

ENGLISH ALLOPHONIC BOOKLET

(revised to 2013)

Phoneme	Place	Manner	Voicing	Allophones + Position	Examples	Phonemic Transcription	Allophonic Transcription
/ b /	Bilabial	Stop (<i>plosive</i>)	Voiced	[b] Initial / medial [b̚] Unreleased in syllable-final position before a consonant [b̚] Final released (<i>when emphatic</i>)	‘back’ ‘absent’ ‘Where’s the club?’	/ bæk / / 'æbsənt / / weəz ðə klʌb /	[bæk̚] ['æb̚sənt̚] [weəz ðə k̚lʌb̚]
			Devoiced	[b̥] Before a voiceless consonant or silence	‘Bob took it’	/ bɒb tʊk ɪt /	[bɒb̥ t̚ʰʊk̚ ɪt̚]
*Note: ‘b’ is silent as in ‘climb’, ‘dumb’, ‘comb’, &c.							
/ d /	Alveolar	Stop (<i>plosive</i>)	Voiced	[d] Initial	‘Dame’	/ deɪm /	[deɪm]
				[d̚] Medial (<i>same as above in RP</i>)	‘lady’	/ 'leɪdɪ /	['leɪdɪ]
		Tap/Flap	Voiced	[ɾ] Intervocalic (in SAE)	‘lady’	/ 'leɪdɪ /	['leɪrɪ]
		Stop (<i>plosive</i>)	Voiced	[d̚] Final released (<i>when emphatic</i>)	‘Dad!’	/ dæd /	[dæd̚]
				[d̚] Unreleased in syllable-final position before a consonant	‘pad Thai’	/ ˌpæd 'taɪ/	[ˌp̚æd̚ t̚ʰaɪ]
				Devoiced	[d̥] Before a voiceless consonant or silence	‘Call the guard!’	/ kɔ:l ðə ɡɑ:d /
	Dental	Stop	Voiced	[d̪] Before dental consonants	‘add theirs’	/ æd ðeəz /	[æd̪ ðeəz̪]
/ g /	Velar	Stop (<i>plosive</i>)	Voiced	[g] Initial / medial	‘goal’	/ ɡəʊl /	[ɡəʊl]
				[g̚] Final released (<i>when emphatic</i>)	‘Such a pig!’	/ sʌtʃ ə pɪɡ /	[sʌtʃ ə p̚ʰɪɡ̚]
				[g̚] Unreleased in syllable-final position before a consonant	‘fig’	/ ˌfɪɡ 'tri:/	[ˌfɪɡ̚ t̚ɹi:]
		Devoiced	[ɡ̥] Before a voiceless consonant or silence	‘Pick the bag’	/ pɪk ðə bæɡ /	[p̚ʰɪk̚ ðə bæɡ̥]	
		Fricative	Voiced	[ɣ] Initial (<i>Old English</i>) / Intervocalic (<i>Spanish</i>)	‘ghost’ ‘lago’	/ ɡəʊst̚ - /lago/	[ɣəʊst̚] - [laɣə]
		Approximant	Voiced	[ɰ] Intervocalic (<i>Latin American Spanish</i>)	‘lago’	/ lago /	[laɰə]
	Palatal	Stop (<i>plosive</i>)	Voiced	[ɟ] Advanced before front closed vowels [ɟ̚]	‘give’ ‘get’	/ ɡɪv / / get /	[ɟɪv] - [ɟɪv̚] [ɟet̚] - [ɟet̚]
				[ɟ̚] Retracted before back open vowels	‘Greek gods’	/ ɡri:k ɡɒdz /	[ɟ̚ɹi:k̚ ɡɒd̚z̚]

Phoneme	Place	Manner	Voicing	Allophones + Position	Examples	Phonemic Transcription	Allophonic Transcription
/ p /	Bilabial	Stop (<i>plosive</i>)	Voiceless	[p ^h] Initial / medial / final + v (aspirated)	‘pin’	/ pɪn /	[p ^h ɪn]
				[p] After ‘s’ (unaspirated)	‘spot’	/ spɒt /	[spɒt̚]
				[p ⁿ] p + v + n (nasal)	‘open’	/ ˈəʊpən /	[ˈəʊp ⁿ ən]
				[p] Final released (when emphatic)	‘lap’	/ læp /	[læp]
				[p̚] Unreleased in syllable-final position before a consonant	‘pop corn’	/ pɒp kɔ:n/	[p ^h ɒp̚ k ^h ɔ:n]
				[ʔ] Glottal reinforcement	‘pop’	/ pɒp /	[p ^h ɒʔp]
/ t /	Alveolar	Stop (<i>plosive</i>)	Voiceless	[t ^h] Initial / medial / final + v (aspirated)	‘tin’	/ tɪn /	[t ^h ɪn]
				[t] After ‘s’ (unaspirated)	‘stool’	/ stu:l /	[stu:t̚]
				[t ⁿ] t + v + n (nasal)	‘eaten’	/ ˈi:tən /	[ˈi:ʔt ⁿ ən]
				[t] Final released (when emphatic)	‘Find it!’	/ faɪnd ɪt /	[faɪnd ɪt]
				[t̚] Unreleased in syllable-final position before a consonant	‘dot com’	/ ˌdɒt ˈkɒm/	[ˌdɒt̚ ˈk ^h ɒm]
				[ʔ] Glottal reinforcement/replacement	‘fighting’	/ ˈfaɪtɪŋ /	[ˈfaɪʔtɪŋ]
	Tap/Flap	Voiced		[r] Intervocalic (in SAE) [ɾ]	‘city’	/ ˈsɪtɪ /	[ˈsɪrɪ] - [ˈsɪʔɪ]
/ k /	Velar	Stop (<i>plosive</i>)	Voiceless	[k ^h] Initial / medial / final + v (aspirated)	‘cap’	/ kæp /	[k ^h æp]
				[k] After ‘s’ (unaspirated)	‘scum’	/ skʌm /	[skʌm]
				[k ⁿ] k + v + n (nasal)	‘bacon’	/ ˈbeɪkən /	[ˈbeɪk ⁿ ən]
				[k] Final released (when emphatic)	‘pack’	/ pæk /	[p ^h æk]
				[k̚] Unreleased syllable-final position before a consonant	‘lack for’	/ læk fɔ:/	[læk̚ fɔ:]
				[ʔ] Glottal reinforcement	‘doctor’	/ ˈdɒktə(r) /	[ˈdɒʔk̚t̚t̚ ^h ə]
	Velar	Stop	Voiceless	[ɰ] Advanced before close vowels [c]	‘key’	/ ki: /	[ɰ ^h i:] - [c ^h i:]
	Palatal			[ɰ] Retracted before open vowels	‘car’	/ kɑ: /	[ɰ ^h ɑ:]
/ m /	Bilabial	Nasal	Voiced	[m] Initial / medial / final	‘cam’	/ kæm /	[k ^h æm]
	Labiodental	Nasal	Voiced	[ɱ] Medial before –f	‘comfortable’	/ ˈkʌmfətəbl /	[ˈk ^h ʌɱfətəbl]
	Bilabial	Nasal	Voiced	[ɱ] Final syllabic	‘bottom’	/ ˈbɒtəm /	[ˈbɒtɱ]

Phoneme	Place	Manner	Voicing	Allophones + Position	Examples	Phonemic Transcription	Allophonic Transcription
/ n /	Apicodental	Nasal	Voiced	[n] Dental before /θ/ /ð/	‘tenth’ ‘in there’	/ ˈtenθ / / ˌɪnˈðeə(r) /	[ˈtʰɛnθ] [ˌɪnˈðeə]
	Apicoalveolar	Nasal	Voiced	[n] Elsewhere	‘can’	/ kæn /	[kʰæn]
	Laminoalveolar	Nasal	Voiced	[ŋ] Alveopalatal before /tʃ/ /dʒ/	‘lunch’	/ lʌntʃ /	[lʌŋtʃ]
	Bilabial	Nasal	Voiced	[m] Before bilabial plosive/stops	‘manpower’	/ ˈmænpaʊə /	[ˈmæmpʰaʊə]
/ ŋ /	Dorsopalatal	Nasal	Voiced	[ŋ] After close front vowels	‘going’	/ ˈgəʊɪŋ /	[ˈgəʊɪŋ]
	Dorsovelar	Nasal	Voiced	[ŋ] After open back vowels	‘sung’	/ sʌŋ /	[sʌŋ]
	Velar	Nasal	Voiced	[ŋ] Final syllabic	‘lock and key’	/ ˌlɒk ən ˈkiː /	[ˌlɒkŋ ˈkʰiː]
/ l /	Alveolar	Lateral-approx.	Voiced	[l] Initial apicoalveolar	‘loop’	/ luːp /	[luːpˠ]
	Alveolar	Lateral-approx.	Voiced	[ɫ] Velarized (<i>dark</i>) before a consonant or silence, except /j/	‘Did she call?’	/ dɪd ʃiː kɔːl /	[dɪd ʃi kʰɔːɫ]
	Alveolar	Lateral-approx.	Devoiced	[ɭ] After a aspirated /p/ /k/	‘plot’	/ plɒt /	[pɭɒtˠ]
	Alveolar	Lateral-approx.	Voiced	[ɭ] Final syllabic	‘paddle’	/ ˈpædl /	[ˈpʰædl]
	Dental	Lateral-approx.	Voiced	[ɬ] Before /θ/ /ð/	‘wealth’	/ welθ /	[weɫθ]
/ r /	Alveolar	Lateral-approx.	Voiced	[ɹ] Initial / medial	‘rock’	/ rɒk /	[ɹʷɒʔkˠ]
	Retroflex	Approximant	Voiced	[ɻ] Final (SAE)	‘car’	/ kɑː(r) /	[kɑːɻ]
	Apicoalveolar	Tap	Voiced	[r] Linking ‘r’ or after /θ/ /ð/	‘Yes, there is’	/ jɛs ˌðeər ˈɪz /	[jɛs ˌðeərˈɪz]
				[r] Intrusive ‘r’	‘warsh’	/ wɔʃ /	[wɔːrʃ]
	Alveolar	Approximant	Devoiced	[ɹ̥] After aspirated /p/ /t/ /k/	‘pray’	/ preɪ /	[pɹ̥eɪ]
	Alveolar	Fricative	Voiced	[ɹ̥] After /d/ or Final (<i>Chilean Spanish</i>)	‘dry’ ‘cantar’	/draɪ/ /ˌkanˈtar/	[dɹ̥aɪ] [ˌkanˈtaɹ̥]
	Alveolar	Trill	Voiced	[r] Initial / medial (<i>Spanish</i>)	‘perro’	/ ˈpero /	[ˈpɛrɔ]
	Alveolar	Tap/Flap	Voiced	[r] Medial (<i>Spanish</i>)	‘pero’	/ ˈpero /	[ˈpɛrɔ]
	Uvular	Trill	Voiced	[R] Initial / final (17 th century French)	‘rouge’	/ ruːʒ /	[ruʒ]
	Uvular	Fricative-approx.	Voiced	[ʁ] Initial / medial / final (<i>Modern French/German</i>)	‘rouge’	/ ruːʒ /	[ʁuʒ]

Phoneme	Place	Manner	Voicing	Allophones + Position	Examples	Phonemic Transcription	Allophonic Transcription
/ f /	Labiodental	Fricative	Voiceless	Initial / medial / final	‘fan’	/ fæn /	[fæn]
/ v /	Labiodental	Fricative	Voiced	[v] Initial / medial / final	‘van’	/ væn /	[væn]
			Devoiced	[v̥] Before voiceless consonant or silence	‘have to’	/hæv tə/	[hæv̥ tʰə]
/ θ /	Dental	Fricative	Voiceless	Initial / medial / final	‘ether’	/ 'i:θə /	['i:θə]
/ ð /	Dental	Fricative	Voiced	[ð] Initial / medial / final	‘either’	/ 'aɪðə / / 'i:ðə /	['aɪðə] ['i:ðə]
			Devoiced	[ð̥] Before voiceless consonant or silence	‘with thanks’	/ wɪð θæŋks /	[wɪð̥ θæŋks]
/ s /	Alveolar	Fricative	Voiceless	Initial / medial / final	‘seal’	/ si:l /	[si:t̚]
/ z /	Alveolar	Fricative	Voiced	[z] Initial / medial / final	‘zeal’	/ zi:l /	[zi:t̚]
	Alveolar	Fricative	Devoiced	[z̥] Before voiceless consonant or silence	‘It is too late’	/ ɪt ɪz 'tu: leɪt /	[ɪtʰ ɪz̥ 'tʰu: leɪt̚]
/ ʃ /	Postalveolar	Fricative	Voiceless	Initial / medial / final	‘shower’	/ 'ʃaʊə(r) /	['ʃaʊə]
					‘machine’	/ mə'ʃi:n /	[mə'ʃi:n]
					‘issue’	/ 'ɪʃu:/ - / 'ɪsju:/	['ɪʃu:] - ['ɪsju:]
					‘mash’	/ mæʃ /	[mæʃ]

Phoneme	Place	Manner	Voicing	Allophones + Position	Examples	Phonemic Transcription	Allophonic Transcription
/ ʒ /	Postalveolar	Fricative	Voiced	[ʒ] Initial/Medial / final	‘genre’	/ ʒɒnrə /	[ʒɒnɹə]
					‘allusion’	/ əˈljʊ:ʒən /	[əˈljʊ:ʒn]
					‘seizure’	/ ˈsi:ʒə(r) /	[ˈsi:ʒə]
			Devoiced	[ʒ̥] Before voiceless consonant or silence	‘collage’	/ kɒˈlɑ:ʒ /	[kʰɒˈlɑ:ʒ̥]
/ h /	Glottal	Fricative	Voiceless	[h] Initial / medial	‘house’	/ haʊs /	[haʊs]
			Voiced	[ɦ] Between voiced segments	‘ahead’	/ əˈhed /	[əˈɦed̥]
/ tʃ /	Postalveolar	Affricate	Voiceless	[tʃ] Initial / medial / final	‘chop it’	/ tʃɒp ɪt /	[tʃɒpʰ ɪtʰ]
					‘bachelor’	/ ˈbætʃələ(r) /	[ˈbætʃələ]
				[ʔtʃ] Glottal reinforcement in syllable-final position before consonant or silence	‘match’	/ mætʃ /	[mætʃʔ]
/ dʒ /	Postalveolar	Affricate	Voiced	[dʒ] Initial / medial / final	‘jumper’	/ ˈdʒʌmpə(r) /	[ˈdʒʌmpʰə]
					‘agent’	/ ˈeɪdʒənt /	[ˈeɪdʒəntʰ]
					‘George’	/ dʒɔ:dʒ /	[dʒɔ:dʒ̥]
			Devoiced	[dʒ̥] Before voiceless consonant or silence	‘edge’	/ edʒ /	[ɛdʒ̥] [ɛdʒ̥̥]
/ w /	Labiovelar	Approx.	Voiced	[w] Initial / medial (<i>back, oral, glide</i>)	‘wet’	/ wet /	[wɛtʰ] [wɛtʰ̥]
		Approx.	Devoiced	[w̥] After aspirated /p/ /t/ /k/	‘queen’	/ kwɪ:n /	[kwɪ:n]
		Fricative	Voiceless	[ɰ] Initial (<i>back, oral, glide</i>)	‘when’	/(h)wen/	[mɛn] [mɛn̥]
/ j /	Palatal	Approx.	Voiced	[j] Initial / medial (<i>front, oral, glide</i>)	‘yes’	/ jes /	[jɛs] [jɛs̥]
		Fricative	Voiceless	[ç] After aspirated /p/ /t/ /k/ and /hj/	‘queue’	/ kju: /	[kɕu:]
					‘a huge tuna’	/ə ˈhju:dʒ ˈtju:nə/	[ə ˈɕu:dʒ̥ ˈtɕu:nə]
/ x /	Velar	Fricative	Voiceless	[x] Final (<i>Scottish English</i>)	‘loch’	/ lɒk /	[lɒx]

Phoneme	Place	Manner	Voicing	Allophones + Position	Examples	Phonemic Transcription	Allophonic Transcription
/ ʔ /	Glottal	Stop (<i>plosive</i>)	Voiceless	Medial before /p/ /t/ /k/ /tʃ/	‘actor’ ‘top’	/ 'æktə(r) / / tɒp /	['æʔktʰə] [tʰɒʔpʰ]
				Initial before central vowels	‘Uh-oh’ (Trouble) ‘Uh-uh’ (No)	/ ʔʌ'əʊ / / 'ʌ̃ʌ̃ /	[ʔʌ'ʔəʊ] ['ʔʌ̃ʔə]

ENGLISH ALLOPHONES
(revised to 2013)

CONSONANTS

	Labial		Dental		Alveolar		Palatal		Velar		Pharyngeal	
	Bilabial	Labiodental	Dental		Alveolar	Postalveolar	Retroflex	Palatal	Velar	Uvular	Pharyngeal	Glottal
Plosive	p b				t d			c ɟ	k g			ʔ
Nasal		m	ɱ		n				ŋ			
Trill												
Tap or Flap					ɾ							
Fricative		f v	θ ð		s z	ʃ ʒ			x			ħ ʕ
Affricate					tʃ dʒ							
Lateral fricative												
Approximant	ɸ w				ɹ ɻ		ɻ	j				
Lateral approximant					l				ɭ			
Ejective stop												
Implosive												
Click												

Where symbols appear in pairs, the one to the right represents a voiced consonant. Shaded areas denote articulations judged impossible.

SPANISH ALLOPHONES
(revised to 2013)

CONSONANTS

	Labial		Dental		Alveolar		Palatal		Velar		Laryngeal	
	Bilabial	Labiodental	Interdental	Dental	Alveolar	Postalveolar	Palatal		Velar	Uvular	Laryngeal	Glottal
Occlusive	p b			t d					k g			
Nasal	m	ɱ			n		ɲ		ŋ			
Trill					r							
Tap or Flap					ɾ							
Fricative		f	θ		s z	ʃ ʒ	ç ʝ		x ɣ	χ	h	
Affricate						tʃ dʒ						
Lateral fricative												
Approximant	ɸ β			ð					ɰ			
Lateral approximant					l		ʎ					
Semivowel							j		w			
Ejective stop												
Implosive												
Click												

Where symbols appear in pairs, the one to the right represents a voiced consonant. Shaded areas denote articulations judged impossible.

THE INTERNATIONAL PHONETIC ALPHABET
(revised to 2013)

CONSONANTS

	Labial			Dental			Alveolar				Palatal				Velar				Pharyngeal			
	Bilabial		Labiodental		Dental		Alveolar		Postalveolar		Retroflex		Palatal		Velar		Uvular		Pharyngeal		Glottal	
Plosive	p	b					t	d			ʈ	ɖ	c	ɟ	k	g	q	ɢ			ʔ	
Nasal		m		ɱ				n				ɳ		ɲ		ŋ		ɴ				
Trill		ʙ						r										ʀ				
Tap or Flap								ɾ				ɽ										
Fricative	ɸ	β	f	v	θ	ð	s	z	ʃ	ʒ	ʂ	ʐ	ç	ʝ	x	ɣ	χ	ʁ	ħ	ʕ	h	ɦ
Affricate									tʃ	dʒ												
Lateral fricative							ɬ	ɮ														
Approximant	ɸ	w		ʋ				ɹ				ɻ		j		ɰ						
Lateral approximant								l				ɭ		ʎ		ʟ						
Ejective stop	p′						t′				ʈ′		c′		k′		q′					
Implosive	ɸ̥	β̥					ɬ̥	ɮ̥					ç̥	ʝ̥	ɤ̥	ɣ̥	ɕ̥	ʁ̥				
Click																						

Where symbols appear in pairs, the one to the right represents a voiced consonant. Shaded areas denote articulations judged impossible