

Linguistics 101 Phonetics/Phonology Quick Reference

MUSE¹ words for IPA Symbols

- /p t k/ - pope tote coke (/powp towɪ kowk/)
- /b d g/ - bib did gig (/bɪb dɪd gɪg/)
- /ʔ h/ - uh-oh heed (/ʔʌʔow hid/)
- /m n ŋ/ - meme nun ring (/mim nʌn ɪŋ/)
- [ɹ ɹ̃] - later ladder winner ([ˈleɪɹə ˈlæɹə ˈwɪɹə])
- /f θ s ʃ/ - fit thin sis ship (/fɪt θɪn sɪs ʃɪp/)
- /v ð z ʒ/ - vibe that zoo measure (/vɑjɪb ðæt zu ˈmeɪzə/)
- /tʃ dʒ/ - church judge (/tʃɜrtʃ dʒʌdʒ/)
- /ɹ l w j/ - rear lull wow yeet (/ɹɪ lʌl wəw jɪt/)
- /i/ beet leap seen free (/bɪt li:p sin fri:/)
- /ɪ/ bit lip sin rip (/bɪt lɪp sɪn rɪp/)
- /ej/ bait lay sane rate (/beɪt leɪ seɪn reɪt/)³
- /ɛ/ bet let sent air (/bet let sent eɪ/)
- /æ/ bat lap sam rap (/bæt læp sæm ræp/)
- /ə/ sofa garage atop (/ˈsoʊfə ɡəˈrɑ:ʒ əˈtɑ:p/)⁴
- /ʌ/ but luck son rub (/bʌt lʌk sʌn rʌb/)⁴
- /əɹ/ bird learn firm rocker (/bɜrd lærn fɜrm ˈrɑ:kəɹ/)⁵
- /ɑ/ bob lob bomb rock (/bɑb lɑb bɑm rɑk/)²
- /ɔ/ corn horse boy (/kɔrn hɔ:ns bɔɪ/)²
- /ow/ bone low foam row (/bown low fowm ɹow/)³
- /ʊ/ book look foot rook (/bʊk lʊk fʊt rʊk/)
- /u/ boot loop soon rune (/but lup sun ɹun/)
- /aj/ buy lie sign ripe (/baɪ laɪ saɪn raɪp/)³
- /aw/ bout loud sound route (/bawt lawd sawnd ɹawt/)³
- /ɔɪ/ boy lloyd coin roy (/bɔɪ lɔɪd kɔɪn ɹɔɪ/)³
- /' / marks primary stress (/ˈlæˈkɔ:rd/ 'reCORD' (verb) vs. /ˈlækərd/ 'REcord' (noun))

¹: 'MUSE' is 'Mainstream US English', reflecting a standardized variety of English in the US

²: /ɑ/ and /ɔ/ as monophthongs are merged for many, but some distinguish cot (/kɑt/) and caught (/kɔt/)

³: These can be written /eɪ oʊ aɪ əʊ ɔɪ/ as well.

⁴: /ʌ/ and /ə/ differ in stress, not sound. Details here.

⁵: /əɹ/ can also be written /ɜ:/ (stressed) or /ə/ (unstressed)

This sheet by Will Styler at UC San Diego, 2024

Common MUSE IPA Pitfalls

- Don't capitalize words in IPA
- Double consonants are lies (e.g. 'happy' /'hæpi/)
- The letter <c> is always one of /k s ʃ tʃ/
- /r/ is the Spanish trilled <r>, /ɹ/ is the English <r>
- /y/ is a rounded front vowel in the IPA, the English <y> sound in 'yes' is /j/
- <th> is either /θ/ or /ð/ ('this thistle' /ðɪs 'θɪsl/)
- /x/ is a voiceless velar fricative, the English <x> is usually /ks/ as in 'axis' /'æksɪs/
- Silent letters (lamb, name, knee) are lies
- Online IPA 'translator' tools and ChatGPT are a) often wrong and b) likely not your dialect
- If you're using a symbol not on this page for Mainstream US English, you're probably wrong
- **Remember, your writing system is lying to you!**

Phonological Rule Formatting

/x/ → [y] / __z

"Phoneme x is realized as allophone y in the environment (before z)"

Commonly Used Symbols

- __ stands in for the sound which is changing
 - __i means 'before an /i/ vowel'
 - t__ means 'after a /t/'
 - b__[stop] means 'between /b/ and any stop'
- # means 'a word boundary'
 - __# means 'at the end of a word'
 - #__ means 'at the beginning of a word'
- V means 'any vowel'
- C means 'any consonant'
- N means 'any nasal'
- Ø means 'nothing' or 'zero'
 - 'Ø → [x]' inserts, 'x/ → Ø' deletes
- Phonemes go in / / slashes
- Allophones (and features) go in [] brackets

THE INTERNATIONAL PHONETIC ALPHABET (revised to 2015)

CONSONANTS (PULMONIC)

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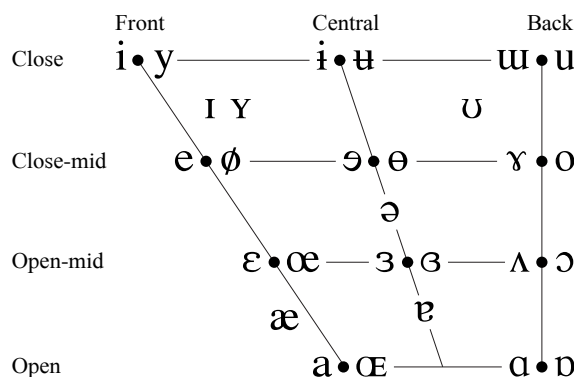
	Bilabial	Labiodental	Dental	Alveolar	Postalveolar	Retroflex	Palatal	Velar	Uvular	Pharyngeal	Glottal
Plosive	p b			t d		ʈ ɖ	c ɟ	k ɡ	q ɢ		ʔ
Nasal	m	ɱ		n		ɳ	ɲ	ŋ	ɴ		
Trill	ʙ			r					ʀ		
Tap or Flap		ⱱ		ɾ		ɽ					
Fricative	ɸ β	f v	θ ð	s z	ʃ ʒ	ʂ ʐ	ç ʝ	x ɣ	χ ʁ	ħ ʕ	h ɦ
Lateral fricative				ɬ ɮ							
Approximant		ʋ		ɹ		ɻ	j	ɰ			
Lateral approximant				l		ɭ	ʎ	ʟ			

Symbols to the right in a cell are voiced, to the left are voiceless. Shaded areas denote articulations judged impossible.

CONSONANTS (NON-PULMONIC)

Clicks	Voiced implosives	Ejectives
Ʉ Bilabial	ɓ Bilabial	ʼ Examples:
ǀ Dental	ɗ Dental/alveolar	pʼ Bilabial
ǃ (Post)alveolar	ɟ Palatal	tʼ Dental/alveolar
ǂ Palatoalveolar	ɡ Velar	kʼ Velar
ǁ Alveolar lateral	ɠ Uvular	sʼ Alveolar fricative

VOWELS



Where symbols appear in pairs, the one to the right represents a rounded vowel.

OTHER SYMBOLS

ɱ Voiceless labial-velar fricative	ɕ ʑ Alveolo-palatal fricatives
ɰ Voiced labial-velar approximant	ɺ Voiced alveolar lateral flap
ɥ Voiced labial-palatal approximant	ɧ Simultaneous ʃ and x
ħ Voiceless epiglottal fricative	
ʕ Voiced epiglottal fricative	Affricates and double articulations can be represented by two symbols joined by a tie bar if necessary.
ʡ Epiglottal plosive	

ts kp

SUPRASEGMENTALS

ˈ Primary stress	ˌ Secondary stress
ː Long	ˑ Extra-short
ˑ Half-long	ˑ Extra-short
ˑ Minor (foot) group	ˑ Major (intonation) group
ˑ Syllable break	ˑ Linking (absence of a break)

TONES AND WORD ACCENTS

LEVEL	CONTOUR
é or ˥ Extra high	ě or ˩ Rising
é High	ê ˩ Falling
ē Mid	ẽ ˩ High rising
è Low	ẽ ˩ Low rising
ẽ Extra low	ẽ ˩ Rising-falling
↓ Downstep	↗ Global rise
↑ Upstep	↘ Global fall

DIACRITICS Some diacritics may be placed above a symbol with a descender, e.g. ɲ̃

◌ Voiceless	◌ Breathy voiced	◌ Dental
◌ Voiced	◌ Creaky voiced	◌ Apical
◌ Aspirated	◌ Linguolabial	◌ Laminal
◌ More rounded	◌ Labialized	◌ Nasalized
◌ Less rounded	◌ Palatalized	◌ Nasal release
◌ Advanced	◌ Velarized	◌ Lateral release
◌ Retracted	◌ Pharyngealized	◌ No audible release
◌ Centralized	◌ Velarized or pharyngealized	
◌ Mid-centralized	◌ Raised	
◌ Syllabic	◌ Lowered	
◌ Non-syllabic	◌ Advanced Tongue Root	
◌ Rhoticity	◌ Retracted Tongue Root	