of the tongue only slightly. Make sure there is no diphthong or subvocal 'y' on [e] and make sure that in verse 3 the 'm' begins on the second half the value of the note. The consonants are all phonated so there should be no breaks in vocal sound.


(1) 

1. [e ε e ε e ε e ε e ε e ε]
 2. [ze zε ze zε ze zε ze zε ze zε ze zε]
 3. [zem zεm zem zεm zem zεm zem zεm zem zεm zem zεm]


(2) 

1. [i ɪ i ɪ i ɪ i ɪ i ɪ i ɪ]
 2. [zi zɪ zi zɪ zi zɪ zi zɪ zi zɪ zi zɪ]
 3. [zim zɪm zim zɪm zim zɪm zim zɪm zim zɪm zim zɪm]

B. [i / e] and [ɪ / ε]. These exercises include the same vowels and consonants, only the two open vowels are back-to-back and the two closed vowels are back-to-back. This means that the front of the tongue and mouth will be in the same position, only the back of the tongue changes between the vowels.

(3) 

1. [i e i e i e i e i e i e]
 2. [zi ze zi ze zi ze zi ze zi ze zi ze]
 3. [zim zem zim zem zim zem zim zem zim zem zim zem]

(4) 

1. [ɪ ε ɪ ε ɪ ε ɪ ε ɪ ε]
 2. [zɪ zε zɪ zε zɪ zε zɪ zε zɪ zε zɪ zε]
 3. [zɪm zεm zɪm zεm zɪm zεm zɪm zεm zɪm zεm zɪm zεm]

IPA Consonants

As was mentioned before, most of the consonants in IPA look the same as in English (Roman alphabet), at least for the simple nasals and plosives. However, since the fricatives and affricatives have so many different spelling representations in the various languages, the IPA symbols can be quite different from what we might expect. The Cyrillic Alphabet is a very phonetic alphabet, so languages such as Russian or Ukrainian already have a simple one-to-one correspondence between their letters and their sounds. However, the languages written in the Roman alphabet have special letter combinations for certain sounds and for each language it is different. The lessons that follow will help you translate the sounds of English into the IPA. By mastering the powerful tool of the IPA, you will be prepared to learn the diction rules for all the world's languages!

The IPA Consonants

These IPA consonants look the same as in English: [b, d, f, g, h, k, l, m, n, p, s, t, v, w, z]. The chart below gives the other IPA symbols that are not the same.

IPA	English word examples	Add your own examples
[j]	<u>J</u> ugoslavia, <u>y</u> ellow, <u>y</u> es	
[ŋ]	<u>o</u> nion, <u>l</u> asagna	
[ŋ]	<u>s</u> ung, <u>u</u> ncle	
[ɹ]	<u>r</u> ed, <u>r</u> un (American 'r')	
[ʃ]	<u>s</u> hip, <u>w</u> ish	
[θ]	<u>t</u> hin, <u>m</u> oth	
[ð]	<u>t</u> hee, <u>l</u> oath	
[ʒ]	<u>m</u> ea <u>s</u> ure, <u>v</u> ision	
[dʒ]	<u>j</u> udge, <u>r</u> egion	
[gz]	<u>e</u> xert, <u>e</u> xile	
[ks]	<u>a</u> xe, <u>e</u> xtr <u>e</u> me	
[hw]	<u>w</u> hen, <u>w</u> hat	
[kw]	<u>q</u> uick,	
[tʃ]	<u>ch</u> oice, <u>m</u> uch	

IPA Letters [k, s, g, j]

In English we already know that the letter ‘c’ is sometimes ‘k’ and sometimes ‘s’. But there are many other spellings that can be confusing, such as ‘back’ [bæk] and ‘chorus’ [kɔrəs]. When writing in the IPA you never repeat letters (‘ruff’ [rʌf]) and you ignore silent letters (‘cake’ [kek]). This is a problem of English spelling, and not a problem with the IPA. We use the IPA to represent the specific sounds of the language and we do not care how those sounds are correctly spelled in their original language. In Italian, the simple word ‘che’ [ke] sounds exactly like the word with the same meaning in Spanish ‘que’ [ke], but is spelled quite differently. Similarly, the English words ‘to’ [tu], ‘too’ [tu], and ‘two’ [tu] all sound the same and therefore are spelled the same way in IPA. Use this lesson to practice recognizing English words in IPA that might look quite different when spelled correctly. Just remember that in IPA [k] is always a ‘hard k’ as in ‘kick’ and can be used to spell words that have a ‘c’ as in ‘cake’, ‘ch’ as in ‘chaos’ or ‘q’ as in ‘queen’ in English. The letter [s] is always the ‘s’ as in ‘snake’ and never the voiced [z] as in ‘use’. Likewise, the letter [g] is always ‘hard g’ as in ‘go’ and never ‘soft g’ as in ‘gem’. Finally, the letter [j] is always ‘y’ as in ‘yellow’ [jelo] and never ‘j’ as in ‘jello’ [dʒelo].

A. Decipher these English words written in the IPA:

- | | | | |
|------------|-------|---------------|-------|
| 1. [gɛt] | _____ | 16. [klɪk] | _____ |
| 2. [gem] | _____ | 17. [klɪmp] | _____ |
| 3. [get] | _____ | 18. [klæk] | _____ |
| 4. [jɛld] | _____ | 19. [klæps] | _____ |
| 5. [jelo] | _____ | 20. [krɪsməs] | _____ |
| 6. [jɑnz] | _____ | 21. [krɪstəl] | _____ |
| 7. [jɛs] | _____ | 22. [krejola] | _____ |
| 8. [jæk] | _____ | 23. [laks] | _____ |
| 9. [kɒf] | _____ | 24. [ples] | _____ |
| 10. [kæən] | _____ | 25. [rɪsɪv] | _____ |
| 11. [kæst] | _____ | 26. [sɪk] | _____ |
| 12. [keas] | _____ | 27. [sæk] | _____ |
| 13. [kek] | _____ | 28. [sɪk] | _____ |
| 14. [klɪk] | _____ | 29. [skrɪmz] | _____ |
| 15. [klɪk] | _____ | 30. [spɪk] | _____ |

B. Practice Drill: Say each of the above words aloud by reading only the IPA (cover the right column with paper), then check to see if you said them correctly.

Singing English in IPA

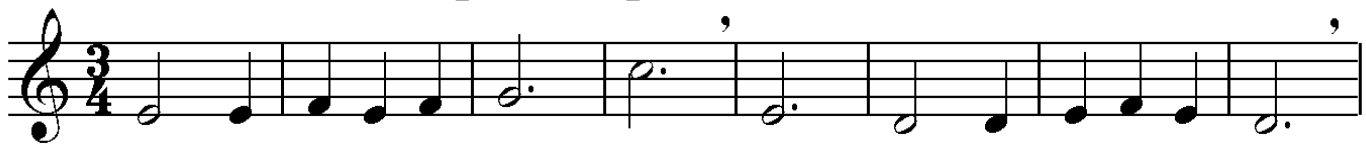
Because of the phonetic accuracy of the International Phonetic Alphabet, it is often useful to re-write English words into IPA so that you sing them correctly. Many vowels change to more neutral forms, and often it is difficult to remember when they are closed or open. Being able to read IPA fluently will help you learn and sing foreign languages, but a very good first step is to be able to read plain English words when written in IPA. Sometimes, they will look similar and sometimes they will look quite different. It is important to reproduce the phonetic sounds exactly, without giving any concern to the actual spelling even though you will probably picture the word once you hear yourself sing/say it.

These exercises practice reading English in IPA. All the words are common English words. Clap and say, then clap and sing these one-syllable words. Make sure that all the vowels and consonants are correct. The word will most likely not look like its normal spelling, so do not guess based on what the IPA letter look like in English. Be sure to place the release on the rest (consonant(s) + breath) and that the initial onset is clean. To help you (make it easier) only one sound changes from word to word. Try to sing the entire exercise (all repeats), without stopping.



1. [mɛt mɛt bɛt bɛl bəl fəl fən fən fən]
2. [rʌn rʌt rut but bum bam mam mʌl]
3. [mɪl dɪl dɪn den ken kek kok pɒk]
4. [pɒz pɪz flɪz flɪt flɒt glɒt glɒd glæd]
5. [bæd bæc bʌk klʌk klʌmp klæmp ræmp ræft]
6. [rʌft tʌft tʌn tɪn spɪn spɪl spɛl tɛl]
7. [tɛnd tɒnd mɒnd mɒst mɪst kɪst kɪld kʌld krald]

big bæɡ ʌv kændi



[tʌk! ə bɪɡbæɡ ʌv kændi, swɪt, trɪts, so tɛs-tɪænd ɡʊd,



ɛn - i mʌn-i wʌz hændi - di it bʌt æz mʌtʃæz it kʊd]

IPA Fricatives [z, s, ʒ, ʃ, v, f, ð, θ]

As we discussed in the previous lesson, the letter [z] is always voiced and the letter [s] is always unvoiced. The same is true for [v] (voiced) and [f] (unvoiced). The other four symbols look unusual because they represent sounds which are always spelled with other letter combinations in English. The letter [ʒ] is the voiced ‘zh’ sound as in the letter ‘s’ of ‘measure’, and the letter [ʃ] is its unvoiced equivalent ‘sh’ as in ‘shoe’. Even though both sounds occur regularly in English, how they are represented in spelling can vary quite widely (‘s’, ‘ss’, ‘t’, ‘ch’, or ‘c’). The other symbols are actually real letters from other alphabets. The voiced [ð] which sounds like ‘th’ in ‘thee’ is actually a letter from old English and is most commonly seen in the phrase ‘ðe Olde Tavern’. (The letter ð is pronounced ‘eth’, with a corresponding voiced ‘th’.) Strangely enough, this unusual character has often been misread as ‘y’ and thus you might have seen ‘Ye Olde Tavern’ instead! The Greek letter ‘theta’ [θ] is the unvoiced ‘th’ as in ‘thin’. For anyone who has studied high school physics and math, some of these symbols should be familiar as Greek letters are used regularly and the [ʃ] looks like the integral sign in Calculus.

A. Decipher these English words written in the IPA:

- | | | | |
|------------|-------|--------------|-------|
| 1. [ʃɛl] | _____ | 15. [ði] | _____ |
| 2. [ʃʌn] | _____ | 16. [ðiz] | _____ |
| 3. [θɪn] | _____ | 17. [ðoz] | _____ |
| 4. [ʃɪp] | _____ | 18. [fʌs] | _____ |
| 5. [θɪsəl] | _____ | 19. [fʌzi] | _____ |
| 6. [ʃep] | _____ | 20. [feʃəl] | _____ |
| 7. [ʃɪp] | _____ | 21. [frɛʃ] | _____ |
| 8. [ʃoz] | _____ | 22. [mɪʃən] | _____ |
| 9. [ʃuz] | _____ | 23. [mɔθ] | _____ |
| 10. [bæθ] | _____ | 24. [mʌsəl] | _____ |
| 11. [beð] | _____ | 25. [pɪstəl] | _____ |
| 12. [boθ] | _____ | 26. [ruʒ] | _____ |
| 13. [ðɪs] | _____ | 27. [vɪʒən] | _____ |
| 14. [ðæn] | _____ | 28. [wɪθ] | _____ |

B. Practice Drill: Say each of the above words aloud by reading only the IPA (cover the right column with paper), then check to see if you said them correctly.

IPA Linguovelar [ŋ] and Linguopalatals [ɲ, ʎ]

The linguovelar sound [ŋ] is found in the consonant combinations ‘nk’ and ‘ng’. Clearly the ‘nk’ is the unvoiced equivalent of the ‘ng’ sound. Some sources use the [ŋ] to represent both, and some sources add a [k] to make the unvoiced sound more distinctive [ŋk]. It is clear that the reason for the [ŋ] symbol is to describe how the tongue actually forms the [n] in the back of the mouth when occurring just before a [g] or [k] instead of the normal place against alveolar ridge. Therefore, it makes sense to provide the following distinctions: we will use [ŋ] to represent the continuant produced by holding the tongue against the velum for the ‘ng’ sound (and not releasing), the [ŋg] for the voiced sound ‘ng’ and [ŋk] for the unvoiced sound ‘nk’. These points of distinction are very useful in vocal training where the sustained [ŋ] is often used in vocalises. The linguopalatal sound [ɲ] is found in English only in certain words, but in some languages this sound is quite prevalent and may even have special symbols or spellings to represent it. In English the [ɲ] is found in ‘onion’ [ʌɲən] or ‘lasagna’ [lɑzɑɲɑ] (the latter of which is really borrowed from Italian). Again, it is a matter of how the tongue changes position to form the [n] sound, and in this case the blade is squashed flat against the hard palate when the [n] comes before the letter [j] (or diphthong [i]) instead of the tip of the tongue flapping against the alveolar ridge. Since the [ɲ] sound is so common in both Spanish and Italian they have made special spellings for them. In Spanish the ‘~’ *tilde* is placed over the ‘n’ to make it ‘ñ’ as in ‘señora’ [seɲora] and ‘mañana’ [maɲana] and in Italian the sound is spelled as ‘gn’ as in ‘lasagna’ [lɑzɑɲɑ] and ‘signore’ [siɲore]. The sound [ʎ] is also rare in English, but can be found in the word ‘million’ [mɪʎən]. Similar to [ɲ], the tongue squashes against the hard palate of the mouth to form [ʎ] when [l] appears before a [j] (or diphthong [i]). This sound is much more common in other languages such as Italian and Russian.

Decipher these English words written in IPA, then practice reading by saying aloud:

- | | | | |
|--------------|-------|--------------|-------|
| 1. [ʌɲən] | _____ | 10. [lɔŋg] | _____ |
| 2. [θæŋks] | _____ | 11. [lɑzɑɲɑ] | _____ |
| 3. [ɔpɪɲənz] | _____ | 12. [pɪŋk] | _____ |
| 4. [θrɔŋgz] | _____ | 13. [rʌŋg] | _____ |
| 5. [ʃrɪŋk] | _____ | 14. [sɪŋgz] | _____ |
| 6. [bæŋgz] | _____ | 15. [strɔŋg] | _____ |
| 7. [bæŋks] | _____ | 16. [tʃʌŋks] | _____ |
| 8. [bɪʎən] | _____ | 17. [tɔŋgz] | _____ |
| 9. [dʒɪŋks] | _____ | 18. [tɛɲər] | _____ |

IPA Diphthongs

As was explained before, *diphthongs* are double vowel sounds which form a single syllable. In order to do this, one vowel cannot retain its full sound, but is shortened in duration and even altered in execution. The shortened or modified vowel is called the *secondary vowel*, and the other is the *primary vowel*. The secondary vowel can be first or second in sequence, often with very different results. In diphthongs involving the sound [i] as an initial secondary vowel, it often becomes the glide [j] ('ia' becomes [ja]). Likewise, the sound [u] often becomes the glide [w] ('uo' become [wo]). Otherwise, diphthongs are spelled in IPA using the symbol ':' after the primary vowel to make it clear how the diphthong is pronounced. Some sources do not use the glides [j] or [w] for diphthongs, reserving them to represent particularly strong uses of the glide such as 'yes' [jɛs] and 'one' [wʌn], and some sources do not use [:] to distinguish the vowels from two pure vowels but instead simply place the two vowels together. When using IPA for your own purposes, and after you have more mastery of phonetics, you can choose these diphthong shortcuts to make transliterating and singing easier. The primary diphthongs in English are [ɑ:ɪ], [ɑ:ɔ], [ɑ:ʊ], [e:ɪ], [ja] or [ɪɑ:], [jo] or [ɪo:], [ju] or [ɪu:], [o:ʊ], [ɔ:ɪ], and [ɔ:ø]. In English diction, the [e:ɪ] diphthong causes the most problems, because singers will pronounce [e] as [e:ɪ] when it should not be, and will pronounce the [e:ɪ] by sustaining [i] instead of [e]. In addition, the diphthong [ju] should be used instead of [u] for many words such as: 'tune' [tjun], and 'new' [nju]. (Notice how the [ju] actually changes the [n] to [ɲ].) All other diphthongs will be sung sustaining the primary vowel and shortening (delaying) the secondary vowel.

The IPA Diphthongs

ɑ:ɪ	l <u>ike</u> , t <u>ime</u>	jo or io:	<u>yo-yo</u> , <u>yogurt</u>
ɑ:ɔ	h <u>ouse</u> , t <u>own</u>	ju or iu:	<u>music</u> , <u>few</u>
ɑ:ʊ	n <u>ow</u> , c <u>ow</u>	o:ʊ	k <u>now</u> , b <u>elow</u>
e:ɪ	d <u>ay</u> , w <u>eight</u>	ɔ:ɪ	t <u>oy</u> , b <u>oy</u>
ja or ia:	y <u>awn</u> , b <u>eyond</u>	ɔ:ø	v <u>oice</u> , ch <u>oice</u>

Decipher these English words written in IPA, then practice reading by saying aloud:

- | | | | |
|--------------|-------|----------------|-------|
| 1. [ɹɑ:ɪm] | _____ | 9. [jo-jo] | _____ |
| 2. [ɹɑ:ɪnd] | _____ | 10. [ju] | _____ |
| 3. [ɹɪfju:z] | _____ | 11. [kɹɑ:ɪm] | _____ |
| 4. [ɹnju:z] | _____ | 12. [mɔ:østʃə] | _____ |
| 5. [əɪɑ:ʊd] | _____ | 13. [ple:ɪ] | _____ |
| 6. [de:ɪ] | _____ | 14. [so:ʊ] | _____ |
| 7. [fju] | _____ | 15. [tɔ:ɪ] | _____ |
| 8. [hɑ:os] | _____ | 16. [tɑ:ɪm] | _____ |

IPA Triphthongs

A *triphthong* is a combination of three vowel sounds together with much the same principles as diphthongs. The way composers treat triphthongs can vary widely, due to personal taste, spelling rules and language conventions. Sometimes an entire triphthong must be sung on a single syllable which might be a very fast note. The word ‘our’ [ɑ:uə] or [ɑ:wə] is often treated this way, and the singer must work hard to distinguish this word from ‘are’ [ɑə] which has a totally different meaning and sounds very similar in colloquial speech. Composers will usually set the text based on the spelling, which will make ‘tower’ [tɑ:uə] a two syllable word, even though linguistically it is equivalent to ‘our’ with just an added [t] in front. Therefore, in singing we always split the triphthong into two syllables (the final one being [ə]) when the word is sung on a single note. If the word is meant to be fast, the syllables will be equal. If the word is sustained, the primary vowel will be sustained and the final [ə] delayed. Some words have an alternate pronunciation that uses a triphthong. The word ‘boil’ could be a single syllable diphthong or could be a double syllable triphthong to rhyme with ‘loyal’. How these words are sung is determined by the style of music and how the composer set the text.

The IPA Triphthongs

ɑ:ɪə or ɑ:jə	<u>fire</u> , <u>inspire</u>
ɑ:uə or ɑ:wə	<u>our</u> , <u>tower</u>
ɔ:ɪə or ɔ:jə	<u>royal</u> , <u>loyal</u> , <u>boil</u>

Decipher these English words written in IPA, then practice reading by saying aloud:

- | | | | |
|----------------|-------|--------------|-------|
| 1. [ɑ:uə] | _____ | 8. [lɑ:ɪə] | _____ |
| 2. [bɔ:ɪəl] | _____ | 9. [lɔ:ɪəl] | _____ |
| 3. [fɔ:ɪəl] | _____ | 10. [pɑ:uə] | _____ |
| 4. [flɑ:uə] | _____ | 11. [sɔ:ɪəl] | _____ |
| 5. [kɔ:ɪəl] | _____ | 12. [sɑ:uə] | _____ |
| 6. [kwa:ɪə] | _____ | 13. [ska:uə] | _____ |
| 7. [kwægma:ɪə] | _____ | 14. [tɑ:ɪə] | _____ |

Singing IPA Triphthongs

As mentioned before, if the composer sets a word with a triphthong to two separate notes, all questions and ambiguity is removed. However, if the composer sets the word on a single note, the singer must make a decision how to execute the triphthong. The note must be divided, and how it is divided is determined by the music, the tempo and the length of the note. Sometimes, you will sustain the primary vowel for 2 or more beats and delay the secondary vowels until the last beat, and sometimes you will divide the note in half giving each syllable equal time.

These short musical examples help you practice triphthongs. First you must decide how you will split the vowels rhythmically (if the composer did not set the word on two syllables). Write in the counts, and the IPA letters if necessary for clarification.

1 2

Boil the wat - er. There's a fire in the woods.

3 4

Sit here by the warm fire. Ap-ril show-ers bring May flow-ers.

5

Whata loyal, what a loyal, what a loyal, loyal, loyal, loyal friend.

6

Our love, our love, our love, our _____ love! _____

Review Quiz 14

Match each item in Column A to the item in Column B with the same meaning by writing its number on the line.

COLUMN A	COLUMN B
1. Affricative	___ Continuants where the air goes through the nose
2. Aspirated glides	___ Air escapes past two mouth parts
3. Diacriticals	___ Three vowels sung on one or two syllables
4. Diphthong	___ Closing the glottis completely before a vowel
5. Elide	___ American 'R' sound
6. Eth	___ Rapid repeated flapping motion of lips or tongue
7. Flapped	___ Combination of plosive and fricative
8. Fricative	___ Two sounds sung back-to-back
9. Glides	___ [hw] or [hj]
10. Glottal fricative	___ The letters 'n' or 'l' before [j]
11. Glottal stroke	___ Short neutral vowel
12. Glottis	___ Accents over vowels
13. Linguopalatal	___ Two vowels sung on one syllable
14. Linguovelar	___ The vowels [u] or [i] sounding like [w] or [j]
15. Liquid	___ The hard 'th' in 'thee'
16. Nasal	___ Striking the tongue quickly for [l] or [r]
17. Retroflex	___ [h]
18. Schwa	___ The space between the vocal folds
19. Trill	___ Describes sustaining the [l] sound and not flapping it
20. Triphthong	___ The letter 'n' before [g] or [k]

Reading in IPA 1

Read the following story written in IPA then answer the questions:

mɛɪ jæn æftə fɛd æz hi jæn dɑ:ɒn ðə hɪl. ʃi jɛld hɪz nem ɪpɪtədli,
bʌt hi wʊd nɑt stɑp ænd wʊd nɑt ænsə. hwɛn ðei: bəθ ɹɪft ðə
bɑtəm, ʃi fɑ:ɪnəli ʌndəstʊd hwɑt wɔz so ɪmpɔ:tənt. hɪz dɑg ni:li gət
hɪt bɑ:ɪ ə kɑɪ, bʌt lɪkəli ðə dɑg wɔz nɑt hɪt.

Questions:

1. Who are the two people in the story? _____
2. What are they doing? _____

3. While they are doing this, what is she doing? _____
What is he not doing? _____
4. Why? _____
5. What almost happened? _____

6. Was it bad? Why? _____

Writing in IPA 1

Transliterate the following selection into the IPA using singing diction rules:

When the weather turns cold it is important

for all singers to protect their voices from

the elements. A good scarf and hat must

be worn, and prolonged exposure to the

elements should be avoided.

Final Review 1

List the IPA letters which match the phonetic description. (DO NOT LOOK BACK AT PREVIOUS PAGES IN THE BOOK!)

1. bilabial voiced nasal continuant	
2. linguodental unvoiced fricative	
3. labiodental voiced fricative	
4. linguoalveolar voiced nasal continuant	
5. linguoalveolar voiced plosive	
6. linguovelar voiced plosive	
7. bilabial unvoiced plosive	
8. linguoalveolar unvoiced fricative	
9. linguodental unvoiced fricative	
10. labiodental unvoiced fricative	
11. linguovelar unvoiced plosive	
12. linguoalveolar unvoiced plosive	
13. bilabial voiced plosive	
14. linguoalveolar voiced fricative	
15. linguoalveolar unvoiced affricative	
16. linguoalveolar voiced affricative	

Decipher the following English words written in IPA:

1. [ʔʌ ʔo] _____
2. [ʌjən] _____
3. [ɹɑ:ɪnd] _____
4. [ʃɑ:uə] _____
5. [ɹɪfjuːz] _____
6. [θæŋks] _____
7. [əbʌv] _____
8. [ʃɪp] _____

9. [ŋjuːz] _____
10. [dɑdʒ] _____
11. [fɔ:ɪəl] _____
12. [fʌdʒɪ] _____
13. [hɪd] _____
14. [jɛɪd] _____
15. [kwɑ:ɪə] _____
16. [kwɛstʃən] _____

GLOSSARY

abdomen: the part of the body below the chest and above the pelvis. Physiologically it houses all the internal organs other than the brain, heart, lung and intestine.

abdominal muscles: the muscles in the abdomen. These muscles are used for a wide variety of bodily movements, as well as breathing. In correct breathing for singing, only the abdominal muscles should move, nothing in the chest, shoulders or neck.

Academic Latin: the most classical Latin, as is taught in the Universities. The pronunciation rules have been determined by linguistic deduction and are quite different from either Italianate or Germanic Latin. For many centuries, the universities of Europe conducted all their lectures and examinations in Latin and all official scholarly publications were in Latin. This is why so many government and school mottoes and seals are inscribed in Latin rather than English. Even today, the school song books of many universities still have Latin verses to some of their songs, as a vestige of that tradition. *See Latin, Mass, Roman Catholic Church, Germanic Latin, Vulgate Latin, Academic Latin.*

acceleration: 1) increasing the tempo, moving faster. 2) the process of improving the technique of playing or singing very fast.

accent: to sing or play a specific note or notes louder than the notes before or after them.

accidental: any sharp (♯), flat (♭) or natural (♮) appearing in the music that is not in the key signature. *See key, key signature, tonality, black keys.*

acoustics: the subset of the scientific branch of physics that studies how sound works, including: sound waves, frequency, overtones, resonance, timbre, amplification, echo, modulation, and reverberation.

aeolian: an ancient Greek mode equivalent to the scale A-B-C-D-E-F-G-A, with a whole/half step sequence of whole-half-whole-whole-half-whole-whole and which is the same as our current natural minor scale. Use of the natural minor scale results in a minor v chord, and often reference Gregorian chants or evokes feelings of the Middle Ages. *See mode, Gregorian chant, Medieval.*

affricatives: consonants that begin with a stop plosive but end in a fricative, and the resultant combination sound is plosive. Affricatives can be phonated (voiced) or aspirated (unvoiced) and both letters must be of the same type. Examples: [tʃ], [tʂ], [dʒ], [dʒ].

aggiustamento: *It. for 'adjustment'.* The vocal technique of modifying vowels throughout the extremes of the vocal range to achieve a balance in vowel color and vocal timbre.

allegretto: moderately fast. From *It. allegro* gaily + *-etto* (diminutive, used to mean 'somewhat').

allegro: fast, lively. *It. for gaily.*

alternating thirds: *See broken thirds.*

alto: 1) a woman or section of women in a chorus who have lower voices. 2) the second part of two part, three part and four part choral writing (including children's chorus). 3) a sister instrument with a slightly lower range (usually not more than a 4th) such as: alto clarinet, alto flute, and alto saxophone. *See contralto, chorus, woodwind, soprano, treble.*

alveolar, alveolar ridge: 1) of or involving the ridge on the roof of the mouth behind the teeth; 2) Any sound which requires that the tongue come in contact with the alveolar ridge (lingualalveolar). Examples: [n], [s], [z], [d], [t], [ʃ], or [ʒ].

amateur: 1) non-professional or unpaid performer. From French meaning 'for the love of it'. 2) low quality, lacking in good technique or refinement.

American 'r' [ɹ]: *see retroflex 'r'.*

aperture: 1) any opening. 2) In singing, aperture refers primarily to the opening of the mouth (*buccal aperture*) or the space between the vocal folds (*glottal aperture*).

appoggio breathing: from the Italian word *appoggiare* 'to lean', appoggio comes from the *bel canto* school of singing where it describes the technique of singing on a full reservoir of air. The various schools of singing, and their follower teachers, advocate different techniques for breathing. Some of these techniques do not claim to be appoggio breathing, and some claim to be appoggio breathing, but in fact are not. As a result, many teachers exhibit outright animosity toward other colleague teachers because of disputes regarding what exactly is correct breathing.

approximation: technically this word means 'estimation', but in singing it is used to describe the action of bringing the vocal folds together for phonation. *see vocal fold approximation.*

ascending: 1) moving from one pitch to one that is higher. 2) playing a scale upward. 3) playing a repetitive exercise that sequences upwardly. 4) managing the shift from a lower vocal register to a higher vocal register.

aspirant, aspirated: 1) consonants that are unvoiced. Examples of aspirants are [p], [s], [f], [t], [k], [θ], [ʃ]; 2) involving the use of (unphonated) air to create sound, whispered, gasping or breathy; 3) a singing effect that is a mixture of whisper and phonation used to exhibit fear, surprise, anxiety, anger, excitement or other emotions.

atonal: music that lacks a tonality as defined by modes, keys or alternate tonalities such as whole tone, pentatonic, middle eastern, etc. In atonal music, all the available pitches are treated equally without preference to any subset or grouping, such as harmonies within the scale.

augmented triad: a triad where the interval of the root to the 3rd is a major third and the root to the fifth is an