

Tape 1: Consonant Articulation

Points of Articulation (Less movable points along the upper part of the mouth to which the more movable parts approach)

1. Labial ([p, b, m])
2. Dental ([f, θ e.g. thing, v. & e.g. th])
3. Velar ([k, g, ŋ])
4. Alveolar (ridge) ([s, z, t, d, n, l])
5. Alveopalatal ([ʃ, ʒ])

Major Articulators:

1. Tongue (tip, blade, middle, back)
2. Velic

Manners of Articulation:

1. Stops---The articulator so completely touches the point of articulation that no air can escape. (e.g., [p, t, k, b, d, g])
2. Fricatives---The articulator does not make a complete stop and reaches a point very close to the point of articulation, so close that the air forcing through sets up turbulence and makes a hissing or buzzing sound. (e. g., [p, f, θ, s, ʃ, x, b, v, & z, ʒ, ʒ])
3. Nasals---The velic is open and the air stream goes out the nose. (e.g., [m, n, ŋ])
4. Laterals---The formation of the tongue is such that the air comes over the sides (one or both) rather than over the center of the tongue. (e.g., [l])

Tapes 2 & 4: Pitch Distinctions

a. Differential

Rising [↗]

Falling [↘]

Level [—]

b. Levels

1. ³
2 Johnny
1

2. ³
2 Johnny
1

3. ³
2 Johnny
1

4. ³
2 Johnny
1

c. Glides

³
2 John (Short Rise)
1

³
2 John (Short Fall)
1

³
2 John (Long Rise)
1

³
2 John (Long Fall)
1

Tape 3: Additional Manner

Voiced: ([b, d, g])

Voiceless: ([p, t, k])

Tape 5: Voiceless Aspirated & Unaspirated Stops

Glottal Stops ([ʔ] e.g. Brooklynese Bottle ['baʔl])Aspirated ([ʰ], puff of air, e.g., English pill ['pʰɪl])Unaspirated: (English spill ['spɪl])

Aspirated and unaspirated voiceless stops in relation to voiced stops:

	Bilabial	alveolar	velar	glottal
Voiced	b	d	g	
Voiceless (unasp.)	p	t	k	ʔ
Voiceless (Asp.)	p ^h	t ^h	k ^h	

Tape 6: Dental and Retroflex articulations:

Dental: [t̪ t̪^h d̪ d̪^h ʒ̪]

Retroflex: Tongue tip is curled back from alveolar or alveopalatal position, until it points upward and touches against the alveopalatal region near the alveolate or on the palate itself.

[t̪̣ t̪̣^h d̪̣ d̪̣^h ʒ̪̣]

Tape 7: Pure Vowels and Back & Central Vowels

	Front	Central	Back	Back
	Unrounded	Unrounded	Unrounded	Rounded
H				
High	i		u "Inverted y"	u
Lower-High	e "Iota"		ɤ "Gamma"	ɯ "Upsilon"
Mid	e			o
Lower-Mid	ɛ "Epsilon"			
Low	æ "Digraph"	ʌ "Carot"		ɔ "Open o"
Lower-low		ɑ "script a"		

Tape 8: Labial and Velar Stops

Labial Stops: [b, p]

Labial Stops: [b^h, p^h]

(Simultaneous closure at back-velar and bilabial)

Tape 9: Alveopalatal Stops

[c, c^h, j]

Tape 10: Unreleased & released consonants

[p⁻, t⁻, k⁻]

Tape 11: Back Unrounded Vowels

(See Vowel chart tape 7)

Tape 12: Implosives; Fortis & Lenis Articulation

Implosives: Ingressive pharynx air is produced by closing, or nearly closing the vocal cords and pulling the larynx downward while some articulation such as a stop is being made in the mouth.

Fortis: Tight muscle movements

Lenis: (lax, light muscle movements.)