

Introduction to linguistics

مدخل إلى اللغويات



The sounds of language

Voiced and voiceless sounds

Voiceless :(no vibration) SSSSS or FFFFF

Voiced:(vibration) ZZZZZ or VVVVV

Manner of articulation

Stops
Fricatives
Affricates
Nasals
Liquids
Glides

Phonetics

The general study of the characteristics of speech sounds.

Place of articulation

Bilabial
Labiodentals
Dentals
Alveolars
Palatals
Velars
Glottals





PHONETICS

The general study of the characteristics of speech sounds.

Articulatory phonetics

The study of how speech sounds are made.



Sounds of Spoken English $\neq$ **Letters** of Written English

Would you understand this?

Seagh $\longrightarrow$ chef

How did the restaurant owner come up with this spelling?

Take the **1st sound** of the word 'sure'

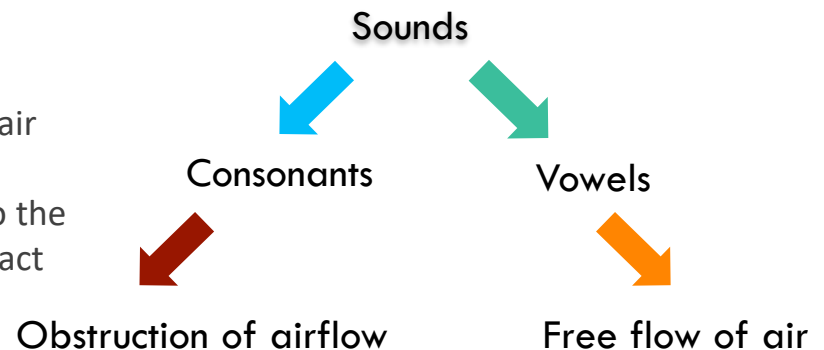
The **middle sound** of the word 'dead'

The **final sound** of the word 'laugh'

More details

Airstream mechanism

- All sounds are made with some movements of air
- The basic source of power is the lungs
- The air goes up the windpipe (trachea) and into the larynx and out of the body through the vocal tract (i.e. mouth or nose)





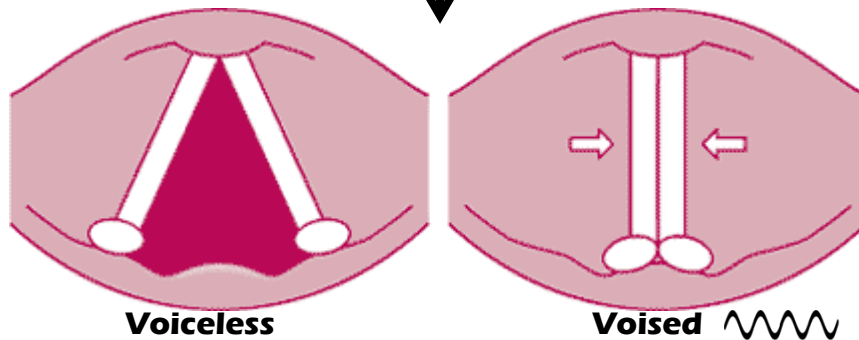
VOICED AND VOICELESS SOUNDS

Voiced

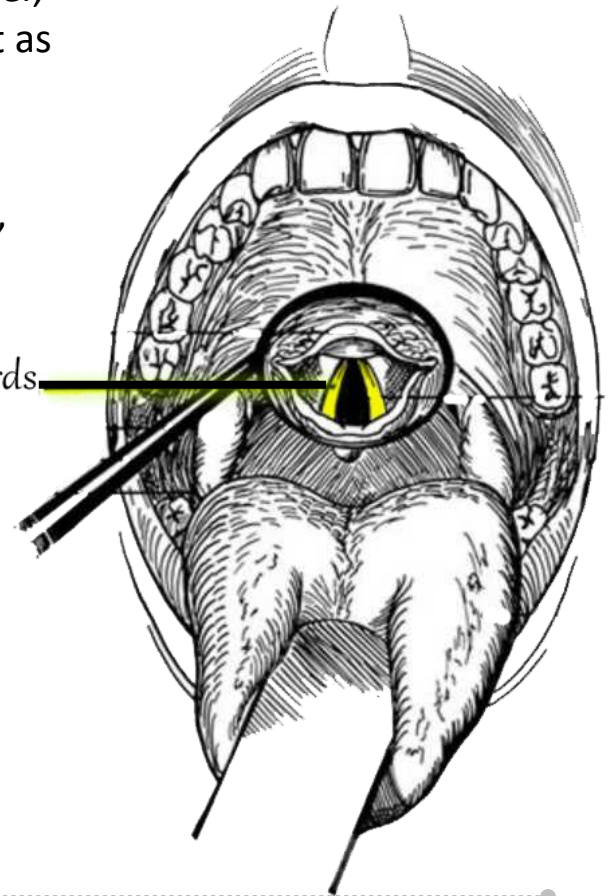
When the vocal cords (vocal folds) are drawn together, the air from the lungs repeatedly pushes them apart as it passes through. **ZZZZZ** or **VVVVV** (vibration)

Voiceless

When the vocal cords (vocal folds) are spread apart, the air from the lungs passes between them unimpeded. **SSSSS** or **FFFFF** (no vibration)

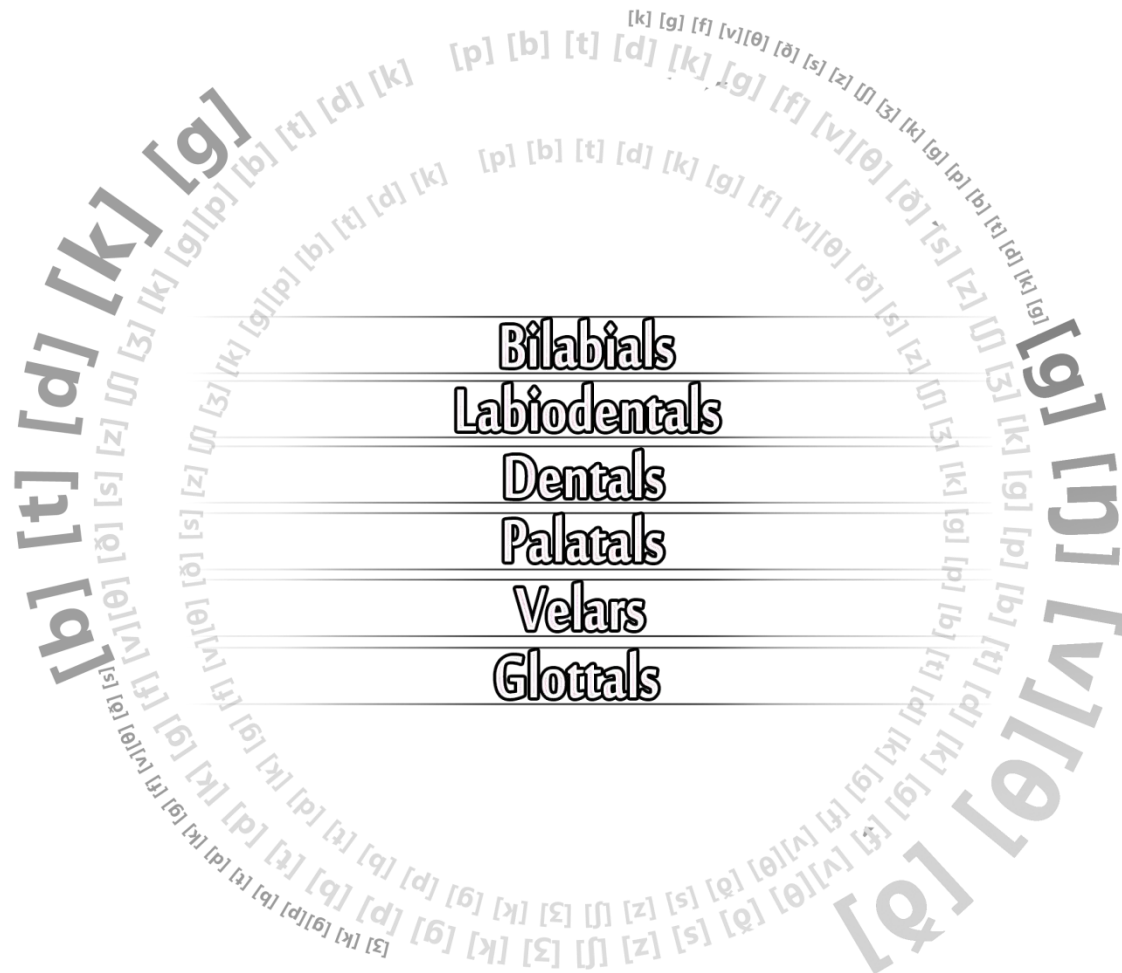


vocal cords



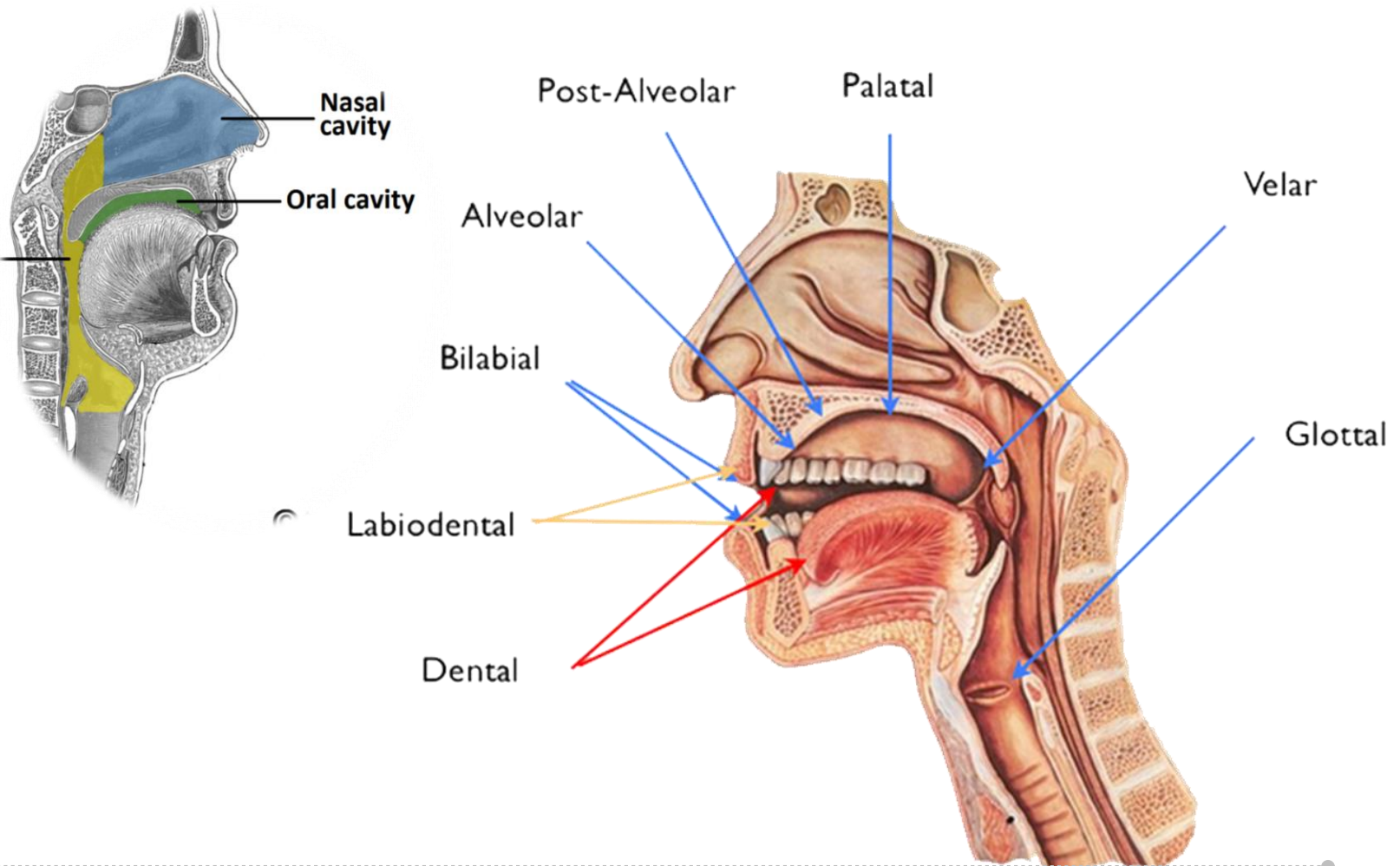


PLACE OF ARTICULATION





PLACE OF ARTICULATION

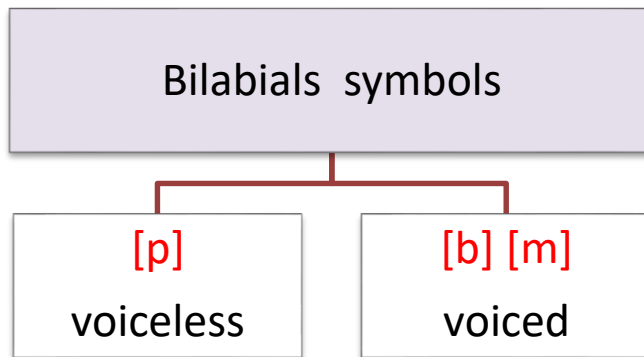




PLACE OF ARTICULATION

Bilabials

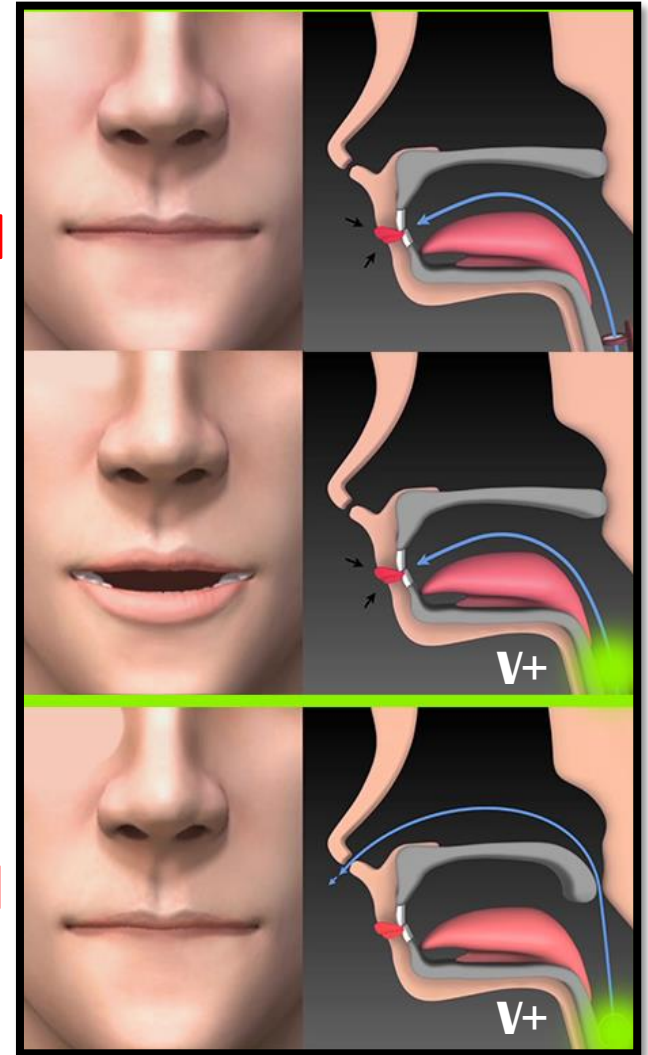
These are sounds formed using **both upper and lower lips**.



pat [p]

bat [b]

mat [m]



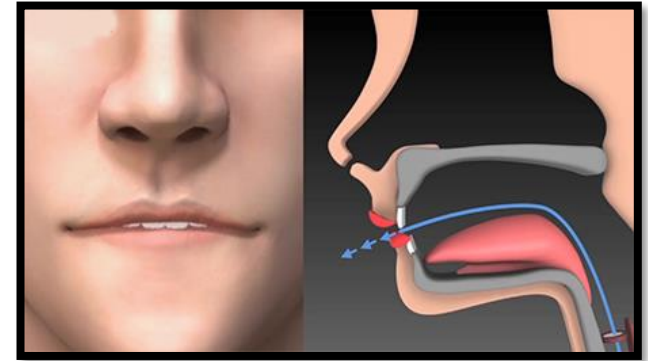
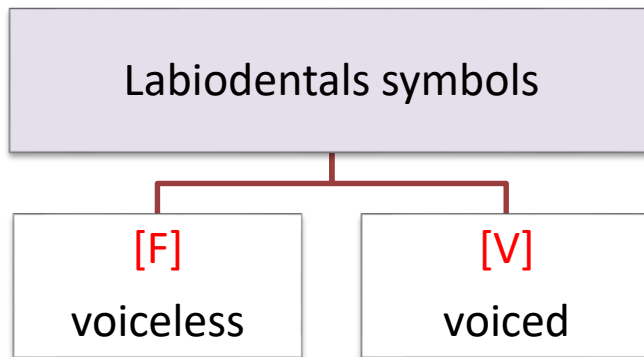


PLACE OF ARTICULATION

Labiodentals

These are sounds formed with **the upper teeth and the lower lip**

fat/ safe [f]

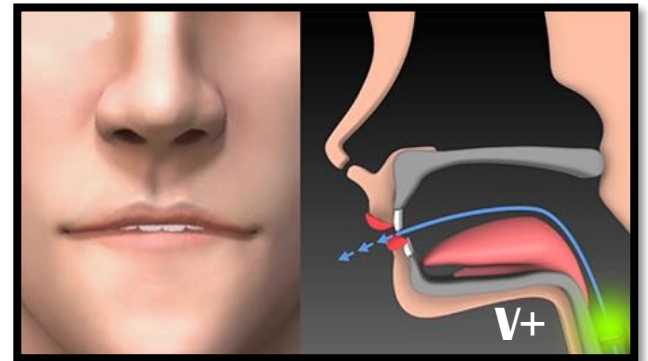


Q: How about... cough & photo?

A: Despite the spelling differences

cough/ photo → [f]

vat/ save [v]



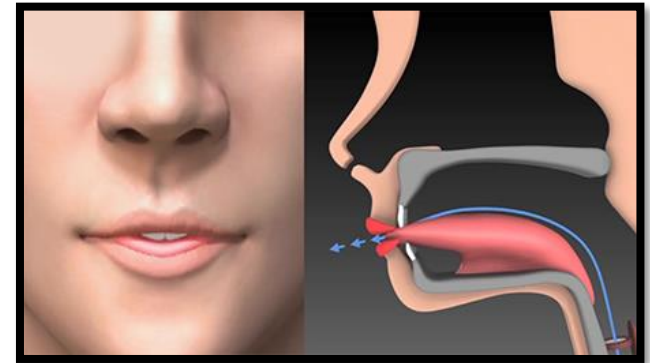
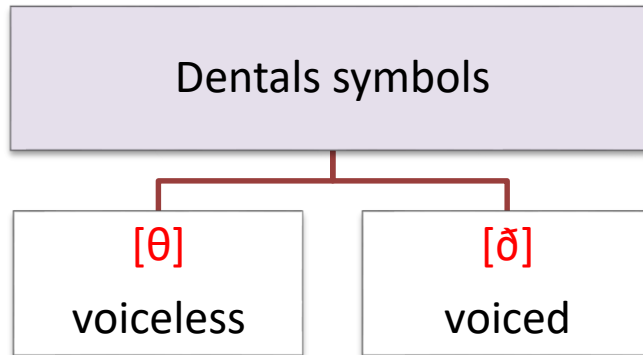


PLACE OF ARTICULATION

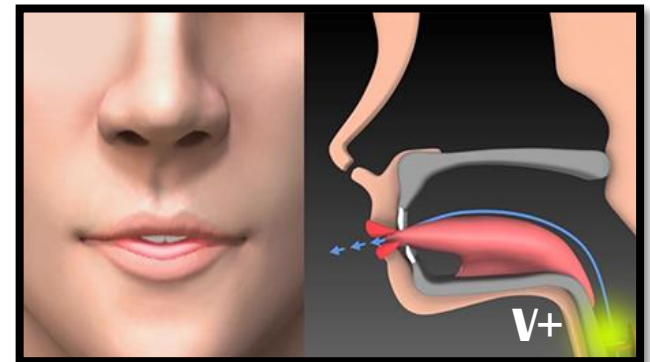
Dentals

These are sounds formed with **the tongue tip behind the upper front teeth.**

thin/ bath/ three/ teeth [θ]



the/ there/ then/ thus [ð]

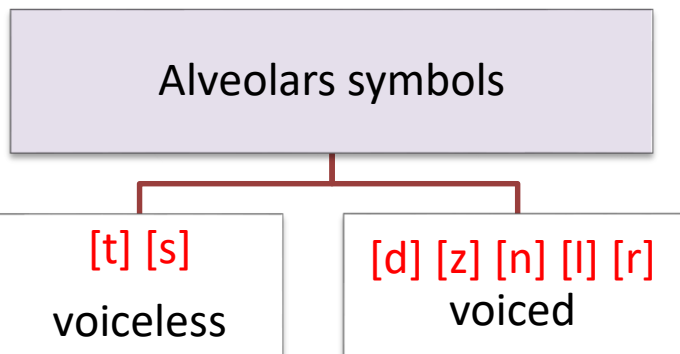




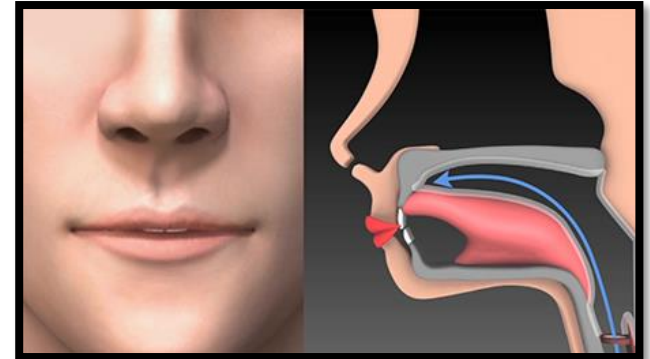
PLACE OF ARTICULATION

Alveolars

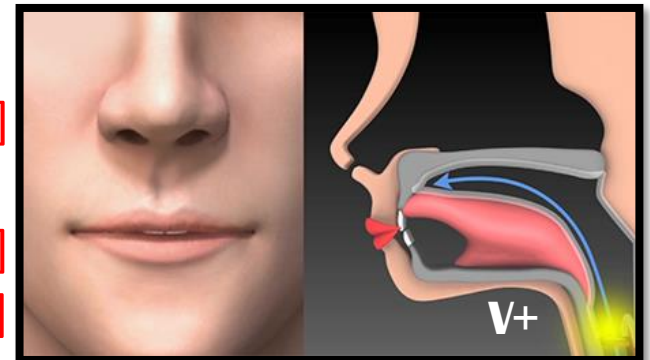
These are sounds formed with **the front part of the tongue on the alveolar ridge**.



top [t]
sit [s]

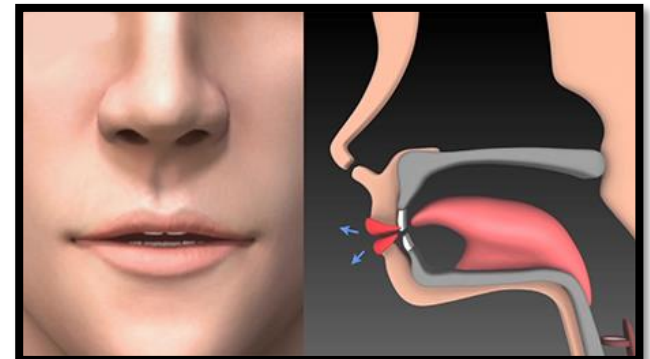
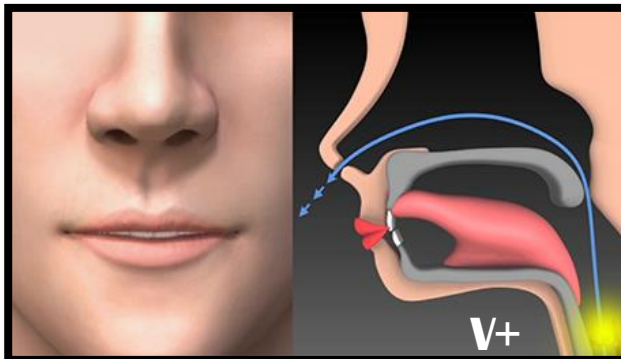


zoo [z]
lap [l]
dip [d]
right [r]



nut

[n]



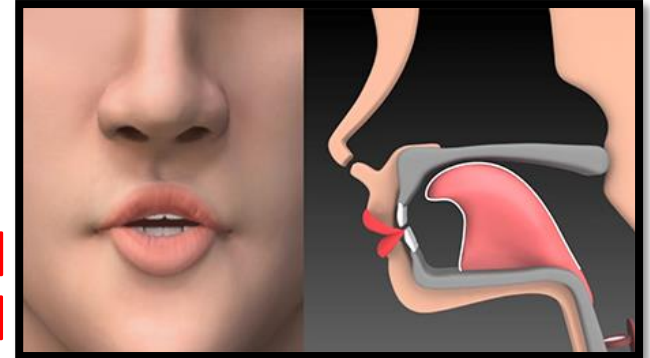


PLACE OF ARTICULATION

Palatals

These are sounds formed with **the tongue and the hard palate**.

Brush/sheep [ʃ]
chain/church [tʃ]



Palatals symbols

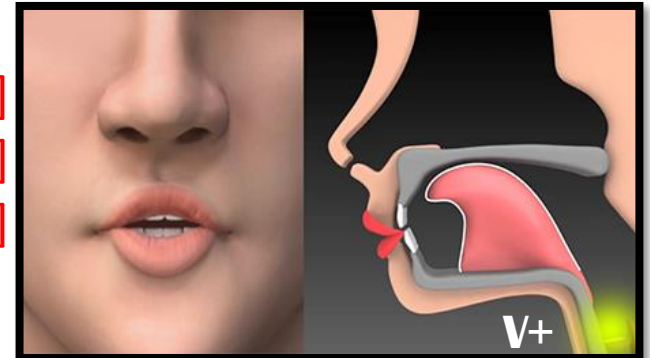
[ʃ] [tʃ]

voiceless

[ʒ] [dʒ] [j]

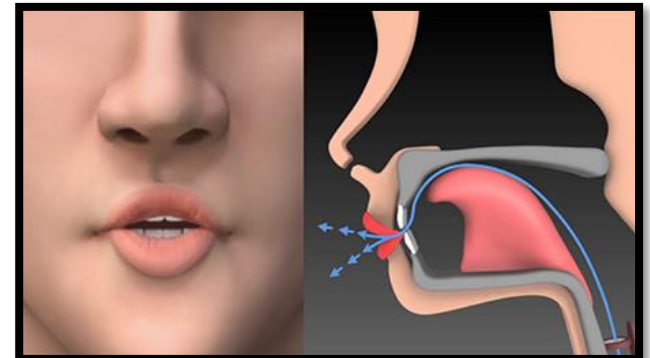
voiced

pleasure [ʒ]
judge [dʒ]
you [j]



[ʃ] "sh" shout
[tʃ] "ch" child

[ʒ] treaSure
[dʒ] gem
[j] yet





PLACE OF ARTICULATION

Velars

Sounds produced with **the back of the tongue against the velum** are called **velars**.

Velars symbols

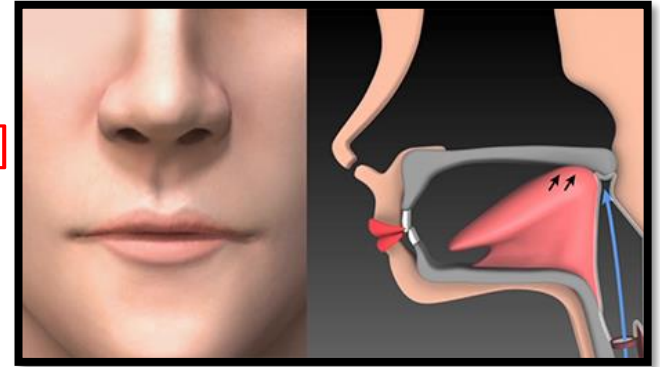
[k]

voiceless

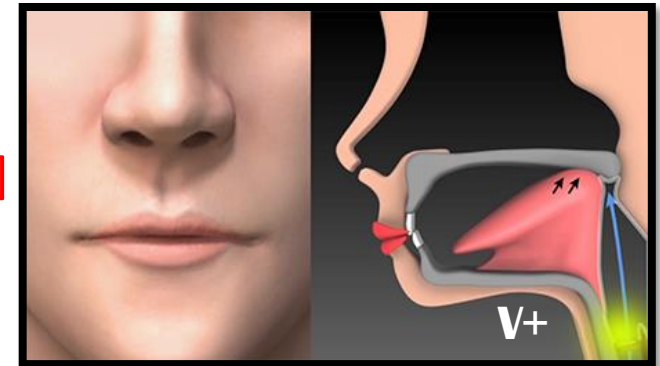
[g] [ŋ]

voiced

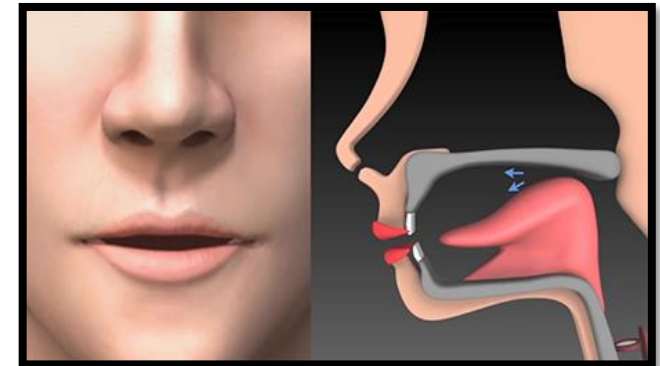
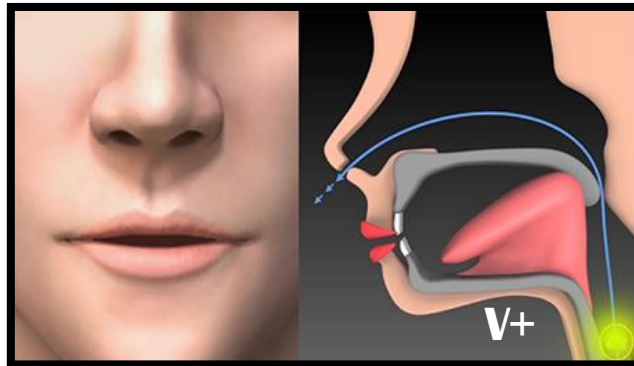
kill /cook [k]



go [g]
mug



sing [ŋ]





PLACE OF ARTICULATION

Glottals

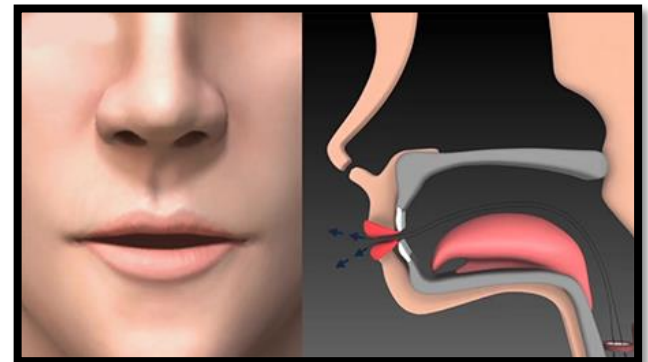
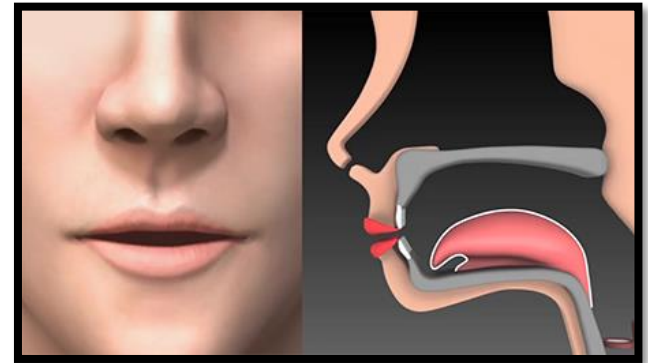
There is one sound that is produced **without the active use of the tongue and other parts of the mouth.**

have/ house/ *horse* [h]

Glottals symbols

[h]

voiceless





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



MANNER OF ARTICULATION

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



MANNER OF ARTICULATION

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



MANNER OF ARTICULATION

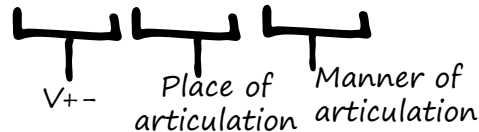
Nasals: [m], [n] and [ŋ]

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 described 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