

Faculty of Arts

Second year Arts

English Dept.

English Phonetics II

AY 2022-2023

English Phonetics II

A COMPILED COURSEBOOK FOR TEACHING AND EDUCATIONAL PURPOSES ONLY

ENGLISH PHONETICS II

(A COMPILED COURSE-BOOK FOR TEACHING AND EDUCATIONAL PURPOSES ONLY)

LEVEL TWO

2nd YEAR Arts

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A Y (2022-2023)

English Phonetics II

What's phonetics?

A BIRD'S EYE VIEW

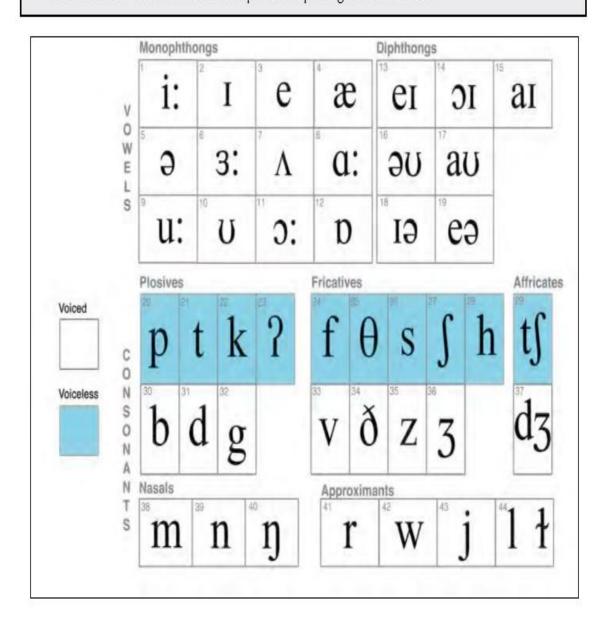
- Phonetics is the study of speech sounds in human language.
- How speech sounds are articulated by the human vocal tract.
- We also learn the main symbols and diacritics used to transcribe human sounds in the International Phonetic Alphabet

International Phonetic Alphabet (IPA)

Contains symbols to represent all sounds from all languages 1-to-1 correspondence between sounds and symbols Includes diacritics to indicate tone, stress, etc. Many symbols from or based on Latin and Greek alphabets Not the only phonetic alphabet in use.

IPA Chart

- +IPA is phonetic script, it show us the **sounds to pronounce** rather than spelling.
- *The script is very useful for **improving accuracy** in pronunciation.
- + You will learn each sound and its possible spellings on the course.



Type of Sound	Sound	Example 1	Example 2
	p	p in	ca p
	b	b ag	ro b e
plosive (complete block of air followed by explosion)	t	t ime	la t e
	d	d oor	fee d
	k	c ash	SO CK
	g	girl	fla g
	7		foo t ball

	f	f ull	kni f e
	V	vest	cave
	θ	th ink	ear th
fricative	ð	th ose	ba th e
(constant flow of air "squeezed"	8	s ight	ki ss
through a block, sounds like friction)	Z	Z 00	no s e
inction)	ſ	shirt	cra sh
	3		plea s ure
	h	h igh	

affricate	ţſ	ch ose	ca tch
(plosive followed by fricative)	dz	joy	sta g e
nasal	E	m ood	cal m
IIMOMI	n	n ow	tur n
(air is released through the nose)	7		ba ng
annravimant	W	wall	
approximant	j	y ellow	
(vowel-like consonant, no full	1	r 00M	
block of air occurs)	1/†	law	pill

Vowels

A neutral English accent has 19 vowel sounds.

Type of Sound	Sound	Spellings	Examples
	Ф	a, e, o, u	alive, the, today, supply
	I	i	thin, sit, rich
short	ΰ	u, oo, ou	p u t, l oo k, sh ou ld
(single mouth	е	e, ea, ie	went, bread, friend
position)	٨	u, o	f u n, l o ve, m o ney
	æ	a	c a t, h a nd, f a n
	α	o, a	r o b, t o p, w a tch

	į:	ee, ea	n ee d, b ea t, t ea m
long	U:	ew, 00, 0_e	few, boot, lose
/single mouth	3.	ir, ur, wor	th ir d, t ur n, w or se
(single mouth position)	0;	al, aw, or, our, oor	t al k, l aw , p or t
	a:	a, al, ar	gl a ss, h al f, c ar

	eī	ay, ea, ae, ai	p ay , gr ea t, m ai d
	IC	oi, oy	n oi se, t oy , ch oi ce
diphthong	aı	ie, i_e, i, y	fine, like, might
(double mouth	Üθ	0, 0_e, 0a	n o , st one , r oa d
position)	au	ou, ow	round, how, brown
	ΙĐ	eer, ear	b eer , h ear , st eer
	69	are, ere, ea, ai	c are , th ere , b ear

Schwa

Word IPA Transcription

around 'mænə

manner 'seɪlə

sailor 'kæktəs

cactus əˈraʊnd

The schwa sound $/\partial \partial /$ can be spelt as < a >, < e >, < o > and < u >.

The schwa is the most common vowel sound in English.

The schwa is weak - it can never be stressed.

The production of the schwa is neutral: lips, jaw and tongue are relaxed

Consonants

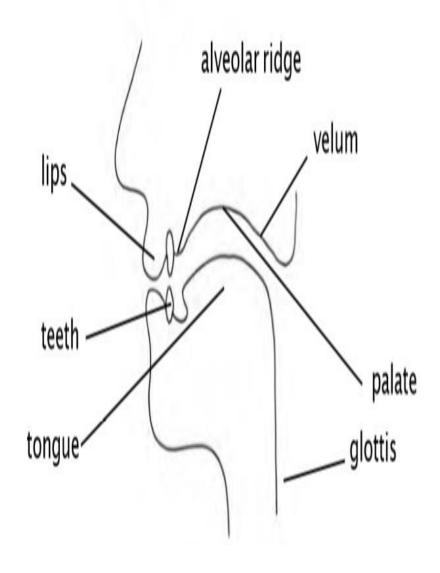
Consonant sounds are produced by blocking air as it leaves the mouth.

This course shows you how to pronounce all 25 consonant sounds of English.

Type of Sound	Sound	Example 1	Example 2
	р	pin	ca p
	b	b ag	ro b e
plosive	t	time	la t e
	d	door	fee d
(complete block of air followed by explosion)	k	cash	sock
	g	girl	fla g
	?	-	foo t ball
	f	full	kni f e
	٧	v est	cave
fuicativa	θ	th ink	ear th
fricative	ð	those	ba th e
(constant flow of air "squeezed"	s	s ight	kiss
through a block, sounds like friction)	Z	Z 00	no s e
incuon)	ſ	shirt	cra sh
	3	-	plea s ure
	h	h igh	-
affricate	t∫	chose	catch
(plosive followed by fricative)	dʒ	joy	sta g e
nasal	m	mood	cal m
	n	now	tur n
(air is released through the nose)	ŋ	-	ba ng
approximant	w	wall	-
аррголінані	j	y ellow	-
(vowel-like consonant, no full	r	room	-
block of air occurs)	1/†	law	pill

Consonants Articulation

- * We use the articulators: tongue, lips & teeth, to block air.
- The **places** where we block air in English are shown below.



Vowels

A neutral English accent has 19 vowel sounds. There are 3 types of English vowel sound - short, long and diphthong. English spelling does not always show us which sound to pronounce. We will learn how to pronounce each individual vowel sound on this course

Type of Sound	Sound	Spellings	Examples
	Ð	a, e, o, u	alive, the, today, supply
	I	i	thin, sit, rich
short	σ	u, oo, ou	p u t, l oo k, sh ou ld
(single mouth	е	e, ea, ie	went, bread, friend
position)	۸	u, o	fun, l o ve, m o ney
	æ	a	c a t, h a nd, f a n
	α	o, a	r o b, t o p, w a tch
	i:	ee, ea	need, beat, team
long	u:	ew, oo, o_e	few, boot, lose
(t t	3:	ir, ur, wor	third, turn, worse
(single mouth position)	э:	al, aw, or, our, oor	t al k, l aw , p or t
	α:	a, al, ar	gl a ss, h al f, c ar

	еі	ay, ea, ae, ai	p ay , gr ea t, m ai d
	OI	oi, oy	n oi se, t oy , ch oi ce
diphthong	aı	ie, i_e, i, y	fine, like, might
(double mouth	Đΰ	o, o_e, oa	n o , stone, road
position)	aʊ	ou, ow	r ou nd, h ow , br ow n
	ΙĐ	eer, ear	beer, hear, steer
	еə	are, ere, ea, ai	care, there, bear

Vowel Articulation

A vowel sound is made by shaping the mouth as air flows out.

Articulators used to shape the mouth are: tongue, lips and jaw.

The chart below shows examples of mouth positions in English.

International phonetic alphabet symbols

Vowels

/I/ pin, English, business

/e/ bed, head, bury, exit

/æ/ cat, bag, apple, black

/ə/ the, a, woman, banana

/ʊ/ look, put, could, cushion

/p/ clock, what, because

/n/ cut, come, mother

/3:/ girl, burn, word, he

ard

/aː/ car, art, heart, half

/ɔː/ or, board, door, small

/I:/ sea, bee, people, receive

/uː/ too, blue, fruit, fool

Dipthongs

/eɪ/ take, pay, wait, ballet

/aɪ/ five, sigh, height, buy

/ɔɪ/ noise, boy, lawyer

/อช/ no, road, sew, broken

/aʊ/ round, renown, doubt

/1ə/ here, deer, dear, fierce

/eə/ care, air, mayor, prayer

/ชอ/ poor, insure, tour, moor

•	Position			
Example	tongue	lips	jaw	
i: (keep)	front	spread	close	
i. (keep)	65)			
	centre	relaxed	mid	
з: (bird)	38			
	back	rounded	open	
p (watch)	2007	6		

Consonants

/p/ play, stop, speak, power

/b/ bad, baby, big, object

/t/ ten, later, little, pot

/d/ day, advice, bed

/k/ character, quick, taxi

/g/ got, exam, ignore, finger

/f/ food, laugh, telephone

/v/ vain, over, Stephen

/θ/ thin, earth, method, both

/ð/ they, father, breathe, with

/s/ small, since, scene, psalm

/z/ zoo, goes, xenophobe

/ʃ/ shell, nation, machine

/ʒ/ genre, measure, vision

/h/ hot, hair, whole, whose

/m/ moon, lamp, lamb

/n/ can, snow, pneumonia

/ŋ/ string, singer, tongue

/tʃ/ chair, match, future

/dʒ/ just, general, age, soldier

/l/ look, small, bottle, isle

/r/ real, train, wrong, write

/j/ yes, Europe, university

/w/ window, twin, quick, why

Exercise

Match the phonetic transcriptions with the words.

- 1. /ʃʌt/ a. later
- 2. /haːt/ b. joke
- 3. /θɪŋk/ c. heart
- 4. /waːk/ d. there
- 5. /leɪtə/ e. doubt
- 6. /bɔːt/ f. work
- 7. /puːl/ g. shut
- 8. /daut/ h. think
- 9. /dʒəʊk/ i. pool
- 10. /ðeə/ j. bought

Phonetics is concerned with how speech sounds are produced (articulated) in the vocal tract (a field of study known as articulatory phonetics), as well as with the physical properties of the speech sound waves generated by the larynx and vocal tract (a field known as acoustic phonetics). Whereas the term phonetics usually refers to the study of the articulatory and acoustic properties of sounds, the term phonology, is often used to refer to the abstract principles that govern the distribution of sounds in a language.

Physiology of Speech Production

At its fundamental level the speech signal is a rapidly flowing series of noises that are produced inside the throat, mouth, and nasal passages and that radiate out from the mouth and sometimes the nose. One common- sense view is that learning to speak a language requires only the control of a few muscles that move the lips, jaw, and tongue. These anatomical structures are the most easily observed in any case. In reality the situation is much more complex, for over 100 muscles exercise direct and continuous control during the production of the sound waves that carry speech (Lenneberg 1967). These sound waves are produced by a complex inter- action of

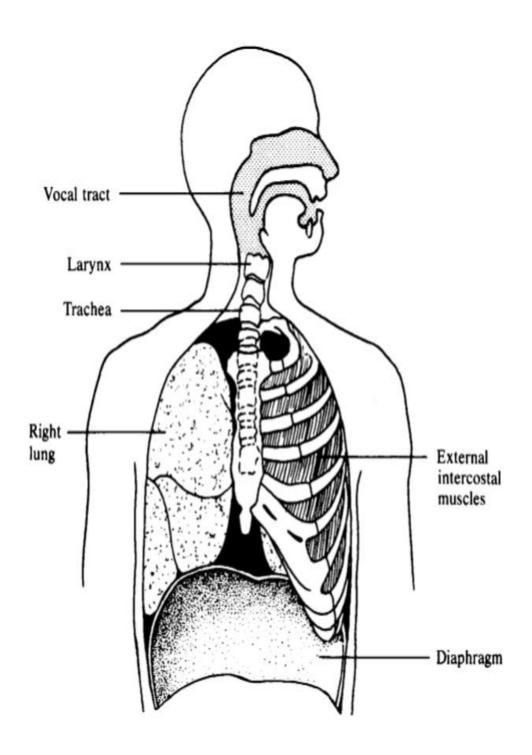
(1) an outward flow of air from the lungs,

- (2) modifications of the airflow at the larynx (the Adam's apple or "voice box" in the throat), and
- (3) additional modifications of the airflow by position and movement of the tongue and other anatomical structures of the vocal tract. We will consider each of these components in turn.

Airflow from the Lungs during Speech

The flow of air from the lungs during speech differs in several important respects from the airflow during quiet breathing. First, during speech, three to four times as much air is exhaled as during quiet breathing. Second, in speech the normal breathing rhythm is changed radically: inhalation is more rapid and exhalation is much more drawn out. Third, the number of breaths per unit time decreases during speech. Fourth, the flow of air is unimpeded during quiet breathing, whereas in speech the airflow encounters resistance from the obstructions and closures that occur in the throat and mouth. While these alterations in the normal breathing pattern are occurring during speech, the function

of breathing (exchange of oxygen and carbon dioxide) continues with no discomfort to the speaker. One of the primary mechanisms for expanding the lungs during both guiet breathing and speech is the contraction of the diaphragm (see figure 3.2), a sheet of muscular tissue that separates the chest cavity from the abdominal region. This contraction causes the diaphragm to lower and flatten out, leading to an increase in the size of the chest cavity. The other primary mechanism for the expansion of the chest cavity is the set of muscles between the ribs in the rib cage (the external intercostals). Contraction of these muscles causes the ribs to lift up, and because of the way that the ribs are hinged, they swing out, increasing the volume of the chest cavity. Since the lungs are attached to the walls of the chest cavity, when the chest cavity expands, either from diaphragm contraction or from rib movement, the lungs, being elastic, also expand. As the lungs expand, air flows in, up to the point when inhalation is completed. During guiet breathing the diaphragm relaxes at this point, and the



Major anatomical structures involved in the production of speech. Air driven from the lungs through the trachea and the larynx into the vocal

tract is the primary source of the acoustic energy in speech. The lungs are attached to the chest wall and diaphragm, and when the diaphragm lowers, the size of the chest cavity is increased, the elastic lungs expand, and air flows inward. Similarly, air also flows inward when the muscles between the ribs (the external intercostals) con- tract and the rib cage expand outward, thus increasing the size of the chest cavity. The muscles of the diaphragm and rib cage remain active during speech, acting as a check on the outward flow of air.

Stretched lungs begin to shrink, allowing air to flow out quite rapidly at the beginning, as with air escaping from a filled balloon. During speech, however, the muscles of the diaphragm and the rib cage continue to be active, restraining the lungs from emptying too rapidly. Without this checking force, speech would be loud at first and then become quieter as the lungs emptied. Thus, humans have developed special adaptations for breathing during speech: speech is not merely "added" to the breathing cycle; rather, the breathing cycle is adapted to the needs of speech.

The Role of the Larynx in Speech

The first point where the airflow from the lungs encounters a controlled resistance is at the larynx, a structure of muscle and cartilage located at the upper end of the trachea (or windpipe). During quiet breathing the cords are relaxed and spread apart to allow the free flow of air to and from the lungs. During swallowing, however, the cords are drawn tightly together to keep foreign material from entering the lungs. For speech the most important feature of the vocal cords is that they can be made to vibrate if the airflow between them is rapid and if they have the proper tension and proximity to each other. This rapid vibration is called voicing (or phonation). The frequency of vibration determines the perceived pitch. Because the vocal cords of adult males are larger in size, their frequency of vibration is relatively lower than the frequency of vibration in females and children. The pitch of adult males' voices is thus lower than that of females and children.

production of the z-sound version of the plural morpheme We say that the z-sound is voiced, whereas the s-sound is voiceless. The lack of voicing in s is due to the fact that the vocal cords are more spread apart and tenser than during the production of z, thus creating conditions that inhibit vocal cord vibration. Other speech sounds found also require other types of vocal cord in human language configurations and movements. Speakers have a high degree of control over the sounds the vocal cords can produce. The ability to sing a melody, for example, depends on being able to change the vocal cord positions and tensions rapidly and accurately to hit the right notes. Although the ability to sing well is subject to much individual variation, the ability to control the vocal cord positions and tensions necessary for speech is well within the ability of all normal speakers. Finally, the space between the vocal cords is called the glottis, and

linguists frequently refer to sounds that involve a constriction or closure of this space between the vocal cords as glottal sounds.

The Vocal Tract

The vocal tract, the region above the vocal cords that includes the (oral) pharynx, the oral cavity, and the nasal cavity, is the space within which the speech sounds of human language are produced. We will examine the anatomical features of the vocal tract in the course of discussing how the consonants and vowels of English are formed.

THE REPRESENTATION OF SPEECH SOUNDS

What underlies the continuous flow of human speech is, in fact, a sequence of articulatory configurations that can be represented by a series of discrete units. The basis of the sound component of human language is a discrete combinatorial system that is "smeared" together in the overlapping fashion discussed earlier, much like the digital-toanalog conversion that occurs in modern electronic audio devices. In discussing the sounds of English, and the sounds of human language in general, we need a set of symbols to represent those sounds. What sort of representational system will be most useful? If we try using the conventional English orthography (spelling system) to represent speech sounds, we face problems of two major types: first, a single letter of the alphabet often represents more than one sound; and conversely, a single speech sound is often represented by several different letters. As for problems of the first type, we have already seen that the letter s represents a z-sound in the word dogs and an s-sound in the word cats.

Stops

Stops are sounds produced when the airflow is completely obstructed during speech.

/p/ A voiceless bilabial stop. The speech sound symbolized by /p/ does not have accompanying vocal cord vibration and is therefore voiceless. The airflow is stopped by the complete closure of the two lips, which gives rise to the term bilabial.

English
o,
Ħ
SIIIO
The

		PLACE OF A	PLACE OF ARTICULATION					
		Bilabial	Labiodental	Interdental	Alveolar	Alveopalatal	Velar	Glottal
MANNER OF Stops	MANNER OF ARTICULATION Stops voiceless voiced	مہ			7 P		≥ 50	
Fricatives	voiceless		<u>.</u>	6.50	ss 82	#o		ھ
Affricates	voiceless					dg d		
Nasals		目			а		s	
Liquids					_			
Glides		(w) w			-			

The symbol /p/ represents the first sound in the word pin.

/b/ A voiced bilabial stop. The sound represented by /b/ has the same place of articulation as /p/ but is accompanied by voicing.

The symbol /b/ represents the first and last sounds in the name Bob.

/t/ A voiceless alveolar stop. The alveolar consonants of English are produced when the tongue tip or blade approaches or—in the case of /t/ and /d/—touches the roof of the mouth at or near the alveolar ridge behind the upper teeth. The English sound represented by the symbol /t/ thus differs from the t's of many European languages in which the tongue tip touches the upper teeth.

A Spanish /t/, for example, is a voiceless dental stop.

The symbol /t/ represents the initial sound in the English word tin.

/d/ A voiced alveolar stop. The sound represented by the symbol /d/ has the same place of articulation as /t/ but is accompanied by

voicing. The symbol /d/ represents the first and last sounds in the word Dad.

/k/ A voiceless velar stop. Velar consonants are formed when the body of the tongue approaches or—in the case of /k/ and /g/—touches the roof of the mouth on the palate (the soft palate is called the velum).

The symbol /k/ represents the first sound in the word kite. /g/ A voiced velar stop. The sound represented by the symbol /g/ has the same place of articulation as /k/ but is accompanied by voicing. The symbol /g/ represents the first and last sounds in the word gag.

Fricatives

Fricatives are sounds produced when the airflow is forced through a narrow opening in the vocal tract so that noise produced by friction is created.

/f/ A voiceless labiodental fricative. The term labiodental indicates that the point of contact involves the (lower) lip and the (upper) teeth.

The symbol /f/ represents the first sound in the word fish.

/w/ A voiced labiodental fricative. The sounds represented by the symbols /f/ and /v/ differ only in voicing, /v/ being voiced. The symbol /v/ represents the first sound in the word vine. /θ/ A voiceless (inter)dental fricative. Both the sound symbolized as /θ/ and its voiced counterpart /δ/ are spelled with th in the current English writing system. The interdental sounds are produced when the tongue tip is placed against the upper teeth, friction being created by air forced between the upper teeth and the tongue. For most American English speakers, the tongue tip is projected slightly when it rests between the

upper and lower teeth. The symbol $/\theta$ / represents the first sound in its own name, the Greek letter theta, and in the word thin. $/\delta$ / A voiced interdental fricative. The symbol δ / is called eth (or crossed d). You can hear the difference between the sounds symbolized by $/\delta$ / and $/\theta$ / if you say then and thin very slowly. You will hear (and feel) the voicing that accompanies the $/\delta$ / at the beginning of then, and you will note that the initial consonant of thin is not voiced. The symbol $/\delta$ / also represents the first sound of the words this and that.

/s/ A voiceless alveolar fricative. Note that the fricative sound represented by the symbol /s/ is much harsher than the fricative sound represented by the symbol /θ/. The turbulence for /s/ is created by air passing between either the tongue tip or blade (for some English speakers) and the alveolar ridge, which then strikes the teeth at a high velocity. The symbol /s/ represents the first sound of the word sit. /z/ A voiced alveolar fricative. The sounds represented by /s/ and /z/ differ only in voicing, /z/ being voiced. The symbol /z/ represents the first sound in the name Zeke.

/ʃ/ A voiceless alveopalatal fricative. The symbol /ʃ/, usually spelled sh in English orthography, represents a fricative similar to /ʃ/, but the region of turbulent airflow lies just behind the alveolar ridge on the hard palate.

During the articulation of /ʃ/ the tongue tip can be positioned either near the alveolar ridge itself (with the tongue blade arched) or just behind the alveolar ridge (in which case the tongue blade does not need to be arched). The symbol /ʃ/ represents the first sound in the word ship.

/3/ A voiced alveopalatal fricative. The symbol /3/ represents the first sound in foreign names such as Jacques, but no native English words begin with /3/. More commonly, /3/ occurs in the middle of English words.

For example, the letter s in decision and measure is pronounced as the sound represented by /3/.

/h/ A voiceless "glottal" fricative.

The /h/ sound is often called a glottal fricative because the vocal cords are positioned so that a small amount of turbulent airflow is produced

across the glottis. However, the primary noise source for this speech sound is turbulence created at different points along the vocal tract where the tongue body (or blade) approaches the roof of the mouth. The point where the friction is created is determined by the vowel that follows the /h/.

In the articulation of the English word heap, for example, the tongue body is positioned high and forward, and the fricative noise is produced in the palatal region. The symbol /h/ rep- resents the first sound in the words how and here.

Affricates

An affricate is a single but complex sound, beginning as a stop but releasing secondarily into a fricative. /tʃ/ A voiceless alveopalatal affricate. The symbol /tʃ/ represents the first sound in the word chip (/tʃ/ is usually spelled as ch). In articulating this sound, the tongue makes contact at the same point on the roof of the mouth as in the articulation of the sound represented by /ʃ/. Unlike /ʃ/, though, tʃ begins with a complete blockage of the vocal tract (a stop), but then is immediately released into a fricative sound like /ʃ/.

/d³/ A voiced alveopalatal affricate. The sounds represented by the symbols /tl/ and / d³ / differ only in voicing, / d³ / being voiced. The symbol / d³ / represents the first and last sounds of the word judge (/d³ / being spelled as both j and dge, in this case).

Nasals

/m/ A bilabial nasal.

The sounds represented by the symbols /m/ and /b/ are articulated in the same manner, except that for /m/ the velum is lowered to allow airflow and sound energy into the nasal passages. The symbol /m/ represents the first sound in the word mice.

/n/ An alveolar nasal.

The sound represented by the symbol /n/ is articulated in the same position as /d/, with the velum lowered. The symbol /n/ represents the first sound in the word nice.

/n/ A velar nasal.

The symbol / η / is called eng (or even engma or engwa) and represents the final sound in the word sing. The normal English spelling for this single sound is ng.

Liquids

Liquid sounds are found in the overwhelming majority of the world's languages, and English has one: /l/. The term liquid is a nontechnical, impressionistic expression indicating that the sound is "smooth" and "flows easily."

Liquids share properties of both consonants and vowels: as in the articulation of certain consonants, the tongue blade is raised toward the alveolar ridge; as in the articulation of vowels, air is allowed to pass through the oral cavity without great friction. /l/ An alveolar liquid. In the articulation of English /l/, the tongue blade is raised and the apex makes contact with the alveolar ridge. The sides of the tongue are lowered, permitting the air and sound energy to flow outward. The symbol /l/ represents the first sound in the word life.

Glides

Glides are vowel-like articulations that precede and follow true vowels.

The term glide is based on the observation that the sequence of a glide and a vowel is a smooth, continuous gesture.

Because the tongue position in articulating the glides /j/ and /w/ is similar to the tongue position of the vowels in beet and boot, respectively, these glides are sometimes referred to as semivowels. /w/ A bilabial (velarized) glide.

The sound represented by the symbol /w/ is formed with the body of the tongue arched in a high, back position, toward the soft palate (velum). Lip rounding also accompanies the production of this sound. The symbol /w/ represents the first sound in the word wood.

/w/ A bilabial (velarized) glide (with a voiceless beginning). Some speakers of English have different initial sounds in the words which and witch. For these speakers the initial sound in which begins as a

voiceless sound, followed immediately by the glide /w/. Some linguists write this initial sound as the digraph /hw/.

/J/ An alveolar glide.

American English / J / is produced with a tongue blade that is raised toward the alveolar ridge. Many speakers also curl the apex into a retroflexed position (curled upward and backward). Others press the tongue tip against the lower gum (below the teeth) and raise the blade of the tongue toward the roof of the mouth. This sound is also produced with lip rounding (a pursing of the lips) and a retraction of the tongue root.

The symbol / J / represents the first sound in the word red. We are following IPA conventions in using the "upside-down r" symbol for this English phoneme. The "right-side-up r" symbol is re- served for trilled r, a sound found in dialects of Scottish English.

/j/ (/y/) An alveopalatal glide.

The sound represented by the symbol /j/ is formed with the body and the blade of the tongue arched in a high, front position, toward the hard palate. The symbol /j/ represents the first sound in the word yes.

Phonetic Variations on a Phonemic Theme

So far we have assumed that the sounds represented by the phonemic transcription system of English are articulated the same way each time they are produced. This assumption ignores an important aspect of the pronunciation of some phonemes. We discuss below several examples of variation in the pronunciation of certain American English consonants, variations that are common to most speakers of American English.

Types of /t/ in English

Aspirated t.

When the sound /t/ occurs at the beginning of a syllable, its pronunciation is accompanied by a puff of air called aspiration. You can observe the presence of aspiration if you hold a thin, flexible piece of paper close to the front of your mouth when you say the word tin. The paper will flutter immediately after the /t/ is pronounced. You can also place your hand in front of your mouth to feel this puff of air.

In contrast, the pronunciation of the /t/'s in the word stint is unaspirated; pronouncing these /t/'s will not cause the piece of paper to flutter. Later we will discuss the general conditions under which some English phonemes are aspirated. In order to represent more detailed aspects of pronunciation (such as aspiration), linguists use a system called (close) phonetic transcription. By convention, phonetic

symbols are enclosed in square brackets []; the symbols of the more general transcription system we have been using— which, when it satisfies conditions to be discussed below, is called a phonemic transcription—are enclosed in slant lines //.

For example, in phonetic transcription tin and stint are represented as [tln] and [stint], respectively (where a superscripted h indicates an aspirated sound and its absence indicates an unaspirated sound). In phonemic transcription they are represented as /tln/ and /stlnt/. We will discuss the difference between phonetic and phonemic transcriptions after we have discussed some of the finer phonetic details of American English speech.

Unreleased t

Final /t/ in words such as kit is frequently unreleased in the pronunciation of many speakers of American English: the tongue touches the alveolar ridge but does not immediately drop away to "release" the sound. (In contrast, in most American English dialects the pronunciation of the final stop /t/ in words such as fast is in fact released). For most speakers of American English, in the

pronunciation of the word kit, the voicing ends and the airflow stops before the tongue reaches the alveolar ridge in articulating the final /t/. Where and how is the airflow stopped in this case? The primary stop articulation in the pronunciation of final /t/ in words such as kit occurs in the larynx, rather than in the region of the alveolar ridge, even though the tongue tip does indeed make contact with the alveolar ridge immediately after the closure of the vocal cords. Recall that the glottis is the space between the vocal cords, and a stop created by closure at the glottis is called a glottal stop, represented as the symbol [?].

Glottal stop replacement of t

In certain words the tendency to have a glottal closure with the articulation of /t/ in certain environments reaches such an extreme that the glottal stop actually replaces /t/. In many speakers' pronunciation of words such as button and kitten, the stop articulation is actually carried out at the glottis, and the tongue does not, in fact, move toward the alveolar ridge until the /n/ of the final syllable is articulated. The /t/ is generally replaced by the glottal stop if the following syllable

contains a syllabic /n/. The term syllabic here refers to the fact that nasal consonants (such as /n/) can function as syllables by themselves, without an accompanying vowel. In the word button, for example, the only sound in the second syllable is the nasal [n]—there is no true vowel at all in that syllable.

Phonetic variants of the phoneme /t/ in American English

Articulatory description	Phonetic symbol	Conditioning environments	Example words
Released, aspirated	[th]	when syllable-initial	tin [thin]
Unreleased, preglottalized	[?t]	word-final, after a vowel	kit [kʰɪʔt]
Glottal stop	[?]	before a syllabic n	kitten [khīʔn̩]
Flap	[t]	between vowels, when the first vowel is stressed (approximate environment)	pitted [phírid]
Alveopalatal stop	[<u>t]</u>	syllable-initial before r	truck [t』nk]
Released, unaspirated	[t]	when the above conditions are not met first	stint [stɪnt]

Contractions in Casual Spoken English

In discussing the phonetic properties of English, we have so far focused our attention on phonetic details within single words. Now we must note that in casual spoken forms of American English there are a number of phonological contraction processes in which a sequence of words is contracted, or reduced, to a shorter sequence.

Table 3.5Phonetic form of contractions of the verb *to be* with personal pronouns in American English: Bisyllabic forms

Formal written	Formal spoken	Casual spoken bisyllabic forms
I am	/aɪ æm/	/áɪəm/ (or /aɪṃ/)
you are	/ju a.i/	/júə·/
she is	/∫i IZ/	/ʃiɨz/
he is	/hi ɪz/	/híɨz/
it is	/It IZ/	/írɨz/
we are	/wi a.i/	/wía·/
they are	/ðei ai/	/ðéɪð-/

Table 3.6Phonetic form of contractions of the verb *to be* with personal pronouns in American English: Monosyllabic forms

Casual written	Casual spoken monosyllabic forms	
I'm	[aɪm] or [am]	
you're	[jʊɹ] or [jɜ٠]	
she's	[ʃiz]	
he's	[hiz]	
it's	[Its]	
we're	[WII]	
they're	[Ľ3Ď]	

Some difficult sounds for speakers of English

/ə/

This is the most frequent vowel sound in spoken English, which can also represent several letters or syllables. It can be found in unstressed function words such as a, am, an, but, can, of; in prefixes and suffixes such as in-, suc-, to-, ad-, -ible, -able, -ment; in words such as according, lemon, minute, purpose, second etc.

Exercise

Underline the /ə/ sound in the following sentences.

- 1. We went to the theatre yesterday.
- 2. He can speak Russian and German.
- 3. Susan is famous for her Christmas cake.
- 4. The pronunciation, grammar and vocabulary are difficult.
- 5. We could ask them if they have reached a decision.
- 6. A man and a woman were waiting at the station.
- 7. They"re going to the mountains on Saturday.
- 8. The private sector is all economic activity other than government.
- 9. Where are the spoons and forks?
- 10. There were seven or eight hundred people present at the conference.

A difficult sound to reproduce for Italian speakers: world - /w3:Id/, third - /θ3:d/.

Exercise

Tick the words that contain the /3:/ sound.

- 1. Thursday 5. Tuesday 9. birthday 13. ball
- 2. does 6. Work 10. turn 14. hurt
- 3. skirt 7. ear 11. bun 15. early
- 4. short 8. nurse 12. weren"t 16. Ward

There are several letter combinations that produce this sound: mother

Exercise

///

Underline the alternative that you hear.

/mʌðə/, country - /kʌntrɪː/, flood - /flʌd/

- 1. Which county/country did you say he lived in?
- 2. She rubbed/robbed the silver to make it shinier.
- 3. There are a lot of colourful rags/rugs on the floor.

/I/
Italian does not have this sound: fill - /fɪl/, ship - /ʃɪp/.
/w/
This sound tends to be pronounced by Italian speakers as /v/.

Exercise

Underline the alternative that you hear.

- 1. There was only a little vine / wine left.
- 2. Where is the vest / west?
- 3. I saw a long whale / veil in the distance.
- 4. What was under the wheel / yeal?
- 5. Her poetry has become worse / verse

/d3/

When written with a "J", Italian speakers tend to pronounce this sound as /j/. The letter "G" can also produce this sound: general, storage, as can the combination

-dge and -age: edge, storage.

Exercise

Underline the words that contain the /dʒ/ sound.

- 1. gin 5. Yam 9. jet 13. damage
- 2. large 6. soldier 10. gear 14. mayor
- 3. goat 7. guilty 11. just 15. collage
- 4. injury 8. gum 12. get 16. College

/s/

Apart from the letter "S", the /s/ sound can be represented by a number of consonant combinations, which differ in pronunciation from the Italian: psyche, cellar, science, listen.

Exercise

Underline the words that contain the /s/ sound.

- 1. song 5. face 9. issue 13. disciple
- 2. Islam 6. city 10. months 14. sugar
- 3. vision 7. message 11. castle 15. mix
- 4. science 8. houses 12. fascism 16. Psychology

Exercise

Underline the word that the transcription represents.

1. bo:n burn born

2. θ Iŋ thing thin

3. fr:linz fillings feelings

4. vain vine wine

5. meidzə major mayor

6. ræm rum ram

7. wa:d word worried

8. fəget forget forged

9. ars eyes ice

10. huːz whose house

Difficult vowel combinations

Practice saying the following words:

u: /n/ - bun, /ʊ/ - put, /ɪ/ - busy, /e/ - bury, /uː/ - rude, /juː/ - huge, /ə/ - focus, /ɜː/ - burn.

ea: /I:/ - beach, /e/ - bread, /eɪ/ - break, /eə/ - bear, /ɪə/ - dear.

au: /ɑː/ - aunt, /ɔː/ - author, /ɒ/ - because, /eɪ/ - gauge.

oo: /uː/ - too, /ʊ/ - look, /ʌ/ - flood, /əʊ/ - brooch, /ɔː/ - floor.

ei: /eɪ/ - eight, /ɪː/ - receive, /ɪ/ - counterfeit, /e/ - leisure, /aɪ/ - height

ui: /uː/ - fruit, /ɪ/ - build, /wɪː/ - suite, /aɪ/ - guide.

ou: /aʊ/ - out, /əʊ/ - soul, /ʌ/ - touch, /ʊ/ - could, /uː/ - you, /ɔː/ - pour.

oa: /əʊ/ - road, /ɔː/ - broad.

ow: /aʊ/ - now, /əʊ/ - know, /ɒ/ - knowledge.

ough: /əʊ/ - though, /uː/ - through, /ɔː/ - bought, /aʊ/ - drought, /ə/ - borough, /ɒf/ - cough, /ʌf/ - enough.

augh: /ɔː/ - taught, /ɑːf/ - laugh.

Difficult consonant combinations Practice saying the following words:

ch: /k/ - character, /tʃ/ - choice, /ʃ/ - chef, /Ø/ - yacht.

cc: /ks/ - success, /k/ - account, /tʃ/ - cappuccino.

gn: /n/ - sign, /gn/ - recognise.

ng: /ŋ/ - sing, /ŋg/ - finger, /ndʒ/ - danger.

Exercise

Circle the word that is pronounced differently from the other three words.

- 1. accident access accommodate accept
- 2. sheep beer field people
- 3. angry jungle English spring
- 4. shout now round mould
- 5. cheese chip machine attach
- 6. signature foreign Gnostic tongue
- 7. suit fruit cruise biscuit

- 8. though rough enough tough
- 9. floor poor flood door
- 10. author caught laughter daughter

Suffixes

-s suffix

The morpheme -s of the 3rd person singular (he works), of the noun plural (books), of the genitive (John"s) and of the contraction of is or has (he"s) is pronounced in three different ways depending on the sound of

the preceding consonant:

ız after sibilant consonants: s ∫ t∫ dʒ

slices /slaisiz/ brushes /brn[iz/

churches /tʃ3ːtʃɪz/ wages /weɪdʒɪz/

s after unvoiced consonants: /f/ /k/ /p/ /t/

packs /pæks/ rates /reɪts/

laughs /laːfs/ taps /tæps/

69

z in other cases

boys /bɔɪz/ girls /gɜːlz/

clothes /klอบðz/ John"s /dʒpnz/

Some unvoiced sounds, θ and f, become voiced when the -s suffix is added.

Compare:

bath /ba:θ/ baths /ba:ðz/

knife /naɪf/ knives /naɪvz/

THIS COMPILED COURSEBOOK IS PREPARED AND USED FOR TEACHING AND EDUCATIONAL PURPOSES ONLY
Transcribe the following:

1
. judges
2. lives
3. plates
4. classes
5. breathes
6. watches
7. attends
8. tapes
9. books
10. wives

-ed suffix

The morpheme -ed of the past tense (or past participle) is also pronounced in three different ways depending on the preceding consonant:

ıd after t and d

painted /peintid/ founded /faundid/ wanted /wpntid/ rounded /raundid/

t after unvoiced consonants: /f/ /k/ /p/ /s/ t[/[

clapped /klæpt/ brushed /brnʃt/

laughed /la:ft/ wished /wɪʃt/

d in other cases

earned /s:nd/ carried /kær ɪd/

changed /tseindzd/ harmed /ha:md/

Pronounce the past form of these regular	verbs paying attention to the -
ed suffix.	

1. study
2. judge
3. listen
4. miss
5. work
6. answer
7. test
8. invent
9. research
10. enjoy

-e suffix
Sometimes the addition of the -e suffix to a noun to form a verb changes
the quality both of the vowels sound and of the final -th:
a bath /bɑːθ/ to bathe /beɪð/
a breath /breθ/ to breathe /brɪːð/

<u>Homographs</u>
Some examples of homographs: to lead /lɪːd/ lead /led/
to read /rɪːd/ read /red/
to live /liv/ live /laɪv/
The sound may also change according to the where the stress is on the word:
to record /rɪˈkɔːd/ record /ˈrekɔːd/
to present /pri'zent/ present /'preznt/

Homophones

Some examples of homophones:
son / sun /sʌn/
allowed / aloud /əlɑʊd/
minor / miner /maɪnə/
Exercise
Use both words in suitable contex

ts.

- 1. whose / who"s
- 2. there / their
- 3. sale / sail
- 4. rode / road
- 5. steel / steal
- 6. right / write
- 7. hear / here
- 8. rain / reign



10. by / buy

Silent letters

 a) Some consonants are written but not pronounced. This is either because they were once pronounced (knock) or come from a foreign language (psychology).

Initial position

cz - czar

kn - knock, knee, knight, knife

gn - gnat, gnaw, gnome

pn – pneumonia

ps - psychology, psychiatry, pseudo

pt - Ptolemy

wr – write, wrong, wring, wrist

wh - who, whom, whose, whole

Final position

-mb – lamb, climb, thumb

-ng - king, thing, song, wing

-gm – paradigm, diaphragm

-gn – sign, reign, foreign, resign (but signature, resignation)

-mn - condemn, autumn, column

-pt – receipt (but reception)

Other positions

doubt muscle castle whistle isle viscount sword Norwich

b) Sometimes vowels are written but not pronounced. Some examples:

Government family chocolate garden reason evil

Exercise

Mark the silent letters in the following words.

- 1. answer 6. castle 11. subtle 16. island
- 2. Greenwich 7. design 12. vegetable 17. mustn"t
- 3. interest 8. know 13. generous 18. Wednesday
- 4. restaurant 9. comfortable 14. psychosis 19. bomb
- 5. written 10. honest 15. cupboard 20. Hoped

STRESS PATTERNS IN WORDS

In Italian, a syllable-timed language, uniform stress is given to different syllables. English, on the contrary, is a stress-timed language in which there exists a distinction between strong (toniche) and weak (atone) syllables.

Syllable division

A syllable consists of a vowel sound or a vowel sound + consonant(s). The system for syllable division is generally a phonetic one. Most words have the same number of syllables in the written form as in the pronunciation. However, there are a few rules to help divide words up into syllables.

a) Each syllable has only one vowel sound. When a consonant separates two vowels, divide the word after the first vowel and before the consonant:

stu-dent re-sult ex-a-mine

c) When the vowel is at the end of a syllable, it has a long sound, called an open syllable:

May be-low an-ec-dote

d) When the vowel is not at the end of a syllable, it has a short sound, called a closed syllable:

Mad sub-ject con-vent

- e) Syllables are divided between doubled consonants, unless the doubled consonant is part of a syllable that is a base word:

 din-ner swim-ming tell-er
- e) Monosyllabic prefixes and suffixes are not divided:

il-le-gal un-com-mon

gov-ern-ment cou -ra-geous

f) Plurisyllabic prefixes and suffixes are divided:

an-ti-war un-der-take

vel-o-ci-ty hy-po-the-ti-cal

Exercise

Divide the following words into syllables.

- 1. mirror
- 2. sunshine
- 3. poem
- 4. wonderful
- 5. calendar
- 6. global
- 7. fitness
- 8. December

Stress Patterns

The strong or primary stress on one syllable has the effect of weakening the pronunciation of the secondary syllables. It is therefore important to be able to determine the stress pattern of words.

Symbols used to indicate stress:

- the following syllable has primary stress
- the following syllable has secondary stress

Suffixes

Suffixes do not generally have primary stress.

Compare:

'age /eɪdʒ/ 'courage /kʌrɪdʒ /

to be 'able /eɪbl/ 'capable /keɪpəbl/

'ate /eɪt/ 'graduate (n)/grædʒบət /

'full /fʊl/ beautiful /bjuːtɪfl/

'less /les/ 'hopeless /həupləs/

In only a few cases the main stress falls on the suffix, generally with suffixes of foreign, especially French, origin.

Some examples are:

- -oo kangar'oo -elle gaz'elle
- -ee employ ee -ette cigar ette
- -eer engine 'eer -ese Chin 'ese

Some suffixes determine the position of the primary stress.

The following suffixes	determine t	the primary	stress o	n the s	syllable
preceding the suffix:					

Nouns

-ity, -ety cap 'acity oppor' tunity

Note the shift in stress: 'public pub'licity

'social soc'iety

to 'vary var'iety

-ion dis'cussion at'tention

Note the shift in stress: to pre pare preparation

to pro'nounce pronunci'ation

to 'realise realis'ation

-ian am'phibian phy'sician

Note the shift in stress: hu'manity humani'tarian

'library lib'rarian

'history his'torian

-ics 'physics 'ethics mathe matics

Verbs

-ify, -ish to 'magnify to a bolish

Note the shift in stress: 'person to pers'onify

Exercise 23 Mark the primary stress in the following words.

- 1. village 6. passion
- 2. society 7. anxiety
- 3. talkative 8. universal
- 4. suffragette 9. career
- 5. classify 10. economics

Adjectives

-ic, -ible, -igible his toric in visible 'eligible

Note the shift in stress: e'conomy eco'nomic

to ne glect 'negligible

-ious, -eous, -uous 'glorious ar boreous con tinuous

-ial, -ual 'social 'usual

Other suffixes do not alter the stress pattern of the word.

- -able 'comfort 'comfortable
- -cy 'vacant 'vacancy
- -dom 'king 'kingdom
- -er/-or 'visit 'visitor
- -ful 'wonder 'wonderful

- -ish (adj.) 'baby 'babyish
- -ism to 'criticise 'criticism
- -ize/-ise (v.) e conomy to e conomize
- -less 'care 'careless
- -ly (adv.) 'rapid 'rapidly
- -man (n.) po'lice po'liceman
- -ment to 'govern 'government
- -ship 'owner 'ownership
- -ty 'unit 'unity
- -y to in'quire in'quiry

Exercise

Mark the shift in stress in the following pairs of words.

1. economy economics

2. experiment experimental

3. history historian

4. nation nationality

5. philosophy philosophical

6. psychiatry psychiatric

7. science scientific

8. examine examination

9. idiotic idiotic

10. demonstrate demonstration

Prefixes

Two-syllable words with no prefix usually have the primary stress on the first syllable: 'follow 'carry 'govern 'cancel

Two-syllable words with a separable prefix (often written with a hyphen) have equal stress on the prefix and the main word:

'ex-'wife 'pre-'book 're-'write 'self-'help

Two-syllable VERBS with an inseparable prefix generally have the primary stress on the second syllable:

to ex'plain to pre'sent to de'ny to pro'duce

Two-syllable NOUNS with an inseparable prefix generally have the primary stress on the first syllable: 'expert 'present 'deluge 'proverb

Some exceptions to this are:

ad'vice de'fence ex'cuse re'lief

The stress in three-syllable words can vary from word to word.

Compare:

'telegraph re'moval 'vegetable de'cision

If the prefix - separable or inseparable - is bisyllabic, there is secondary stress on the first syllable of the prefix and primary stress on the third syllable:

under stand inter vene super sede over ride

Exercise

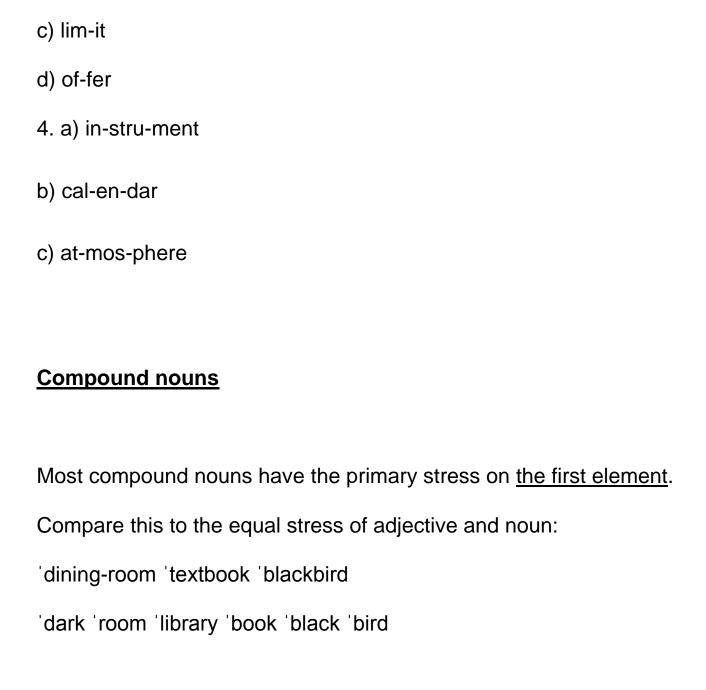
Mark the primary stress in the following pairs of nouns and verbs.

- 1. to conduct conduct
- 2. to desert desert
- 3. to present present
- 4. to subject subject
- 5. to conflict conflict
- 6. to decrease decrease
- 7. to object object
- 8. to produce produce
- 9. to suspect suspect
- 10. to rebel rebel

Exercise

Find the word in each group that the primary stress located on the different syllable from the other three.

- 1. a) con-fi-dent
- b) del-i-cate
- c) po-et-ic
- d) sen-si-tive
- 2. a) ad-mi-ra-ble
- b) app-ro-priate
- c) com-pli-cated
- d)nec-es-sar-y
- 3. a) or-i-gin
- b) oc-cur



Compound adjectives

The stress generally falls on the second element with the —ed participle and -ing participle: bad-'tempered old-'fashioned good-'looking However, if one of the elements of the compound adjective is a noun, stress will fall on the noun, even if it is the first element: 'law-abiding 'record-breaking

Compound verbs

The stress generally falls on the second element:

out'run over'rate under'line

Exercise

Mark the stress on the following words.

1. blackboard	6. train-spotting
2. mobile phone	7. football
3. well-dressed	8. bus stop
4. highlight	9. out-dated
5. swimming pool	10. over-ripe
<u>Exercise</u>	
Rewrite the sentences	forming compound adjectives and mark the
primary stress.	
1. The letter was writte	en by hand The letter was
2. We grew the vegeta	bles at home. The vegetables are
3. We went on holiday	at the last minute. It was a
holid	day.
4. Jane works very har	rd. Jane is
5. Tom looks really go	od. Tom is

STRESS PATTERNS IN PHRASES

Function words such as prepositions, conjunctions, pronouns, determiners, and auxiliary verbs are generally weaker in stress within a sentence.

at /ət/ that ðət

for fə as əz

from frem than ðen

of əv and ən, n

to tə but bət

per pə or ə, ər

he hɪ his ɪz

him Im/, /əm her hə, /ə/

her hə our a:

us əs your jə

them ðəm a, an ə, ən

some səm the ðə, ðɪ:/

Exercise

Underline the weak function words in the following sentences.

- 1. I'd love a cup of tea.
- 2. When are you going to Spain?
- 3. He goes to the cinema three or four times a month.
- 4. I'll have some bread and butter, please.
- 5. We'd rather stay at home than go to the restaurant.
- 6. You"ll have to study harder if you want to pass the exam.
- 7. They drove at 50 kilometres per hour.
- 8. Did you give him the books?
- 9. He said that he"d go home as soon as possible.
- 10. I told them they were going to fall.

Articles

a, an -

The indefinite article a is reduced to /ə/ before consonants (or consonant sounds): a book a table a university a one-year plan It becomes an ən before vowels (or vowel sounds):

an apple an event an hour an heir

the - The definite article the is reduced to /ðə/ before consonants (or consonant sounds): the mother the table the university the one-year plan

It is pronounced /ði:/ before vowels (or vowel sounds):

the apple the event the hour the heir

_					
⊢	V	er	\sim 1	C	Δ
ᆫ	ΛC	7 I Y	U	O	$ldsymbol{\Box}$

Write a or an in the following sentences.

1. It took me hour to write the letter.
2. Would you like orange?
3. She is Anglo-Italian.
4. It is European law.
5. Jane is university student.
6. I hope to study for M.A. degree next year.
7. It was one-hour lesson.
8. The concert was extraordinary event.
9. You"ll have to have X-ray for that leg.
10. It was enjoyable evening.

Exercise

Say whether the following pronunciation of the definite article is
/ðə/ or /ðɪː/ .
1 heir.
2 universe.
3 apple.
4 ugly house.
5 U.S.A.
6 hotel.
7 historian.
8 jewels.
9 hour-glass
10 one-man band.

Modal auxiliary verbs

Modal auxiliary verbs have

weak pronunciation in the affirmative and interrogative:

I can /kn/ 'go.

They could /kəd/ 'come.

Should/səd/ he 'leave?

They have a strong form:

(a) in the negative with the contracted not:

I 'can"t /kg:nt/ go.

They 'won"t / wount / come.

(b) in tag questions and short answers:

He can"t swim, 'can /kæn/ he? Yes he 'can /kæn/.

Exercise

Underline the weak function words in the following sentences.

- 1. He could have told you if you had asked.
- 2. Don"t you want to know?
- 3. I should have known he was joking.
- 4. She can apply for the job, can"t she?
- 5. Who does she think she is?
- 6. He was at school when the fire broke out.

Exercise

Mark the stressed syllables in the following passages.

Practise reading them with attention to the weak forms (auxiliaries, articles, pronouns, prepositions etc).

TEXT 1

Of all the changes that swept over Europe in the seventeenth and centuries, the most widely influential eighteenth was an epistemological transformation that we call the "scientific revolution". In the popular mind, this revolution is associated with natural science and technological change, but the scientific revolution was, in reality, a series of changes in the structure of European thought itself: systematic doubt, empirical and sensory verification, the abstraction of human knowledge into separate sciences, and the view that the world functions like a machine. These changes greatly altered the human experience of every other aspect of life. This modification in world view can also be charted in painting, sculpture and architecture, where it can be seen that people are looking at the world very differently.

ENGLISH WORDS USED IN ITALIAN

In the last century the Italian language has adopted and adapted a wide range of English words, especially when they refer to new products and trends. For example, browser, welfare, and pullover, to name but a few. Other influences concern direct translations from English into Italian: la maggioranza silenziosa (the silent majority) and le pubbliche relazioni (public relations). Another way to handle foreign words is to adapt the spelling to Italian, so we have ferribot (ferryboat) and nailon (nylon), or else Italian suffixes are added to an English word, such as stoppare and bluffare. There is also a tendency to coin English words that do not in fact exist in English (called "false anglicisms"), such as footing (jogging) and fiction (TV series).

Connected Speech

When people talk normally, their words blend together and change in predictable ways. This is not sloppy, uneducated, or bad. It's just normal. It happens when people speak casually, but also when they speak formally. In short, *all* speech is connected speech.

Here are some changes that happen in connected speech:

Contractions and blends:

Both of these are actually the same thing—a two-word sequence that blends together into one unit. If the two-word combination is not normally *written* as one word, we just call it a blend. But if the two-word combination has a special written form with an apostrophe, we call it a contraction:

Linking: In normal speech, words are not pronounced as separate, individual units. The last sound of one word is often linked to or blended with the first sound of the next word.

What sounds?	What happens?	Examples
/iy/ + V → /ey/ + V → /ay/ + V → /oy/ + V →	Add a /y/ glide between the words as a link to the following vowel.	I'll b <u>e a</u> ble to cr <u>ea</u> te m <u>y o</u> wn to <u>y a</u> irplane.
/ _{UW} / + V → / _{OW} / + V → / _{aW} / + V →	Add a /w/ glide between the words as a link to the following vowel.	St <u>ua</u> rt is no <u>w i</u> n Ne <u>w O</u> rleans.
VC + V →	Word-final consonant links to the following vowel.	That dog is black and white.
VCC + V →	The last consonant in a cluster links to the following vowel.	I foun <u>d o</u> ut that Bob broke his lef <u>t</u> arm.
C+C →	Two identical consonants blend into one longer consonant.	The doctors found a quick cure in a short time.
C ₁ + C ₂ →	A stop followed by a stop or affricate: The first stop is not released and the two blend.	My pet cat is sitting by the blackboard.

Assimilation

Sometimes a sound becomes more similar to a sound that comes before or after it.

This makes the words easier to pronounce. Every language has some kind of assimilation, although not all languages use assimilation in exactly the same way.

- **Progressive assimilation:** The first sound causes the second sound to change.
- -s and -ed endings: The endings are voiced after a voiced sound, voiceless after a voiceless sound. (See Chapter 11 for more details.)
- **Regressive assimilation:** The second sound causes the first sound to change.
- have to "hafta" has to "hasta" used to "usta"
- good boy at peace pet kitten in pain in May in California in good health

- Coalescent assimilation: Two sounds blend together to make a new sound.
- Palatalization: Don't you think so? I'll miss you. Does your mother know?

Is that your dog? Did you study? She needs your help.

• Deletion:

In normal speech, a sound may disappear or not be clearly pronounced in certain contexts.

(Not just anyplace—only in these environments.) This is also called "omission."

- Loss of /t/: V + nt + V □ □ VnV winter /wIn´r/ Toronto /t´rAnow/
- Simplification of consonant clusters: In final clusters of three or four consonants, a *middle* consonant is sometimes dropped.
 (Never the first or last consonant.)

- The desks sit side by side. five-sixths facts months
 /ss/ /ks/ /ns/
- East side blind man old boyfriend
 /ss/ /nm/ /lb/
- Sounds are deleted in some very common words and expressions:
- going to gonna want to wanna should have shoulda
- because 'cause about 'bout around 'round
- February /fEbyuwEriy/ governor /g√v´n´r/ surprise /s´prayz/
- Sometimes entire unstressed syllables are omitted (but only in particular words--not just anyplace.) This is called "syncope" by people who like big words.

chocolate vegetable restaurant family

- **Epenthesis:** In very few cases, an extra syllable is added to make a word easier to pronounce. The most common example is when an extra vowel // is added before an -ed or -s word ending.
- Word Stress: The syllable in a word that is longer, louder, and higher in pitch than others. If a word has more than one syllable, one of them is stressed the most. It's very important to get the stress in the right place. Without correct stress, words may not be understood.
- The syllables of a word may have one of three degrees of stress:
- Strongly stressed (also called primary stress)
- Lightly stressed (also called secondary stress)
- Unstressed (also called tertiary stress)

Mark the primary and secondary stress (if any) in these words:

ten nis re li a ble pro nounce or gan i za tion re pre sen ta tive pro nun ci a tion

There are rules that can often predict where the stress will fall in a word. They take into account the historical origin of a word, affixation, and the word's grammatical function in a sentence. Sometimes a change in word stress indicates a change in the part of speech:

Noun	Verb
REcord	reCORD
PROgress	proGRESS
EXploit	exPLOIT
PREsent	preSENT
PERvert	perVERT
PERmit	permit

• Compound nouns are usually stressed on the first part of the compound.

BLACKbird OVERflow

- Compound verbs are usually stressed on the last part of the compound.
- Vowel sounds are often changed (reduced) in unstressed syllables.
- It's important for unstressed syllables to be *much* weaker than stressed syllables. This helps the listener recognize the whole pattern of the word.

Sentence Stress: The syllable in a sentence or clause that receives the most emphasis or prominence.

- Sentence stress is often used to emphasize a word to emphasize it or to show that it is new information.
- Content words: Words that carry information. They have meaning in themselves.
- **Function words**: Words that show the grammatical relationships between other words, but don't have much meaning in themselves.
- In a sentence, content words tend to be stressed, and function words tend not to be stressed.

Content Words	Function Words
Nouns Main verbs Adjectives Possessive pronouns Demonstrative pronouns Interrogatives (question words) Not and negative contractions Adverbs Adverbial particles	Articles Auxiliary verbs Personal pronouns Possessive adjectives Demonstrative adjectives Prepositions conjunctions

Rhythm: The regular, patterned beat of stressed and unstressed syllables and pauses in an utterance.

• English is a stress-timed language. This means that the time between stressed syllables

remains fairly steady, and extra syllables have to crowd in between the stressed syllables. Each syllable does *not* last the same length of time. English has a rhythm like this:

NNNNNNN

 Many other languages are syllable-timed. This means that each syllable takes about the same amount of time. These languages have a very regular rhythm, like this:

NNNN NNN

• Listen to the rhythm of these sentences. They all have three main stressed syllables and take about the same amount of time to say, even though some have many more syllables.

MICE EAT CHEESE.

The MICE EAT the CHEESE.

The MICE will have EATen the CHEESE.

The MICE might have been EATing the CHEESE.

 For the rhythm of English to sound natural, the pattern of stressed and unstressed syllables must be right.

All the things we've read about in this chapter work together to promote the regularity of English rhythm.

Stressed syllables stand out. Unstressed syllables squeeze in between the stressed syllables, and sound changes make their articulation easier so that regular timing can be maintained. This produces the "music" of English.

Allophones of Voiceless Stops in English

(Changes in the Pronunciation of the Phonemes /p/, /t/, and /k/)

/p/

Ph

When /p/ comes at the beginning of a word or a stressed syllable, it is pronounced with a puff of air. We say it is aspirated.

pot panic pretty appeal

p

When /p/ comes after /s/, it doesn't have a puff of air. We say it is unaspirated.

spot special spring

p°

When /p/ comes at the end of a word, we often don't pronounce it completely. Our lips come together, but they don't open.

Stop lip Philip

/t/

th

When /t/ comes at the beginning of a word or a stressed syllable, it is pronounced with a puff of air. We say it is aspirated.

Top terrible train attend

t

When /t/ comes after /s/, it doesn't have a puff of air. We say it is unaspirated.

Stop stylish string

t°

When /t/ comes at the end of a word, we often don't pronounce it completely. Our tongue blocks the air in our mouth, but it doesn't open afterwards.

Cat bought rabbit

When /t/ comes between vowels, after a stressed syllable, it becomes voiced. It almost sounds like /d/.

better little a lot of

/ When /t/ comes before an unstressed syllable /'n/, it is often pronounced by pressing the vocal cords together, almost like the beginning of a cough. (We call this a glottal stop.)

kitten mountain Martin

tſ

When /t/ comes before /r/ in a stressed syllable, it can sound almost like /tʃ/. It is pronounced with the tongue farther back and with the lips a little rounded, getting ready for the /r/ sound. tree true intrigue

/k/
kh
When /k/ comes at the beginning of a word or a stressed syllable, it is pronounced with a puff of air. We say it is aspirated.
Cool kettle cream account
K
When /k/ comes after /s/, it doesn't have a puff of air. We say it is unaspirated.
school sky scream
K°

When /k/ comes at the end of a word, we often don't pronounce it completely. The back of the tongue comes up and blocks off the air coming through the mouth, but it doesn't open again.

Consonant Clusters

Consonant clusters are groups of two or more consonant sounds in a row.

stop strong desk desks explain cluster

Consonant clusters can be difficult for learners from many language backgrounds. They often cope by:

- Simplifying the consonant clusters by omitting some sounds:
 desk /dEs/
- Adding extra vowels to separate the consonants: sport /sUport/ or /Esport/

These errors can cause problems in being understood.

Vowel sounds are sometimes changed by the sounds around them.

• Length:

Vowels are usually shorter in duration before voiceless sounds and longer before voiced sounds. They're longest of all when they come at the end of a word.

Compare:

bed / bet bead / beat man / mast hill / hit

• /r/ coloring:

Some vowel contrasts are neutralized before /r/. Look at these words:

bead / bid / beer "Bead" /biyd/ and "bid" /bld/ are separate words with different vowel sounds.

But we could pronounce "beer" either /blr/ or /biyr/ without changing its meaning.

load / laud / lord In the same way, "load" /lowd/ and "laud" /lçd/ have contrasting vowels, but with "lord," we could say /lçrd/ or /lowrd/ without changing the meaning.

• /l/ coloring:

To a lesser extent, vowel contrasts before /l/ are also sometimes weaker. Examples:

heal / hill / he'll she'll we'll I'll you'll they'll

Nasal coloring:

Vowels followed by a nasal sound also tend to be nasalized.

Examples:

seem seen sing can can't

- The contrast between the words "can" and "can't" is often especially troublesome.
- "Can't" is usually stressed. It sounds like /kQnt/ or /kQn//, with a clear /Q/ sound.

I can't go with you. Who can't afford a new car?

• "Can" is usually unstressed. It often sounds like /k'n/ or /kn/, with a reduced vowel.

I can go with you. Who can afford a new car?

• But when "can" is alone, with no verb after it, it's usually stressed.

Yes, I can. I can tomorrow, but not right now.

Phonetic Rules:

- I. Here are the most commonly used rules:
- 1. Every syllable in every word must contain a vowel. The vowels are: a, e, i, o, u, and y (although y is a consonant when at the beginning of a word).
- 2. When "c" is followed by "e, i, or y," it usually has the soft sound of "s." Example: city.
- 3. When "g" is followed by "e, i, or y," it usually has the soft sound of "j." Example: gem.
- 4. A consonant digraph is two or more consonants that are grouped together and represent a single sound. Here are

consonant digraphs you should know: wh (what), sh (shout), wr (write), kn (know), th (that), ch (watch), ph (laugh), tch (watch), gh (laugh), ng (ring).

- 5. When a syllable ends in a consonant and has only one vowel, that vowel is short. Examples: tap, bed, wish, lock, bug.
- 6. When a syllable ends in a silent "e," the vowel that comes before the silent "e" is long. Examples: take, gene, bite, hope, fuse.
- 7. When a syllable has two vowels together, the first vowel is usually long and the second vowel is silent. Example: stain.
- 8. When a syllable ends in a vowel and is the only vowel, that vowel is usually long. Examples: ba/ker, be/come, bi/sect, go/ing, fu/ture, my/self.

9. When a vowel is followed by "r" in the same syllable, the vowel is neither long nor short. Examples: charm, term, shirt, corn, surf.

Voiced Consonants?

VS

Unvoiced Consonants?

A consonant is a sound that causes two points of your mouth to come into contact, in three locations—the lips, the tip of the tongue, and the throat. A consonant can either be unvoiced

(whispered) or voiced (spoken), and it can appear at the beginning, middle, or end of a word. You'll notice that for some categories, a particular sound doesn't exist in English.

Initial		Medial		Final	
Unvoiced	Voiced	Unvoiced	Voiced	Unvoiced	Voiced

<u>b</u> ury	apple	a <u>b</u> le	mop	mo <u>b</u>
<u>v</u> ery	a <u>i</u> raid	a <u>v</u> oid	0 <u>II</u>	o <u>f</u>
<u>Z</u> 00	races	raises	fa <u>c</u> e	pha <u>s</u> e
	pre <u>ss</u> ure	plea <u>s</u> ure	cru <u>sh</u>	garage
<u>d</u> o	petal	pe <u>d</u> al	no <u>t</u>	no <u>d</u>
joke	gau <u>ch</u> o	gouger	ri <u>ch</u>	ri <u>d</u> ge
<u>th</u> at	e <u>th</u> er	ei <u>th</u> er	too <u>th</u>	smoo <u>th</u>
gum	bi <u>ck</u> er	bigger	pi <u>ck</u>	pig
	a <u>cc</u> ent	e <u>x</u> it	ta <u>x</u>	tags
yes		player		day
<u>w</u> ool		sho <u>w</u> er		no <u>w</u>
	a <u>h</u> ead			
<u>l</u> ate		co <u>ll</u> ect		towe <u>l</u>
<u>r</u> ate		co <u>rr</u> ect		towe <u>r</u>
<u>m</u> e		swi <u>mm</u> er		sa <u>m</u> e
<u>n</u> ext		co <u>nn</u> ect		ma <u>n</u>
		fi <u>ng</u> er		ri <u>ng</u>
	<u>very</u> <u>zoo</u> <u>do</u> <u>joke</u> <u>that</u> <u>gum</u> <u>yes</u> <u>wool</u> <u>late</u> <u>rate</u> <u>me</u>	very afraid zoo races pressure do do petal joke gaucho that ether gum bicker accent yes wool ahead late rate me me	very afraid avoid zoo races raises pressure pleasure do petal pedal joke gaucho gouger that ether either gum bicker bigger accent exit yes player wool shower ahead collect rate correct me swimmer next connect	very afraid avoid off zoo races raises face pressure pleasure crush do petal pedal not joke gaucho gouger rich that ether either tooth gum bicker bigger pick accent exit tax yes player wool shower ahead late collect rate correct me swimmer next connect

Rules:

- 1- [t] and [n] are so close in the mouth that the [t] can simply disappear.
- 1. interview innerview
- 2. interface innerface
- 3. Internet innernet
- 4. interstate innerstate
- 5. interrupt innerrupt
- 6. interfere innerfere
- 1. interactive inneractive
- 8. international innernational
- 9. advantage ədvæn'j
- 10. percentage percen'j

11. twenty

2. Finish the printing

3. She's at the international center.

twenny

12. printout prinnout of	or prindout	
13. printer prinner o	or prinder	
14. winter winner or	winder	
15. enter enner or e	ender	
2- Read the following sentences out loud.		
1.He had a great interview.		
Try to enter the information		
1. Turn the printer on.		

Presidential Candidates' Debate

prezədənt təmärrou näidiz əxpectədiniz Thə steidəv thə prəpouz fedrəl səbzədeez help yoonyən mesəi tə lou(w)inkəm fæmleez ouvrkəm thə sou-käld dijədəl dəväid. Izidə n əpropree(y)ət yusəv gəvrmnt fənz tə hændæot kəmpyudrz ən preväid innernet ækses te thouz hu cæn(d)eford it; end if nät, why nät. Will begin with Mr. Keez. I think this iz enether keis wheer pälətishənz try də jəmpän thə bændwægən əv səmthing thæt's going än in thee(y) əcänəmee, sou evreebədeez gənnə think that they ækchalee hæv samthing to do with the rozalt when they dont. There nou need fr this. Wiral reddy seeing acot ther prepouzelz fr the distrebyushen ev free PeeCees, nät beis dän səm pälətishən meiking ə judgment ən spending tæxpeiyer menee, bet beis dän the self-intrst ev thouz hu(w) är involvd ine nyu world, a nyu world an which p'rtisapeishan iz tha kee da

präfit— ənd in which ther iz ækchəlee ə sträng insentiv əməng thouz hu prtisəpeidin thə präivət sektər tə giv æksess tə indəvijəls sou thæt they c'n impruv their äpərtyunədeez fr präfit, fr infərmeishn shering. Thæts whəts älredee bin going än—it will kəntinyu. Ther iz nou need fr thə gəvərmənt tə prətend thæt it needs tə teik leedership hir. I think thæts jəst pəlidəkəl päsjuring.

Senədər Mə(k)kein.

I bəleev th't wee du hæv ə präbləm. æn thædiz thət thɛrizə growing gæp bətween thə hævz ənd hæv-näts in əmɛrəkə, thouz thədr ɛibl də tɛik pärdin this infərmeishn teknäləjee ən thouz th't hævnt. Wee took ə mɛijər step forwərd when wee dəsaidəd də wäi(y)r evree skool ən lybrɛree in əmerikə tə thee(y)innərnet. Thætsə güd prougrəm. Wee hæv tə hæv step tu, three, ən four, which meenz güd əkwipmənt, güd teechərz ənd güd clæssroomz. No, I wüdn du(w)it d'rektlee. Bət thɛrz läts

ev weiz th'chyu ken inkerej korpereishnz, who in their own self-intrest, wüd wänt te prevaid... wüd reseev tæks benefits, wüd reseev kredit, end mɛny ether weiz fr beeing invelvd in the skoolz, in epgreiding the kwäledee ev ekwipment th't thei hæv, the kwäledee ev the styudents end thɛrby prevaiding e mechneeded well-treind werkfors.

Thæng kyu. Mr. Forbz.

Key:

The president tomorrow night is expected in his State of the Union message to propose federal subsidies to help low- income families overcome the so-called digital divide. Is it an appropriate use of government funds to hand out computers and provide Internet access to those who can't afford it, and if not, why not? We'll begin with Mr. Keyes. "I think this is another case where politicians try to jump on the bandwagon of something that's going on in the economy, so everybody's gonna think that they actually have something to do with the result when they don't. There's no need for this. We're already seeing out there proposals for the distribution of free PCs, not based on some politician making a judgment and spending taxpayer money, but based on the self-interest of those who are involved in a new world, a new world in which participation is the key to profit—and in which there is actually a strong incentive among those who participate on the private sector to give access to individuals so that they can improve their opportunities for profit, for information sharing. That's what's already been going on—it will continue. There is no need for the government to pretend that it needs to take leadership here. I think that's just political posturing." Senator McCain. "I believe that we do have a problem. And that is that there is a growing gap between the haves and have-nots in America. those that are able to take part in this information technology and those that haven't. We took a major step forward when we decided to wire every school and library in

America to the Internet. That's a good program. We have to have step two, three, and four, which means good equipment, good teachers, and good classrooms. No, I wouldn't do it directly. But there's lots of ways that you can encourage corporations, who in their own self-interest, would want to provide ... would receive tax benefits, would receive credit, and many other ways for being involved in the schools, in upgrading the quality of equipment that they have, the quality of the students, and thereby providing a much-needed well-trained workforce." Thank you. Mr. Forbes.

Assimilation

The adjustment of the articulation of words as a consequence of their immediate spoken environment can happen in various ways. When an adjustment is made to accommodate an actual phonetic feature in the immediate environment, that process of simplification is known as assimilation. The adjustment makes the phoneme more similar to its environment. The adjustment of the / n / in ten to the velar articulation of the / g / in green is a case of assimilation: the / n / becomes velar / N / which shares an identical feature with the velar articulation of / g /. Similarly, the / n / of green becomes bilabial / m / in anticipation of the bilabial articulation of / b / in bottles.

/ n / in word-final position regularly adjusts itself in English to the anticipated point of articulation of the consonant at the beginning of the next word. You might have noticed what also happens to the / n / of one and nine in the song. Think of common phrases with the prepositions on and in which are followed by words beginning with bilabial / p, b, m / and you will notice that the / n / easily adjusts itself to / m / in anticipation. on purpose Qm "p3:p@s in person Im "p3:sn

Now listen to and transcribe

on paper _____ in print ____ on principle ____ in prison

on behalf ____ in between ____ on balance ____ in

Bristol

on Monday in March on my behalf in
medicine
Notice that in cases like on Monday and in March, there is a
'double' / m / - a single articulation of double length to account
for the final / m / of on and in and the initial / m / of the following
word. Otherwise it would sound like om unday im arch which
does not sound typical of native English speech.
In a parallel way, word-final / n / easily adjusts to a velar / N / in
anticipation of following velar consonants / k, g /. on call QN
"kO:l in case IN "kels
Listen and transcribe
on course in keeping on guard in
Gloucester on grass in goal
An identical case of assimilation occurs in the prefixes un- and in-
(whether it means 'in' or negative). Listen and transcribe.

unpleasant Vm"plEzn=t input "ImpUt unbalanced
inbuilt unmade inmate unkind
incorrect ungrateful ingratitude
Now consider these phrases and note the assimilation process:
10p "tEm "pi: 10 quid "tEN "kwld £1 one go
fine mess fine grain gun boat gun
carrier hen party hen coop ten pin
bowling 7 cases
Assimilation of final / n / is common in many other languages,
including Latin, where the bilabial assimilation was actually
expressed in the orthography: in + possibilis > impossibilis. As a
result we have spellings like impossible, improper, impress,
imbalance, imbecile, immense, immeasurable in English.
* Assimilation of final / d / in English is almost parallel to that of / n

/, but this is not matched in many other languages. The / d /

becomes bilabial / b / - retaining its voicing – before bilabial / p, b, m /, and becomes velar / g / before velar / k, g /. (This is true of 3most English accents, though West Walian English is an exception.)

Notice the process i	n bad penny "bab pe	eni red kite reg "kait
good boy	_ bad girl	red meat
good gracious		

Notice it too in the greetings: good morning "gub "mo:nin goodbye "gub "bai

Notice that in cases like good boy, goodbye, there is a 'double' / b / - a single articulation of double length to account for the final /

b / in / gub / and the initial / b / of the following word, likewise, a 'double' / g / in bad girl.

But final / d / also becomes post-alveolar / d³ / before palatal / j /.

Notice the process in a bad year

Assimilation of final / t /

In English used to be exactly parallel to assimilation of final / d /, producing / p / and / k / - retaining voicelessness – before bilabial / b, d, m / and velar / k, g /. As in hot potato and white cross

But a new tendency has developed and that is to articulate final / t / as a glottal stop [?]. This produces hot as ["ho?] and white as ["wai?], which eliminates any possibility of assimilation. Listen to the two possibilities in the following phrases:

hot [?] potato

hot / p / potato

white [?] cross

white / k / cross
not [?] bad
not / p / bad
eight [?] goals
eight / k / goals
Final / s / and / z / assimilate to post-alveolar / ? / and / Z / in the
face of post-alveolar / ?, t?, dZ / and palatal / j /, Consider
phrases with this / DIs / and these / di:z /
this chair these chairs this job
these jobs this year these years
Notice that in cases like this shop, bus shelter, there
is a 'double' / ? / to account for the /?/ assimilation at the end of
the first word and the /?/ at the beginning of the following word.

Historically, this post-alveolar assimilation of / s, z / before / j / accounts for the /?, Z / in words like pressure, mission and pleasure, vision and, more recently, in issue, usual. It also accounts for the /?/ at the beginning of words like sure, sugar. Notice also how / s / readily assimilates to /?/ before the / t/ / in words like mischief.

Elision

A second type of simplification involves not an adjustment to a sound, but its complete removal. This is known as elision; the missing sound is said to have been elided.

Take the name Christmas as an example; it used to be a compound consisting of Christ and mass, but in the course of time, the / t / of the first word has been elided, and nowadays nobody would normally pronounce the name witha / t /. Similarly, the word handkerchief used to be a compound consisting of hand and kerchief, but again in the course of time the / d / of the first word has been elided.

As it happens, elision mainly affects final / t, d / if they are preceded by a consonant – as in the cases above – and also

followed by a word beginning with a consonant – again, as in the cases above.

First of all, we will consider the elision of final /d/. Notice what has happened to the / d / in these other (formerly compound) words: handsome, sandwich, grandfather, grandchildren.

Notice too that as / d / is elided in grandparents, the preceding / n / is adjacent to a bilabial consonant and assimilates to / p / by becoming / m /:

Transcribe:
grandpa
grandmother
grandma
keeping a 'double' / m / for the assimilating / n / and the / m / of
the second part of the compound.
Transcribe
windmill
windbag
handset "hanset
landscape

bandstand
friendship
bend them
Now cases where / d / is preceded by / I /
old men
child protection
goldfish
fold them
Thus, / d / elision takes place if it is word-final, preceded by a
consonant and followed immediately by a word beginning with a

consonant (but with the above exceptions). It also takes place if

a suffix follows which begins with the right kind of consonant.

Thus / d / is eli	ded in friends, and	I may optionally be elident	ed in			
friendly.						
What about these words?						
friendship	blindness	childless				
worldly	handful	child's play				
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purposes.