PHONOLOGY & PHONETICS

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INTEGRATED ENGLISH PRACTICE

CONTENTS

1 INTRODUCTION TO PHONOLOGY

Language is intimately tied to man's thought, feelings, and activity. A language is part of the culture of a people and the chief means by which the members of a society communicate. Language is studied by many branches of learning: linguistics, psychology, anthropology, education, to mention a few.

Linguistics, the science that analyzes, describes, and classifies language, is divided into different branches. One of these is phonology, which studies the sound system of a language.

Since language is an oral process, accurate pronunciation, that is the mastery of the sound system, is a prerequisite to complete mastery of the language. Pronunciation is a dual process, because it involves no only the ability to *recognize* the significant sounds of the language, but also the ability to *produce* these sounds with accuracy.

In addition to the individual sounds, utterances include in intonation, stress, and rhythm.

Intonation is the tune of what we say. More specifically we can say that intonation is a combination of musical tones, of which we pronounce the syllables that make up our speech.

Stress is the degree of prominence of one syllable in relation to the surrounding syllables.

Rhythm refers to the patterns of recurrence of stress. The rhythm of English is characterized by the regular recurrence of stressed syllables at relatively uniform intervals of time.

1.1 Conclusions

Pronunciation involves the use of all the features of sound –including intonation and rhythm– that constitute the sound system of a language.

The sound system of different languages differ drastically in intonation, stress and rhythm. Therefore, it is important to know the *tripod* of pronunciation –the sounds, rhythm and intonation of a language–. This is essential to understand what people are saying when they speak to us, and to make ourselves understood when we speak to others, because we should not forget the "language is communication". That is why, when you do your listening and oral practice, it is important for you to hear and produce the consonant and vowel sounds within appropriate intonation and rhythm units.

2 BLENDING AND RHYTHM GROUPS

We have already seen that in order to have a good pronunciation it is necessary to give to our speech the proper intonation, rhythm and stress. But pronunciation also implies the *blending* of the final sound of each word and syllable with the initial sound of the one that follows within the same thought group.

By means of pauses we normally divide long sentences into two or more thought groups, or rhythm groups. A rhythm group, then, is a portion of a sentence separated from the rest by a pause or pauses. It is impossible to establish rules for the division of sentences into thought groups. Different persons emphasize different ideas, and individuals vary a great deal in their ability to keep on talking without stopping for breath. Phrasing depends upon the meaning of what you say.

Within thought groups, words and syllables are not pronounced as separate units; the flow along smoothly, and one unit seems to blend into the next. For example, blending between the two words in *read it* is as close as the blending between the two syllables of *reading*. Within a thought group a speaker does not completely interrupt, even for a fraction of a second, the outward flow of his breath. The blending is accomplished by this uninterrupted flow of breath, and by the fact that even while one sound is being formed, the speech organs are already moving to the position in which the next sound is to be formed.

3 THE PHONEMIC ALPHABET

You already know that when you do your listening and oral practices, it is important for you to hear and produce the consonant and vowel sounds with appropriate intonation in rhythm units. In order to reach this objective you have to develop the sharpness of your ear and your ability as an imitator.

These vowel and consonant sounds that you should be able to hear and produce are *speech sounds*. A speech sound is a sound that carries communication and is produced by the speech apparatus.

The ordinary spelling of many English words has so little relation to their sound that spelling is nearly useless as a guide to pronunciation. This is why it is difficult to know how to pronounce a word when one first looks at it.

The use of a special alphabet facilitates the learning of pronunciation. This graphic representation utilizes only one symbol for each significant sound, so that there is one-to-one relationship between sound and symbol. These significant sounds are called phonemes.

A phoneme is the smallest contrastive sound unit that may bring about a change in meaning. Phonemes are represented by phonemic symbols and enclosed within square brackets, like this: [b].

The symbols of the International Phonetic Alphabet (IPA) may be used to represent the phonemes of English. This alphabet has the advantage of being more widely known than any other. A great many of these symbols are exactly like the normal printed letters of the alphabet; but for some other sounds the traditional letters cannot serve as symbols, and new ones are necessary.

Sometimes you may wish to write down the pronunciation of a new word, so as to be able to recall it later. A phonemic transcription will make it easier to recall pronunciation.

Table 1 shows the phonemic alphabet we will use, with an example of the spelling and phonemic transcription of a word to illustrate each symbol.

4 THE SPEECH APPARATUS

Human speech consists of a succession of distinctive sound units, or phonemes. These sound units are produced by the speech apparatus and, as you know, the can be conventionally represented by different symbols.

Vowel Sounds	**Diphthongs**	**Consonants**
[i] s**ee** [si]	[aɪ] m**y**	[p] **p**ut
[ɪ] s**i**t [sɪt]	[eɪ] pl**ay**	[b] **b**ut
[ɛ] s**e**t [sɛt]	[ɔɪ] b**oy**	[t] **t**en
[æ] s**a**t [sæt]	[ɑʊ] n**ow**	[d] **d**ay
[ɑ] c**a**lm [cɑm]	[oʊ] h**o**me	[k] **c**ome
[ɒ] n**o**t [nɒt]		[g] **g**o
[ɔ] b**ough**t [bɔt]		[ʧ] **ch**ild
[ʊ] p**u**t [pʊt]		[ʤ] j**udg**e
[u] s**oo**n [sun]		[m] **m**an
[ə]-[ɚ] **a**bout-oth**er**		[n] **n**ot
[ʌ] c**u**t [kʌt]		[ŋ] lo**ng**
[ɝ] w**or**d [wɝd]		[r] **r**un
		[l] **l**ike
		[f] **f**ool
		[v] **v**ery
		[θ] **th**in
		[ð] **th**em
		[s] **s**ome
		[z] **z**oo
		[ʃ] **sh**ip
		[ʒ] plea**s**ure
		[h] **h**at
		[j] **y**et
		[w] **w**ant
		[hw] **wh**ite

Table 1: The Phonemic Alphabet

For the production of voice, the human speech apparatus depends upon three fundamental factors: a source of energy - the lungs; a vibrating body - the vocal cords; and a resonator - passages leading from the larynx to the outer air.

In order to identify the organs of speech we should go over the following diagram:

There are movable and immovable organs of speech.

Movable organs of speech	**Immovable organs of speech**
Lungs	Hard palate
Vocal cords	Alveolar ridge
Soft palate -uvula (the ending of the soft palate)	Teeth
Tong	
Lower jaw	
Lips	

The sounds of English are all produced by air which comes from the lungs into the larynx and then passes through the mouth or the nasal cavity. Contraction of the lungs expels the air. The other organs of speech modify this stream of air in order to produce different sounds. In section 5 you will have the description of the organs of speech.

5 DESCRIPTION OF THE ORGANS OF SPEECH

`lungs` The lungs are the source of energy for our vocal activity. The contraction of the lungs expels the air and forces it out.

`vocal cords` The vocal cords are membrane located in the larynx. They can adopt different positions, and in this way affect speech sounds.

Speech sounds may be voiced or voiceless. They are voiced if in their production there is vibration of the vocal cords, and they are voiceless if there is no vibration of the vocal cords. The opening between the vocal cords is called the glottis.

`soft palate – uvula` The soft palate is the movable part of the roof of the mouth . It can be lowered so that the air goes through the nasal passage, as in the production of [m, n, ŋ]; or it may be raised so that the air goes through the mouth, as in all the other consonant sounds, as well as in all the vowel sounds.

The pendulous of the soft palate is called the uvula.

During whispering, the back part of the vocal cords is open, but the front part is frequently closed.	In the production of voice the vocal cords open and close very rapidly.	During breathing, or during the production of voiceless sounds, the vocal cords are usually open , or apart.

Table 2: Diagram of the Positions of the Vocal Cords

tongue The tongue is a fleshy muscle that can move in many ways. The tongue is capable of making many types of movements and, consequently , of modifying the air stream in numerous ways.

To study its movements in the production of speech sounds, we divide the tongue into four parts: tip, blade, front and back.

lower jaw The lower jaw is a bony structure that borders the lower part of the mouth. It can move up and down, decreasing or increasing the size of the mouth.

lips The lips may assume different shapes in the production of sounds. They may close or open in various ways. The shape the adopt affects the shape of the mouth cavity.

hard palate The hard palate is the immovable part of the roof of the mouth. It is located in the upper part of the mouth.

alveolar ridge The alveolar ridge, or teethridge, is the inner surface of the gums of the upper front teeth.

teeth The teeth affect the air as it leaves the mouth, and they often affect the position of the tip of the tongue.

6 ENGLISH VOWEL SOUNDS

Speech sounds are classified according to the way they are produced. The main classification divides them into vowel and consonant sounds.

A vowel sound is a voice sound. In its production, the air passes through the mouth in a continuous stream, without obstruction or narrowing. No audible friction is produced; the sound that we hear is the result of the vibration of the vocal cords.

The vowel sounds in English are produced by different positions of the tongue within the mouth and by the rounding and unrounding of the lips.

The organs fundamentally involved in the production of vowel sounds are the tongue and the lips, so in order to describe them we classify vowel sounds according to:

1. the position of the tongue or degree of raisin, that is, its *height*. Here we distinguish four classes of vowel sounds:
   a) close
   b) half-close
   c) half-open
   d) open
2. the part of the tongue that is raised the highest, that is, the *depth* of the sound. Here we distinguish three classes of vowel sounds:

   front vowels those in which the main raising is made by the front of the tongue towards the hard palate.

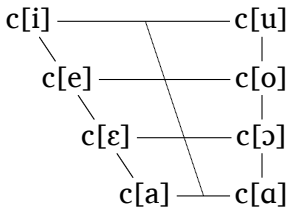

Figure 1: The eight primary cardinal vowels

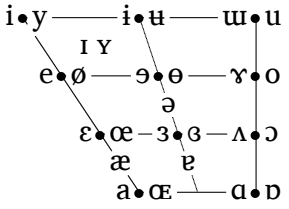

Figure 2: The IPA vowel chart

central vowels those in which the center of the tongue is raised towards the joining of the hard and soft palates.

back vowels those in which the back of the tongue is raised towards the soft palate.

7 THE CARDINAL VOWELS

Vowels can be easily classified as *front*, back, and central, according to the *part of the tongue* that is raised; and as *close*, *half-close*, and *open*, according to the *degree* of raising which takes place. But this broad way of classifying them des not facilitate an exact description of the wide variety of English vowel.

To solve this problem, the English phonetician Daniel Jones created a scheme of *cardinal vowels*. These vowels do not belong to any particular language; they have been chosen arbitrarily to represent certain well-defined tongue positions, and to serve as points of reference for the description of vowels.

When the eight primary cardinal vowels are already identified, any vowel can be graphically represented within the cardinal vowel quadrangle. Its description can then be made with acceptable precision by using as reference the unchangeable position of the nearest cardinal vowel.

8 ENGLISH DIPHTHONGS

A diphthong is a combination of two vowel sounds, pronounced within one syllable. In reality it is a gliding sound, that is, a sound that starts from an initial position and moves gradually but swiftly to a final position.

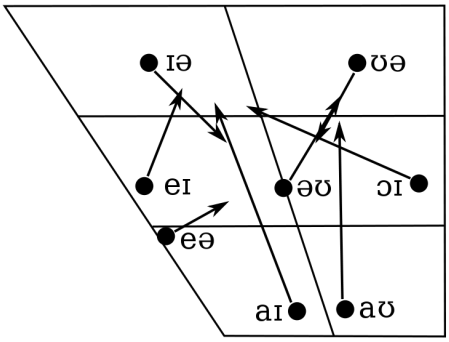

Figure 3: English diphthongs

There are different types of diphthongs. English diphthongs are of the "falling" type. A falling diphthong is one whose movement is from a stressed to an unstressed element, that is it has its prominence on the first element.

English diphthongs are transcribed phonemically with two symbols, the first representing the starting point of the gliding sound, and the second the direction in which it moves. The diphthong [aɪ], for example, starts at the position of [a], and moves towards the position of [ɪ] but does not actually reach it.

English diphthongs can be shown on the Cardinal Vowel Quadrangle as indicated in Figure 3.

9 ENGLISH CONSONANT SOUNDS

A consonant sound is produced by the obstruction of the air stream as it comes from the lungs through the mouth or the nose.

These obstructions or changes in the shape of the air stream are caused by the movements of various parts of the speech apparatus.

There are four essential factors for classifying a consonant sound:

1. Place of articulation
2. Manner of articulation
3. Presence or absence of voice
4. Position of the soft palate

The place of articulation is where the closure of narrowing takes place.

The manner of articulation is the type of closure or narrowing produced at the place of articulation.

The presence or absence of voice depends on the vibration or non-vibration of the vocal cords. As a result, there are voiced and voiceless sounds.

The position of the soft palate may be raised or lowered. If it is raised, the air escapes through the mouth and the sounds produced are oral sounds. If the soft palate is lowered, the air escapes through the nose and the sounds produced are nasal sounds. In English the nasal sounds are three: [m, n, ŋ].

Place of articulation

bilabial The two lips are the primary articulatiors. Ex. [p, b, m].

labio-dental The lower lip articulates with the upper teeth. Ex. [f, v].

dental The tongue tip and rims articulate with the upper teeth. Ex. [θ, ð].

alveolar The blade, or tip and blade of the tongue articulate with the alveolar ridge. Ex. [ʧ, d, l, n, s, z, r].

palato-alveolar The blade, or tip and blade of the tongue articulate with the alveolar ridge and there is at the same time a raisisng of the front of the tongue towards the hard palate. Ex. [ʃ, ʒ, ʧ, ʤ].

palatal The front of the tongue articulates with the hard palate, Ex. [j].

velar The back of the tongue articulates with the soft palate. Ex. [k, g, ŋ].

glottal A narrowing causing friction, but not vibration, between the vocal cords. Ex. [h].

Manner of articulation

plosive A complete closure at some point in the vocal tract behind which the air pressure builds up and can be released explosively. Ex. [p, b, t, d, k, g].

affricate A complete closure at some pint in the mouth, behind the air pressure builds up; the separation of the organs is slow compared with that of a plosive, so that friction is a characteristic second element of the sound. Ex. [ʧ, ʤ].

nasal A complete closure at some point in the mouth but, the soft palate being lowered, the air escapes through the nose. Ex. [m, n, ŋ].

lateral A partial closure is made at some point in the mouth, the air-stream being allowed to escape on both sides of the contact. Ex. [l].

fricative Two organs approximate to such an extent that the air stream passes through them with friction. Ex. [f, v, θ, ð, s, z, ʃ, ʒ, h].

glide In producing a glide, the organs of speech start from an initial position and immediatly move in the direction of other sound. Sounds [j] and [w] —called semi-vowels, semi-consonants, or vowel-glides— are included in the consonantal category on functional grounds, but from the point of view of phonetic description the are treated as vowel glides. Ex. [j, w].

Table 3 will facilitate the study of the classification of English consonants.

Manner of articulation	Bilabial	Labio-dental	Dental	Alveolar	Palato-alveolar	Palatal	Velar	Glottal
Plosive	p, b			t, d			k, g	
Affricate					ʧ, ʤ			
Nasal	m			n			ŋ	
Lateral				l				
Fricative		f, v	θ, ð	s, z	ʃ, ʒ			h
Glide				r		j	w	

Table 3: Table of English Consonants

10 WORD STRESS

Stress is the key to the pronunciation of an English word. That is why the location of the stress should always be learned with the word.

We put stress on a syllable when we pronounce it with such force as to give it more importance than the surrounding syllables, to make it stand out among them. e.g. *-ter* in determine [dɪˈtɝmin].

A polysyllabic word frequently has two stressed syllables, one of which is usually more prominent than the others. e.g. *economical*.

The most important syllable carries what is called the *primary stress*, and the next most important syllable carries the *secondary stress*. In the case of *economical*, the primary stress falls on *-nom* and the secondary on *e-*.

The stressing of a syllables in words of more than one syllables is called *word stress*.

Unfortunately, there are no infallible rules for determining which syllables of a word should be stressed, but certain observations should be of help.

1. As a general rule, the majority of the English words are stressed at the beginning.
2. When a word contains a prefix of suffix, the stress remains on the base word.
3. Compound nouns ordinarily have a primary stress on the first component and a secondary stress on the second. E.g *drugstore* [ˈdrʌgˌstoʊr], *weatherman* [ˈwɛðɚˌmæn].
4. In compound verbs the reverse is true; there is usually a secondary stress on the first component and a primary stress on the second. E.g. *understand* [ˌʌndɚˈstænd], *overlook* [ˌoʊvɚˈlʊk].
5. In reflexive pronouns the stronger stress falls on the last syllable. E.g. *myself* [məˈsɛlf], *yourself* [jʊrˈɛlf].
6. Numbers ending in *-teen* may receive the stress on either syllable, but it is best to stress them always on the last syllable, so as to distinguish clearly between *thirty* [ˈθɝtɪ] and *thirteen* [θɝˈtin], *forty* [ˈfɔrtɪ] and *fourteen* [fɔrˈtin].
7. A large group of words, which may be used either as nouns or verbs, have a difference in stress to indicate the difference in usage. In all such cases, the noun is stressed on the first syllable, the verb on the second. E.g.

object [ˈɑbʤɪkt]	object [əbˈʤɛkt]
permit [ˈpɝmɪt]	permit [pɚˈmɪt]
present [ˈprɛzn̩t]	present [prɪˈzɛnt]
rebel [ˈrɛbl̩]	rebel [rɪˈbɛl]
record [ˈrɛkɚd]	record [rɪˈkɔrd]

8. Words ending in *-tion*, *-sion*, *-ic*, *-ical*, and *-ity*, however, almost always have a primary stress on the syllable preceding the ending. The addition of one of these suffixes may, therefore, result in a shift of stress. E.g. *contribute* [kənˈtrɪbjʊt], *contribution* [ˌkɑntrɪˈbjʊʃən], *economy* [ɪˈkɑnəmɪ], *economic* [ˌɪkəˈnɑmɪk], *biology* [baɪˈɑləʤɪ], *biological* [baɪəˈlɑʤɪkl̩], *public* [ˈpʌblɪk], *publicity* [pəˈblɪsətɪ].

11 SENTENCE STRESS

Most of the time you do not talk in words, but in sentences, or at least in phrases. Therefore your knowledge of stress must go beyond words.

You already know that the rhythm of English is characterized by the regular recurrence of stressed syllables at relatively uniform intervals of time. In the sentence “I am glad to see you”, there are normally two stresses: on glad and see. These are words of only one syllable, but the emphasis that is put on them is in many ways the same as the emphasis put on the first syllable of history [ˈhɪstərɪ]. When sentence stress falls on a word of more than one syllable, it always falls on the syllable which normally receives word stress, for example, “I’ll meet you tomorrow.”

But, which words should be stressed in a sentence? You can consider two main types of words:

1. *content words*, which have meaning in themselves, like nouns, verbs, adjectives, adverbs, etc.

2. *function words*, which have little or no meaning other than grammatical idea they express, such as articles, prepositions, pronouns, and auxiliary verbs.

In general content words are stressed, but function words are left unstressed, unless the speaker wishes to call special attention to them. In combination of verb plus preposition (adverb), it is normally the adverb which receives sentence stress, not the verb. e.g. *To split úp*, *to put ón*.

It is also possible to vary these principles and to distribute the sentence stresses in some other way. This may happen for one of two reasons:

1. For special stress, that is, to call special attention to a word which normally receives no stress. Such special stress on a function word adds a meaning which the sentence would not otherwise have. e.g. “I am súre *yóu* will succeed in your examinations.”

2. To give the sentence a more regular rhythm. e.g. “I shall deliver it tó you.”

To summarize, the basic principles of sentence stress are: content words are stressed, and function words are unstressed.

These principles are varied when the speaker's wishes is to convey a special intention of felling.

12 OBSCURATION OF VOWELS

The rhythm pattern made up by the alternation or stressed and unstressed syllables is strongly reinforced in English by the phenomenon known as the obscuration of vowels. The unstressed syllables are so unimportant, from the point of view of rhythm, that it is no even necessary to count them.

By pronouncing the vowel of an unstressed syllable obscurely, as [ə] or [ɪ], a speaker weakens that syllable even more and increases the contrast between the unstressed and the stressed syllables.

There is a strong tendency to obscure the vowels of the most common unstressed words of one syllable, in the same manner unstressed vowels of polysyllables are obscured; that is, pronouncing them as [ə] or [ɪ].

There are, then, two separate pronunciations of the most common unstressed words: one *obscured*, and one *clear*. A list of such words is given in Table 4.

Word	Obscured sound	Example	Clear sound	Transcription
a	[ə]	In **a** car	[eɪ]	[ɪn əˈkɑr]
an	[ən]	get **an** egg	[æn]	[ˈgɛt ənˈɛg]
and	[ən] or [n]	high **and** low	[ænd]	[ˈhɑɪ ənˈloʊ]
are	[ər]	two **are** ready	[ɑr]	[ˈtu ərˈrɛdɪ]
can	[kən]	you **can** come	[kæn]	[ju kən ˈkʌm]
had	[hæd]	I **had** been	[hæd]	[ɑɪ həd ˈbin]
has	[həz]	it **has** gone	[hæz]	[ɪt həz ˈgɔn]
have	[həv]	we **have** seen	[hæv]	[wɪ həvˈsin]
of	[əv]	three **of** us	[ʌv]	[ˈθri əv ˈʌs]
or	[ər]	one **or** two	[ɔr]	[ˈwʌn ərˈtu]
that	[ðət]	those **that** went	[ðæt]	[ðoʊz ðət ˈwɛnt]
the	[ðə] or [ðɪ]	on **the** right	[ði]	[ɔn ðə ˈraɪt]
to	[tə] or [tʊ]	five **to** two	[tu]	[ˈfaɪv tə ˈtu]
was	[wəz]	it **was** late	[wʌz]	[ɪt wəz ˈleɪt]

Table 4: Words Most frequently Obscured

The verbs *are*, *can*, *had*, *has*, *have*, and *was* are usually obscured, but are pronounced *clear* wherever they receive sentence stress; that is, at the end of a sentence or in an attached question. e.g.

- Yes, it *is*.
- Who was here? John *was*.
- The flags are an excellent idea, *aren't* they?

The obscuration of vowels can indeed affect meaning. If you do not obscure the *a* of *can* in "I *can* tell you", you may be understood to say precisely the opposite of what you intended: "I *can't* tell you".

13 THE ENDINGS -ed AND -s

13.1 Pronunciation of -ed

The ending *-ed*, added to regular English verbs to form the past tense and past participle, has three different pronunciations. [t] as in *wished* [wɪʃt], [d] as in *failed* [feɪld], and [ɪd] as in *needed* [ˈnidɪd].

The sounds of the endings are determined by a very simple phonetic principle: when two consonants are pronounced together, it is difficult to voice one and leave the other voiceless, and it is easy to voice both or leave both voiceless. Therefore, the ending *-ed* is pronounced [d] after a voiced sound, and [t] after a voiceless one.

To summarize, you may say that the ending *-ed* is pronounced:

1. [d] after all voiced consonant sounds except [d], and after all vowel sounds. e.g. plann**ed** [plænd], judg**ed** [ʤʌʤd], play**ed** [pleɪd].
2. [t] after all voiceless consonant sounds except [t]: e.g. kiss**ed** [kɪst], ripp**ed** [rɪpt], thank**ed** [θæŋkt].
3. As a separate syllable, [ɪd], after [d, t]. e.g. protect**ed** [prəˈtɛktɪd], intend**ed** [ɪnˈtɛndɪd], want**ed** [ˈwɑntɪd].

13.2 Pronunciation of -s

In English, to make a noun plural or possessive, or to put a verb in the third person singular form of the present tense, we add [s, z] to the end of the word. This ending is spelled in different ways: *-s*, *-es*, *-'s* or *-s'*.

However it may be spelled, the ending is pronounced according to phonetic principles, in one of three ways: [z], [s], or [ɪz].

To summarize, you may say that the ending *-s* (*-es*, *-'s* or *-s'*) is pronounced:

1. [z] after all voiced consonant sounds except [z] and [ʒ], and after all vowel sounds. e.g. gam**es** [geɪmz], call**s** [kɔlz], show**s** [ʃoʊz].
2. [s] after all voiceless consonant sounds except [s] and [ʃ]: e.g. Jack'**s** [ʤæks], wrap**s** [ræps].
3. As a separate syllable, [ɪz], after a sibilant [z, s] or [ʒ, ʃ]: e.g. hous**es** [ˈhɑʊsɪz], George'**s** [ˈʤɔrʤɪz], box**es** [ˈbɑksɪz], push**es** [ˈpʊʃɪz].

If the final *s* is a part of the basic word itself there is no logical way to decide whether it will be pronounced [s] or [z]. Here is a list of the most common such words.

[z]	[s]
as [əz], was [wɑz] or [wəz]	this [ðɪs]
has [hæz] or [həz]	thus [ðəs]
his [hɪz], these [ðiz]	us [əs]
is [ɪz]	yes [yɛs]

14 SYLLABIC CONSONANTS

You are accustomed to thinking that every syllable must include at least one vowel, yet in words such as *little*, *sudden*, and *wouldn't* there are only consonant sounds in the final syllable. These are known as syllabic consonants, since they may make up a syllable without the accompaniment of vowels.

In phonemic transcription, syllabic consonants are indicated by drawing a short vertical line below them.

E.g.: little [lɪtl̩], sudden [sʌdn̩], wouldn't [wʊdn̩t].

In general, syllable consonants occur when a syllable ends in [t], [d], or [n], and the next syllable is unstressed and contains an [l] or [n].

The four sounds that are involved in syllabic consonants are: [t], [d], [n], and [l]. They are the four which are formed with the tip of the tongue touching the tooth ridge, i.e. they are alveolar sounds.

In pronouncing cotton, for example, the tongue tip goes to the tooth ridge to form [t], and just stays there to pronounce the following [n]. There should not even be a brief separation of tip and tooth ridge between [t] and [n]. If the tip of the tongue breaks contact and moves from its fixed position for even a fraction of a second it will result in the insertion of a schwa [ə] between the two consonants.

In rapid conversational speech, syllabic consonants may occur in other cases where the sounds have the same places of articulation: between [p] or [b] and [m], as in *stop'em* [ˈstɑpm̩] and between [k] or [g] and [ŋ], as in *I can go* [aɪkŋgoʊ].

Some phoneticians also transcribe as syllabic consonants such combinations as the [l] after the [s] in *pencil*, [ˈpensəl] or [ˈpɛnsl̩], and the [l] after the [p] in apple, [ˈæpəl] or [ˈæpl̩], where the places of articulation are not identical.

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