COURSE TITLE: BASIC PHONETICS AND ENGLISH PHONOLOGY

TITLE: ARTICULATORY PHONETICS-PLACE OF ARTICULATION

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Consider these pairs of words:

- *zip* and *sip*,
- *Buzzes* and *passes*,
- *Church and judge*
- Shame and seizure.
- Fan and van
- Kill and gill
- Using these highly similar but distinct sounds enables speakers to create words that differ by only a single feature of voicing on a single sound but carry quite different meanings

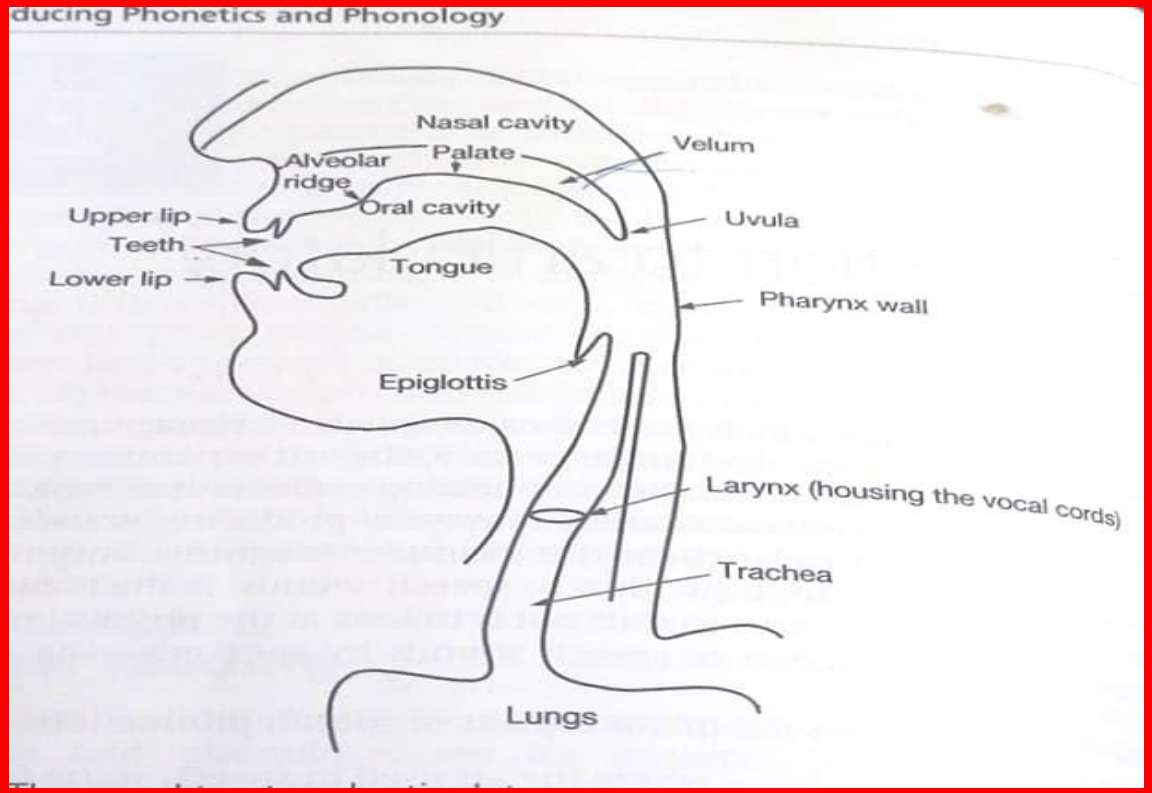
PLACE OF ARTICULATION

- Place of articulation refers to the point of greatest closure when producing a sound.
- Practical activity
- As we discuss these places of articulation, ensure you pronounce each sound and note where it is produced.
- The following are the places of articulation.

ARTICULATORY ORGANS AND THE IPA CHART

- To study this lesson effectively, we need to make reference to two aspects:
- The articulatory organs
- The IPA chart – the horizontal side.

THE VOCAL TRACT AND ARTICULATORY ORGANS



Davenport,M& Hannahs, S.J.2010. Introducing phonetics and phonology. Routledge.

INTERNATIONAL PHONETIC ALPHABET (IPA) CHART

CONSONANTS (PULMONIC)

	Bilabial	Labiodental	Dental	Alveolar	Postalveolar	Retroflex	Palatal	Velar	Uvular	Pharyngeal	Glottal
Plosive	p b			t d		ʈ ɖ	c ɟ	k g	q ɢ		ʔ
Nasal	m	ɱ		n		ɳ	ɲ	ŋ	ɴ		
Trill	ʙ			r					ʀ		
Tap or Flap				ɾ		ɽ					
Fricative	ɸ β	f v	θ ð	s z	ʃ ʒ	ʂ ʐ	ç ʝ	x ɣ	χ ʁ	ħ ʕ	h ɦ
Lateral fricative				ɬ ɮ							
Approximant		ʋ		ɹ		ɻ	j	ɰ			
Lateral approximant				l		ɭ	ʎ	ʟ			

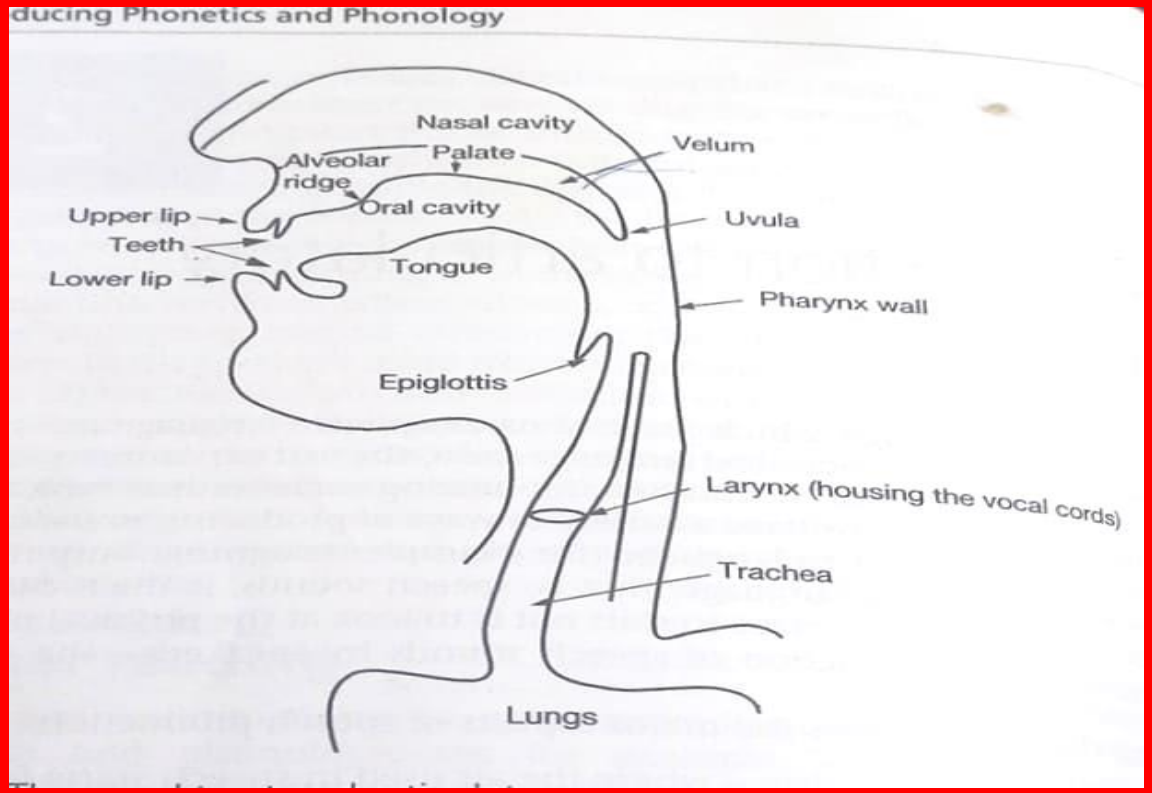
From Roach, P. 2009. English phonetics and phonology. Cambridge University Press.

ARTICULATORY PHONETICS

- As we noted earlier, all the sounds we make when we speak are the result of muscles contracting.
- The muscles in the chest that we use for breathing produce the flow of air that is needed for almost all speech sounds;
- Muscles in the larynx produce many different modifications in the flow of air from the chest to the mouth.
- After passing through the larynx, the air goes through what we call the vocal tract, which ends at the mouth and nostrils;

- we call the part comprising the mouth the oral cavity and the part that leads to the nostrils the nasal cavity.
- Here the air from the lungs escapes into the atmosphere.
- We have a large and complex set of muscles that can produce changes in the shape of the vocal tract.
- In order to learn how the sounds of speech are produced it is necessary to become familiar with the different parts of the vocal tract.
- These different parts are called articulators, and the study of them is called **articulatory phonetics.**

THE VOCAL TRACT AND ARTICULATORY ORGANS



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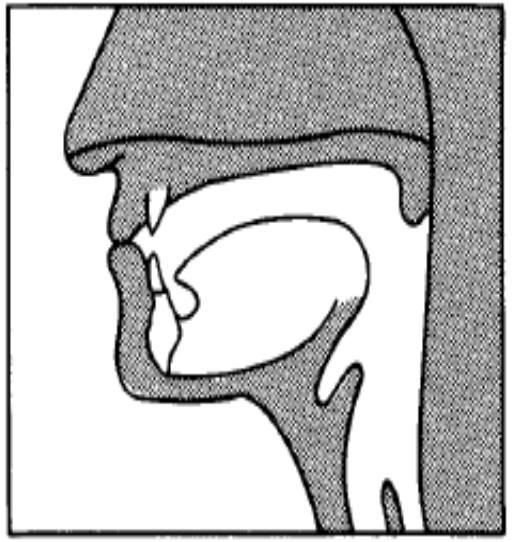
ARTICULATORY PHONETICS

- Consonants are produced by obstructing in some way the flow of air through the vocal tract.
- We will identify the PLACE (or POINT) where the obstruction takes place, and the organs involved.
- The parts of the oral tract such as the tongue and lips which can be used to form speech sounds are called ARTICULATORS.
- The study of them is called ARTICULATORY PHONETICS.

Lips

- This is done by the both lips- /b/ /p/ /m/
- Bin /bɪn/
- pin /pɪn/
- man /mæn/
- Hence **Bilabial**

Bilabial articulation

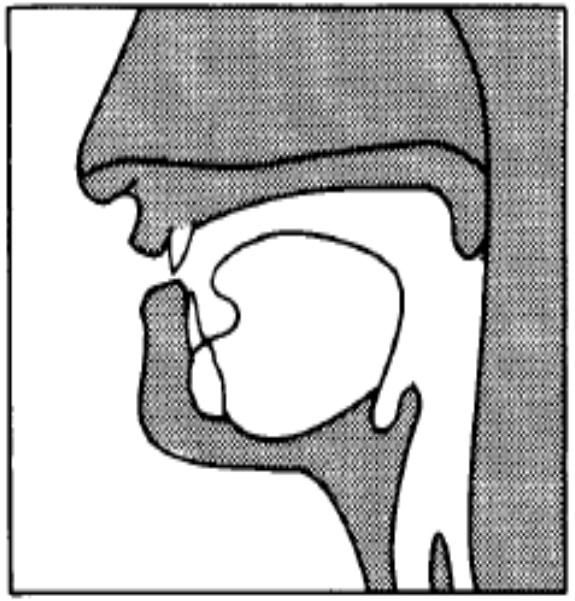


Giegerich, H. 1992. English phonology: An introduction.Cambridge University press.

Lower lip and upper front teeth

- ii. **Labiodental** – produced if the lower lip touches the upper front teeth
- /f/ /v/
- Fan /fæn/
- Van /væn/

Labiodental articulation



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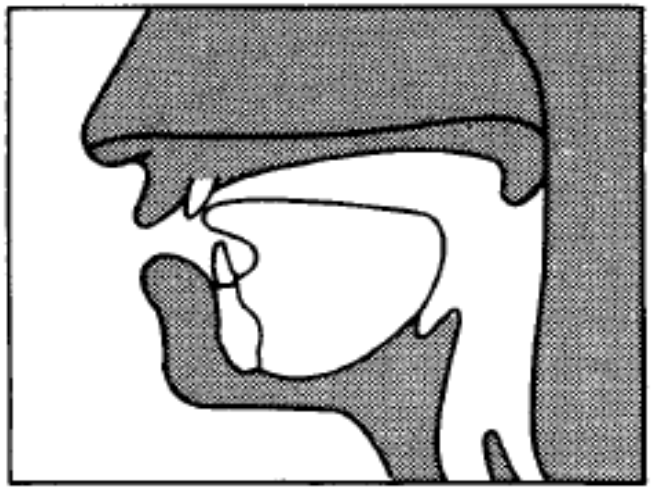
Teeth and the tongue

- iii. **Dental-** occur when the tongue touches the teeth
- The tip of the tongue is raised against the upper incisors, or inserted between the upper and lower incisors,
- Then /ðen/
- Think /θɪŋk/

Dental articulation



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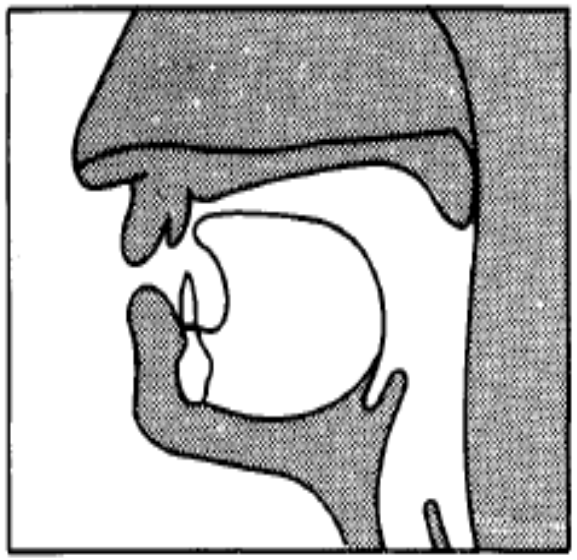
The alveolar ridge and the tongue

- iv.**Alveolar** – when the tongue makes contact with the alveolar ridge
- /t/ /d/ /s/ /z/ /l/ /n/
- Tin /tɪn/
- Din/dɪn/
- Sin/sɪn/
- Zip/zɪp/
- Lip /lɪp/
- Nip /nɪp/

Alveolar articulation



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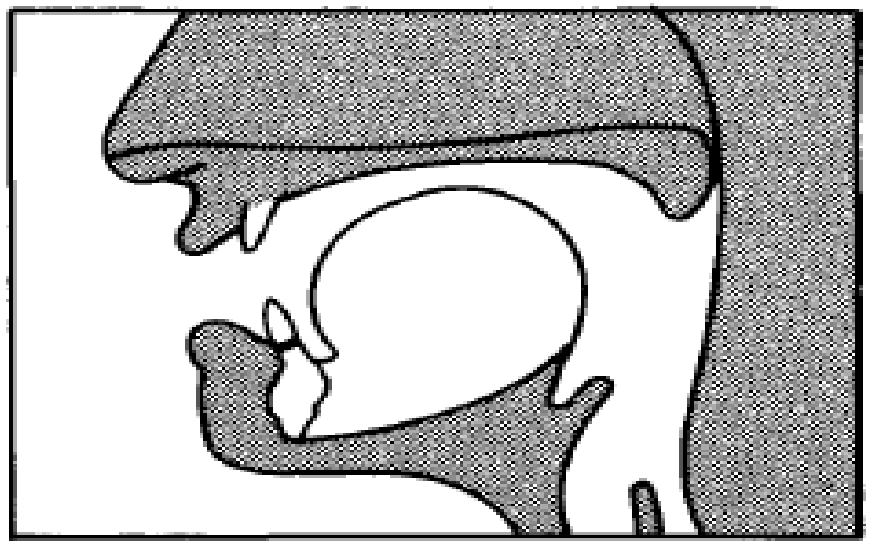
The hard palate

- **Palatal-** involves moving further back to the vocal tract
- Specifically, the front of the tongue is raised towards the palate, slightly further back than in a palato-alveolar sound.
- Yet -/jet/
- University /juːnɪˈvəːsɪti/

Palatal articulation



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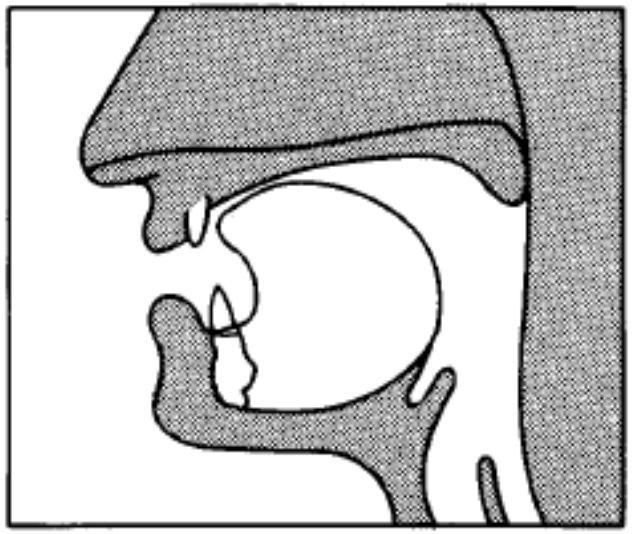
Alveolar-Palatal articulation

- **Post alveolar/palato alveolar**- occur when the tongue makes contact with the upper surface of the mouth a little further back than the alveolar region.
- The front of the tongue - and not just the tip – is raised towards the back of the alveolar ridge and the front of the palate.
- Ship /ʃɪp/
- Measure /mɛʒə/

Post alveolar- articulation



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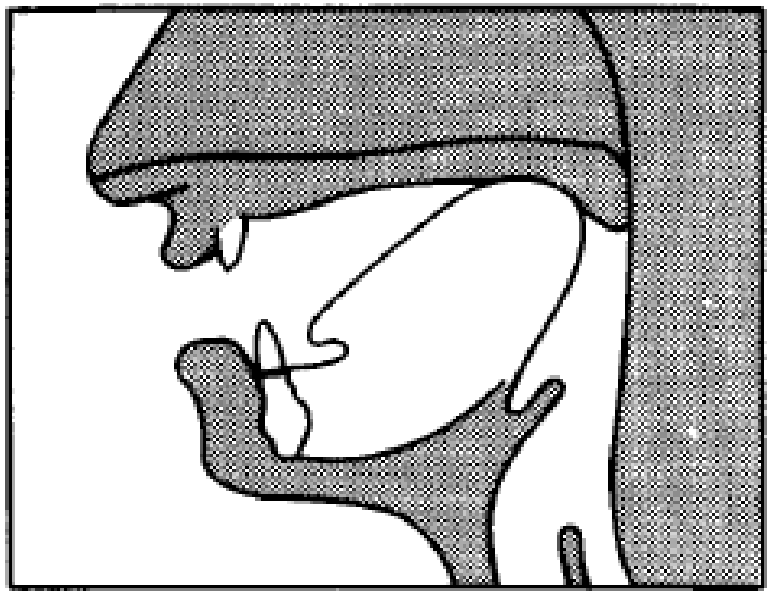
Velum and back of the tongue

- **Velar**- the velum comes into contact with the back part of the tongue
- /k/-
- /g/
- /ŋ /
- Call /kɔːl/
- Girl |gɜːl|
- Sing |sɪŋ|

Velar articulation



- Giegerich, H. 1992. English phonology: An introduction.Cambridge University press.

Glottis

- **Glottal**- a constriction between the vocal cords, inside the larynx has a glottal place of articulation
- /h/
- Hat /hæt/
- Glottal stop

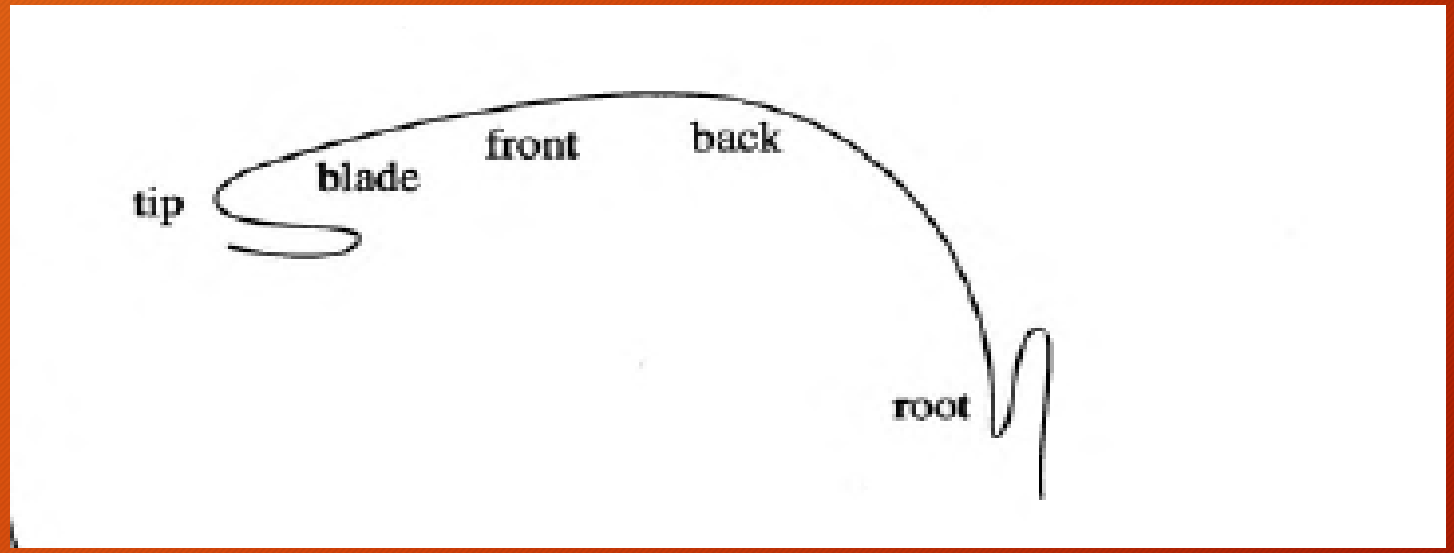
retroflex

- tongue tip curled back past the alveolar ridge
- /ɳ/-
- /ɽ/- in American English

The tongue

- A very important articulator and it can be moved into many different places and different shapes.
- It is usual to divide the tongue into different parts, though there are no clear dividing lines within its structure.
- The tongue on a larger scale with these parts shown: **tip, blade, front, back** and **root.**

Parts of the tongue



From Roach, P. 2009. English phonetics and phonology. Cambridge University Press. Pg.9

Other articulators

- The **larynx** could also be described as an articulator - a very complex and independent one.
- The **jaws** are sometimes called articulators; certainly we move the lower jaw a lot in speaking.
- Not articulators in the same way as the others, because they cannot themselves make contact with other articulators.

- Although there is practically nothing active that we can do with the **nose** and the nasal cavity when speaking, they are a very important part of our equipment for making sounds
- (sometimes called our **vocal apparatus),**
- Particularly, nasal consonants such as m, n.
- The nose and the nasal cavity are not described as articulators in the same sense as the teeth, tongue, alveolar ridge.

- Attempt a description of the following sounds by stating where they are produced:
- /v/
- /z/
- /h/
- /j/
- /d

References

- Davenport, M. & Hannahs, S.J. (2010). *Introducing phonetics and phonology*. London: Routledge.
- Giegerich, H. 1992. English phonology: An introduction. UK: Cambridge University press.
- Roach, P. (2009). *English phonetics and phonology: A practical course*. UK: Cambridge University Press.