

## COM 310 Notes

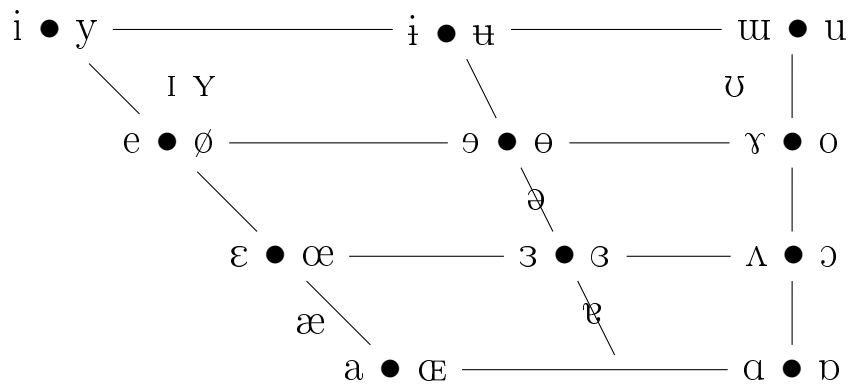


Figure 1: Vowels (Where symbols appear in pairs, the one to the right represents a rounded vowel.)

## VOWELS

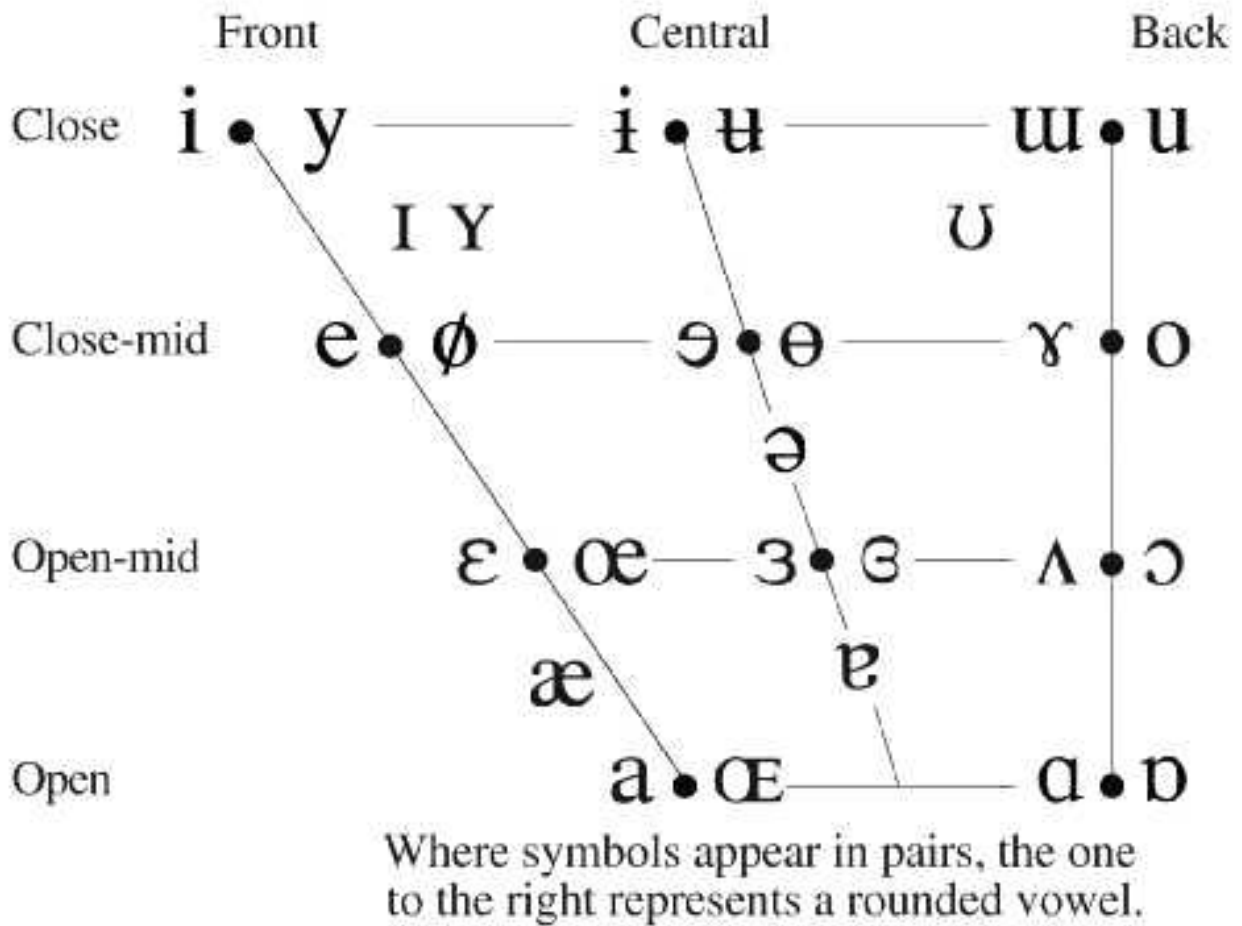


Figure 2: Vowels (Where symbols appear in pairs, the one to the right represents a rounded vowel.)

Table 1: Consonants (Pulmonic)

	bilabial		labio-dental		dental		alveolar		post-alveolar		retroflex		palatal		velar		uvular		pharyngeal		glottal	
Plosive (Stop)	p	b			t d						ʈ	ɖ	c	ɟ	k	g	q	ɢ			ʔ	
Nasal (Stop)		m		ɱ	n						ɳ		ɲ		ŋ		ɴ					
Trill		ʙ			r												ʀ					
Tap or Flap				ɾ	ɾ						ɽ											
Fricative (central) ap- prox- i- mant	ɸ	β	f	v	θ	ð	s	z	ʃ	ʒ	ʂ	ʐ	ç	ʝ	x	ɣ	χ	ʁ	ħ	ʕ	h	ɦ
lateral (ap- prox- i- mant)				ɸ	ɹ						ɻ		j		ɰ							
				ɸ	l						ɭ		ʎ		ʟ							

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

Table 2:  
List of 1 syllable animals pluralized ending

frog <b>z</b>	cow <b>z</b>	fly <b>z</b>
rat <b>s</b>	bird <b>z</b>	wasp <b>s</b>
dog <b>z</b>	goat <b>s</b>	bee <b>z</b>
cat <b>s</b>	hen <b>z</b>	ape <b>s</b>
bat <b>s</b>	lion <b>z</b>	ant <b>s</b>
pig <b>z</b>	bug <b>z</b>	crow <b>z</b>
whale <b>z</b>		hawk <b>s</b>
snake <b>s</b>	ram <b>z</b>	sloth <b>s</b>
bear <b>z</b>	seal <b>z</b>	snail <b>z</b>

The key is if your vocal cords (aka vocal folds) vibrate on the last sound of the word. If it vibrates, it will sound like a 'z,' if it doesn't, it will sound like an 's'.

The only exception to this rule is if the last sound is

- sh (like wish)
- ss (like hiss)
- zz (like fuzz)
- ge/je (like fudge)

which would end in 'iz'.

Table 3:  
List of 1 syllable past-tense ending

walk <b>t</b>	greet <b>id</b>
beg <b>d</b>	pat <b>id</b>
tee <b>d</b>	pad <b>id</b>
grin <b>d</b>	sniff <b>t</b>
grill <b>d</b>	starve <b>d</b>
snow <b>d</b>	wheel <b>d</b>
fuss <b>t</b>	tow <b>d</b>
	buzz <b>d</b>

Table 4:

	voicing	place of articulation (poa)	manner
b:	voiced	bilabial	stop
p:	voiceless	bilabial	stop
m:	voiced	bilabial	nasal
f:	voiceless	lab-dental	fricatives
v:	voiced	lab-dental	fricatives

Table 5:

	lips	lab-dental	dental	alv	post-alv	palatal	velar	glottal
Stops	p b			t d			k g	uh oh
Nasal	m			n			ŋ	
Fricatives		f v	thin/this	s z	sh zh			
Affricatives					ch, dge, J			
Approximates	w			l r		j		

alv means alveolar ridge, red highlights are stop consonants.

Table 6:

	bilabial	labio-dental	dental	alveolar	paleo-alveolar	palatal	velar	glottal
nasal (stop)	m	ɱ		n			ŋ	
stop	p b			t d			k g	ʔ
fricative		f v	θ ð	s z	ʃ ʒ			h
(central) approximant	(w)			ɹ		j	w	
lateral (approximant)				l				

Table 7: b.t

beet	/i/
bit	/I/
bet	/ε/
bat	/æ/
bought (caught)	/ɔ/
bot (cot)	/a/
but	/ʌ/
abut	/ə/
boot	/u/
bait	/eɪ/
bite	/aɪ/
boat	/o/
book	/u/
boil	/oɪ/
bout	/au/

a. touch

b. woman

c. women

d. flood flʌd

- e. wrapped  $\text{.æpt}$
- f. prays  $\text{p.æɪz}$
- g. brood  $\text{brud}$
- h. ghoul  $\text{gul}$
- i. torch  $\text{tɔ:tʃ}$
- j. stood
- k. move  $\text{muv}$
- l. breathe  $\text{brið}$
- m. breath  $\text{brɛθ}$
- n. lose  $\text{luz}$
- o. loose  $\text{lus}$
- p. punched  $\text{p.ʌntʃt}$

$[\delta \text{is} \text{ɪ} \text{z} \text{sə} \text{ma} \text{ɪ} \text{p} \text{ɪ} \text{ɪ}]$   
 $[\text{ɪ} \text{ts} \text{ɪ} \text{l} \text{ɪ} \text{j} \text{ɪ} \text{z} \text{ɪ} \text{t} \text{ʌ} \text{ɪ} \text{p}]$

Table 8: Spot the difference

t	v	g	b	t is voiced, the rest aren't
ae	o	i	e	o is a back vowel
f	s	h	z	z is voiced
w	n	ɹ	j	n is not an approximant

Table 9:

rat	button	top	stop	butter
$/\text{ɪ} \text{æ} \text{t}/$	$/\text{b} \text{ʌ} \text{t} \text{b} \text{ʌ} \text{n}/$	$/\text{t} \text{ʌ} \text{p}/$	$/\text{s} \text{t} \text{ʌ} \text{p}/$	$/\text{b} \text{ʌ} \text{t} \text{ə} \text{ɹ}/$
$[\text{ɪ} \text{æ} \text{t}^{\text{̚}}]$	$[\text{b} \text{ʌ} \text{ʔ} \text{b} \text{ʌ} \text{n}]$	$[\text{t}^{\text{h}} \text{ʌ} \text{p}]$	$/\text{s} \text{t} \text{ʌ} \text{p}/$	$[\text{b} \text{ʌ} \text{ɹ} \text{ə} \text{ɹ}]$
unreleased	glottal stop	aspiration	alv	flap

$[\text{ʔ}]$  is a glottal stop,  $[\text{̚}]$  is an unreleased sound,  $[\text{t}^{\text{h}}]$  is an aspiration

The phonetic  $[/\text{t}/]$  has 5 phonetics:

- $[\text{ʔ}]$
- $[\text{t}^{\text{̚}}]$
- $[\text{t}^{\text{h}}]$

- [ɹ]
- [t]

/n/, matches the place of articulation of the consonant that follows (nasal place assimilation)

- intent [n]
  - in time
- input [m]
  - in place
- ingrate [ŋ]
  - in case
- inform [ŋ]
  - in fact

Table 10:

keep	cop
/kip/	/kap/
[c <sup>h</sup> ɪp]	[k <sup>h</sup> ap]

Words with a voiceless stop:

- ‘pop’ – /pap/ – [p<sup>h</sup>ap̚]
- ‘peel’ – /pil/ – [p<sup>h</sup>iɫ]
- ‘bat’ – /bæt/ – [bæt̚]

Truck: /tɹʌk/, not [ϕʌk]

- top [t<sup>h</sup>ap]
- stop [stap]
- butter [bʌt̚ɹ̩]
- potato [p<sup>h</sup>ət<sup>h</sup>ro]
- tomato [t<sup>h</sup>əmero]

- Metathesis
- Coarticulation
- Assimilation
- Weakening
- Fortis/strengthening

## 0.1 Metathesis

- Literally – [lírərli], sometimes pronounced [litróli]
- Nuclear
- Ask – [æsk] or [æks]