



MANNER OF ARTICULATION

Stops: [p], [b], [t], [d], [k], [g]

Fricatives: [f], [v], [θ], [ð], [s], [z], [ʃ], [ʒ]

Affricates: [tʃ] and [dʒ]

Nasals: [m], [n] and [ŋ]

Liquids: [l] and [r]

Glides: [w] and [j]



MANNER OF ARTICULATION

Stops: [p], [b], [t], [d], [k], [g]

Q: How are Stops [p],[b],[t],[d],[k],[g] produced?

By some form of 'stopping' of the airstream (temporarily/very briefly) **then** letting it go abruptly

Q: How can we fully describe the sound [t] in (ten) ?

- V+ or -V?
- Place of Articulation (where)?
- Manner of Articulation (how)?

A: [t] is a voiceless alveolar stop.



Word	Stop-plosives	V+ or -V	Place of Articulation	Manner of Articulation
Pet, apple, shepherd	[p]	-V	Bilabial	Stop-plosive
bet, bubble	[b]	V+	Bilabial	Stop-plosive
cat, water, debt	[t]	-V	Alveolar	Stop-plosive
dog, mud, middle	[d]	V+	Alveolar	Stop-plosive
Kill, cat, back	[k]	-V	veolar	Stop-plosive
get, giggle, ghost	[g]	V+	veolar	Stop-plosive



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Fricatives: [f], [v], [θ], [ð], [s], [z], [ʃ], [ʒ]

Q: How are Fricatives [f],[v],[θ],[ð],[s],[z],[ʃ],[ʒ] produced?

Involves almost blocking the airstream and having the air pushed through a very narrow opening. As the air is pushed through, a type of friction is produced.

Q: How can we describe the sounds of the consonants in each of the following words?

- Fish
- Those

A:(Fish) Begins & ends with the voiceless fricative [f] & [ʃ]

Begins with [f] Labiodental *Ends with [ʃ]* Palatal

(Those) Begins & ends with the voiced fricative [ð] & [z]

Begins with [ð] Dental *Ends with [z]* Alveolar

Word	Stop-plosives	V+ or -V	Place of Articulation	Manner of Articulation
fun,phone,off	[f]	-V	Labiodental	Fricatives
van,of	[v]	V+	Labiodental	Fricatives
three,mouth	[θ]	-V	Dental	Fricatives
the,mother	[ð]	V+	Dental	Fricatives
sea,circle,class	[s]	-V	Alveolar	Fricatives
has,zone,puzzle	[z]	V+	Alveolar	Fricatives
Sheep,wish,sugar	[ʃ]	-V	palatal	Fricatives
Measure,pleasure	[ʒ]	V+	palatal	Fricatives



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Affricates: [tʃ] and [dʒ]

Q: How are Affricates [tʃ],[dʒ] produced?

It is the combination of a brief stopping of the airstream with an obstructed release which causes some friction.

Q: How can we describe the beginning sound of each of the following words?

- Cheap
- Jeep

A: Cheap [tʃ] is a **voiceless** palatal **affricate**.



Jeep [dʒ] is a **voiced** palatal **affricate**.



Word	Stop-plosives	V+ or -V	Place of Articulation	Manner of Articulation
chain,match,cello	[tʃ]	-V	palatal	Affricates
gem,soldier,region	[dʒ]	V+	palatal	Affricates



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Nasals: [m], [n] and [ŋ]

Q: How are Nasals[m], [n]and [ŋ] produced?

When the velum is lowered and the air stream is allowed to flow out through the nose, the sounds are describes as nasal.

Q: How do we describe the first sound in the following words ‘morning’ and ‘name’ and the last sound of the word ‘skating’?

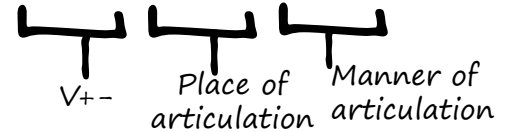
A: morning [m] is a **voiced Bilabial Nasal**.



skating [ŋ] is a **voiced Velar Nasal**.



name [n] is a **voiced Alveolar Nasal**.



Word	Stop-plosives	V+ or -V	Place of Articulation	Manner of Articulation
mom,calm,comb	[m]	-V	Bilabial	Affricates
net,ten,dinner	[n]	V+	Alveolar	Affricates
Song,bang	[ŋ]	V+	Velar	Affricates



MANNER OF ARTICULATION

Liquids: [l] and [r]

Q: How are Liquids [l] & [r] produced?

[l] : A lateral liquid: Letting the airstream flow around the sides of the tongue as the tip of the tongue makes contact with the alveolar ridge.

[r]: The tongue tip raised and curled back near the alveolar ridge.

Q: How do we describe the first sound in the following words ?

- o led
- o red

A: led [l] is a **voiced** Alveolar **liquid**.



red [r] is a **voiced** Alveolar **liquid**.



Word	Stop-plosives	V+ or -V	Place of Articulation	Manner of Articulation
lip,bottle,full	[l]	V+	Alveolar	liquid
Car,wrong,carry	[r]	V+	Alveolar	liquid



MANNER OF ARTICULATION

Glides: [w] and [j]

Q: How are Glides [w] & [j] produced?

The tongue is in motion (or “gliding”) to or from the position of a vowel and are sometimes called semi-vowels..

Q: How do we describe the first sound in the following words ?

- we
- you

A: we [w] is a **voiced Bilabial Glide**.



You [r] is a **voiced Palatal Glide**.



Word	Stop-plosives	V+ or -V	Place of Articulation	Manner of Articulation
wet,what,quite	[w]	V+	Bilabial	Glide
use,few	[j]	V+	Palatal	Glide

Vowels



VOWELS

Describing Vowels

How high is the highest part of the tongue in the mouth?

- High
- Mid
- Low

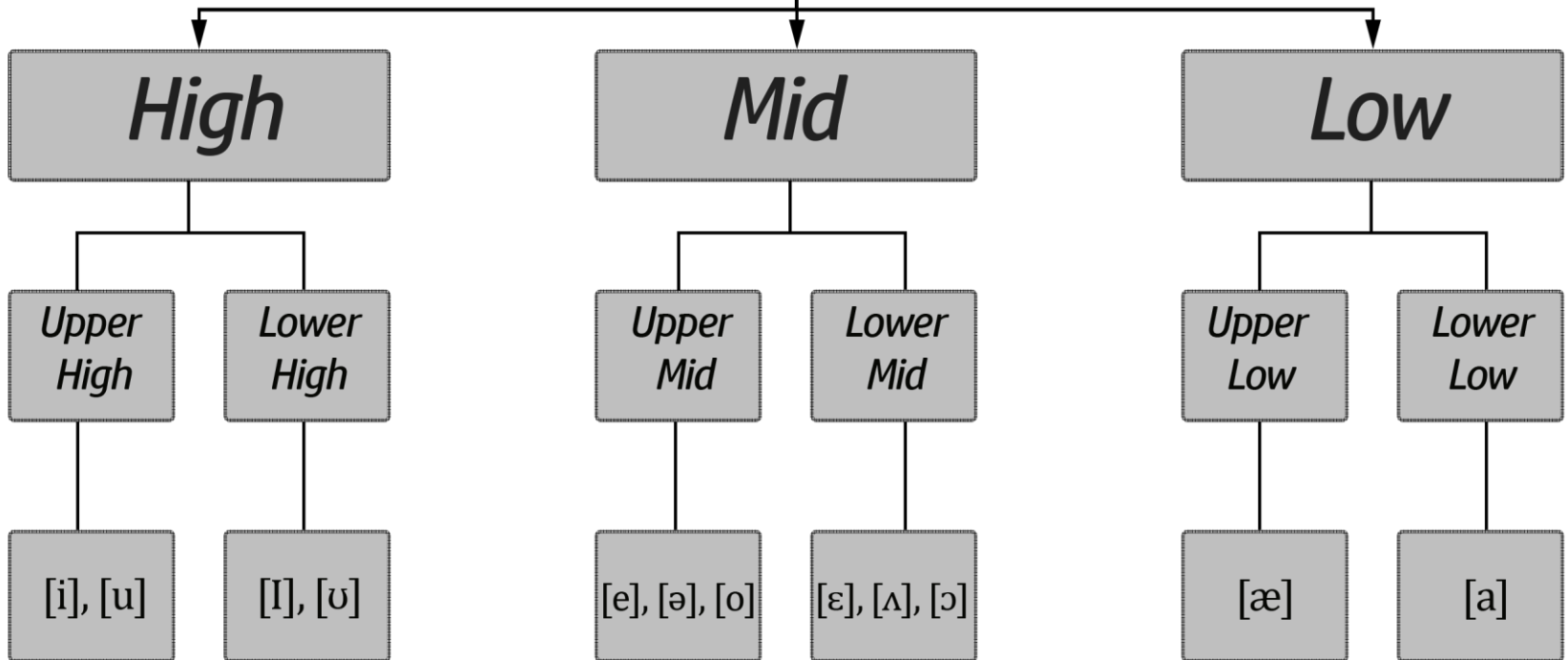
How front or back is the highest part of the tongue in the mouth?

- Front
- Central
- Back



VOWELS

Vowel Height





VOWELS

Vowel Backness

Front

[i],[ɪ],[e]
[ɛ],[æ]

Central

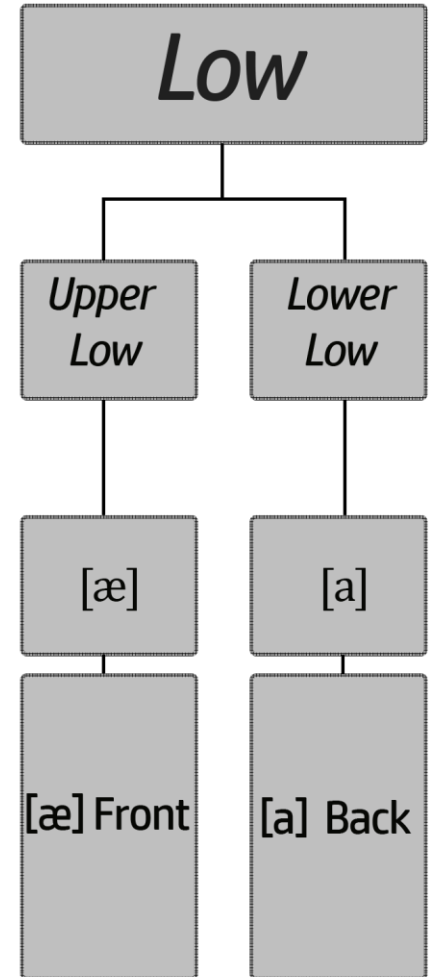
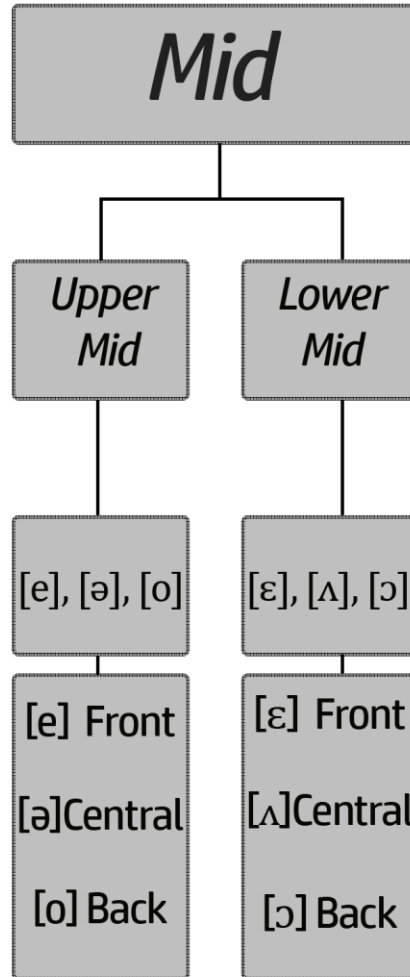
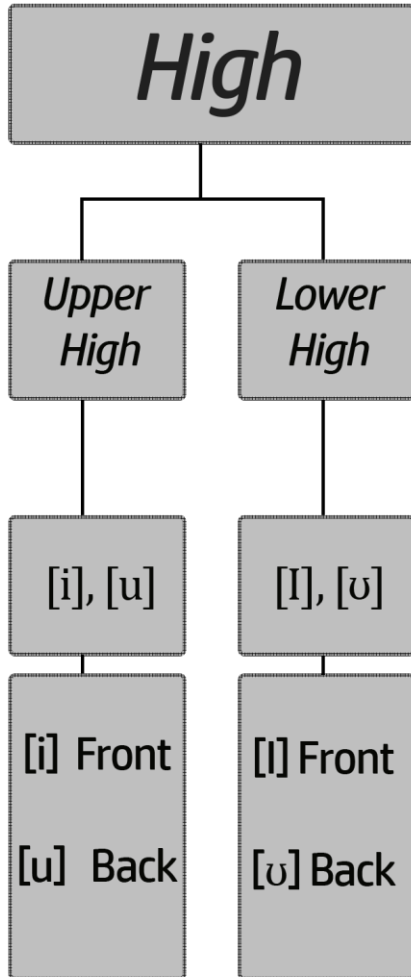
[ə],[ʌ]

Back

[u],[ʊ],[o]
[ɔ],[a]



VOWELS





VOWELS

Upper High [i], [u]

[i] (front) eat, key, see, week, tree

[u] (back) move, two, too, drew

Lower High [ɪ], [ʊ]

[ɪ] (front) hit, myth, women, invite, pin

[ʊ] (back) could, foot, put

Upper mid [e], [ə], [o]

[e] (front) great, weight, eight, locate

[ə] (central) above, about, travel, occur

[o] (back) no, hello, road, over

Lower mid [ɛ], [ʌ], [ɔ]

[ɛ] (front) Ped, dead, many, said

[ʌ] (central) Blood, what, does, some, love

[ɔ] (back) Long, dog, audio, all, hall, jaw

Upper Low [æ]

[æ] (front) ban, bat, have, laugh

Lower Low [a]

[a] (back) bomb, swan, calm



VOWELS

Diphthongs

The combination of two sounds is known as diphthongs.

[ai]	By , die , pipe , bike , guide, type , buy , eye
[au]	How , cow , mouse , house , hour , doubt , about
[ei]	rate , late , rain , main , fail , mail , brain ,train
[ou]	role , bone , phone , bonus , old , no , go
[ɔi]	noise , voice , toy , boy , employ