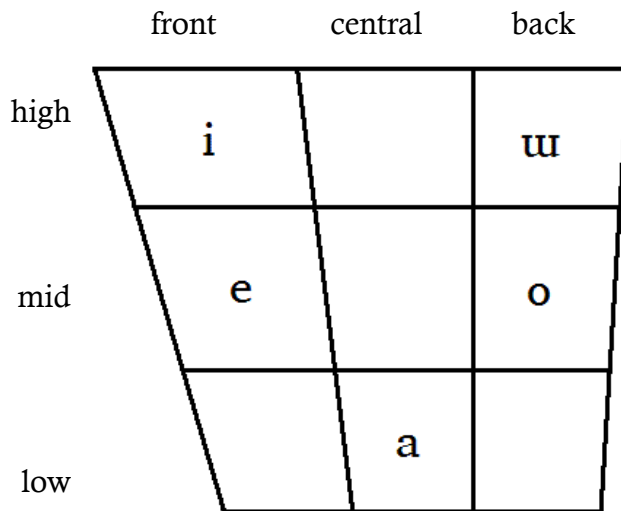


## Phonetic symbols: Reference charts for Japanese

Now that we have discussed the articulatory phonetics of the vowels and consonants of Japanese, here are the **symbols** we are using for them and the **phonetic terms** we are using to classify them.

(1) Vowel chart



- [ o ] is a round vowel; all others are unrounded
- All vowels can appear short [ e ] or long [ e: ]

(2) Consonant chart (*phonetic categories for Japanese consonants*)

		bilabial	alveolar	alveo-palatal	palatal	velar	uvular	glottal
(oral) stops		p b	t d			k g		
fricatives		ϕ	s z	ç	ç			h
affricates			ts dz	tç dç				
approximants	liquids		r					
	glides				y	w		
nasal (stop)s		m	n			ŋ	ɴ	

- “Alveo-palatal” is very similar to “palato-alveolar,” but the tongue shape is different
- We will talk more about [ ɴ ] in a later class
- The official IPA symbol for a palatal glide is [ j ], but we’ll use [ y ] in this class
- Some consonants can appear both short [ t ] and long [ t: ]; more on this later

(3) Sound file examples (sound files are on Blackboard, in *Course documents* > *Data sets*)

(a) Vowel examples

(hiragana)

[ i ]	[ kami ]	神	かみ	'deity'
[ e ]	[ kame ]	亀	かめ	'turtle'
[ a ]	[ kama ]	鎌	かま	'sickle'
[ o ]	[ kamo ]	鴨	かも	'duck'
[ u ]	[ kamu ]	噛む	かむ	'bite (v.)'

(b) Consonant examples

[ p ]	[ paN ]	パン	ぱん	'bread'
[ t ]	[ taN ]	短	たん	'defect'
[ k ]	[ kaN ]	缶	かん	'can'
[ b ]	[ baN ]	番	ばん	'turn (n.)'
[ d ]	[ daN ]	段	だん	'level'
[ g ]	[ gaN ]	癌	がん	'cancer'
[ φ ]	[ φu ]	負	ふ	'minus'
[ s ]	[ su ]	酢	す	'vinegar'
[ ç ]	[ çin ]	芯	しん	'core'
[ ç ]	[ çi ]	火	ひ	'fire'
[ h ]	[ ha ]	歯	は	'tooth'
[ ts ]	[ tsu:ka ]	通貨	つうか	'currency'
[ tç ]	[ tçizu ]	地図	ちず	'map'
[ dʒ ]	[ kidʒi ]	記事	きじ	'(newspaper) article'
[ (d)z ]	[ ku:zu ]	葛	くず	'kudzu'
[ (d)z ]	[ dzu ]	図	ず	'diagram'
[ m ]	[ ma ]	間	ま	'interval'
[ n ]	[ na ]	名	な	'name'
[ N ]	<i>(many examples; see above)</i>			
[ r ]	[ ri ]	利	り	'advantage'
[ w ]	[ wa ]	輪	わ	'ring'
[ y ]	[ ya ]	矢	や	'arrow'