

Describing Consonants

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Places of Articulation

→ where sounds are produced (related to the organs of speech)

Labial

→ the lips are the primary articulators

- *bilabial sounds* : /p, b, m/
- *labiodental sounds* : /f, v/

Interdental

→ the tongue is inserted between the upper teeth and lower teeth.

e.g. /θ, ð/

Alveolar

→ the tongue tip or the blade is raised to the alveolar ridge

e.g. /t, d, n, l, r, s, z/

Palato-alveolar

→ the tongue blade is raised to the back part of the alveolar ridge

e.g. /ʃ, ʒ, tʃ, dʒ/

Palatal

→ the front part of the tongue is raised to a point on the hard palate just behind the alveolar ridge

e.g. /j/

Velar

→ raising the back of the tongue to the soft palate or velum

e.g. /k/ → voiceless, oral, velar

/g/ → voiced, oral, velar

/ŋ/ → voiced, nasal, velar

Glottal

→ the vocal cords are the primary articulators

e.g. /h/

Retroflex

→ the tongue tip is curled to touch the back of the alveolar ridge (not commonly used in English)

Try to say these words: row, rye, ray

Pharyngeal

→ articulated with the root of the tongue against the pharynx

Uvular

→ articulated with the back of the tongue against or near the uvula, that is, further back in the mouth than velar consonants

Manner of Articulation

→ describes how the sounds are produced
(related to the airstream)

stops

affricates

glides

fricatives

liquid

Stops

- the sounds are stopped completely in the oral cavity for a brief period

e.g. /p, b, t, d, k, g/ → the oral stops

/m, n, ŋ/ → the nasal stops

- Oral stops are also called “PLOSIVES” because the air that is blocked in the mouth ‘explodes’ when the closure is released.

Fricatives

- the airstream is not completely stopped but is obstructed from flowing freely.

e.g. /s, z, f, v, θ, ð, ʃ, ʒ/

- The air passage, however, is very narrow causing friction (turbulence)

Affricates

- the sounds are produced by a stop closure followed immediately by a slow release (of the closure characteristic of a fricative)

e.g. /tʃ , dʒ/

Liquid

- There is some obstruction of the airstream in the mouth but not enough to cause any real friction

e.g. l (usually called as lateral)

r (usually called approximant)

Glides

- there is little or no obstruction of the airstream in the mouth

e.g. /j, w/

A stop is composed of three phases

- Closure
- Hold (the passage of air from the lungs is blocked)
- Release – the difference in air pressure between the area behind the closure and the atmosphere results in a small explosion

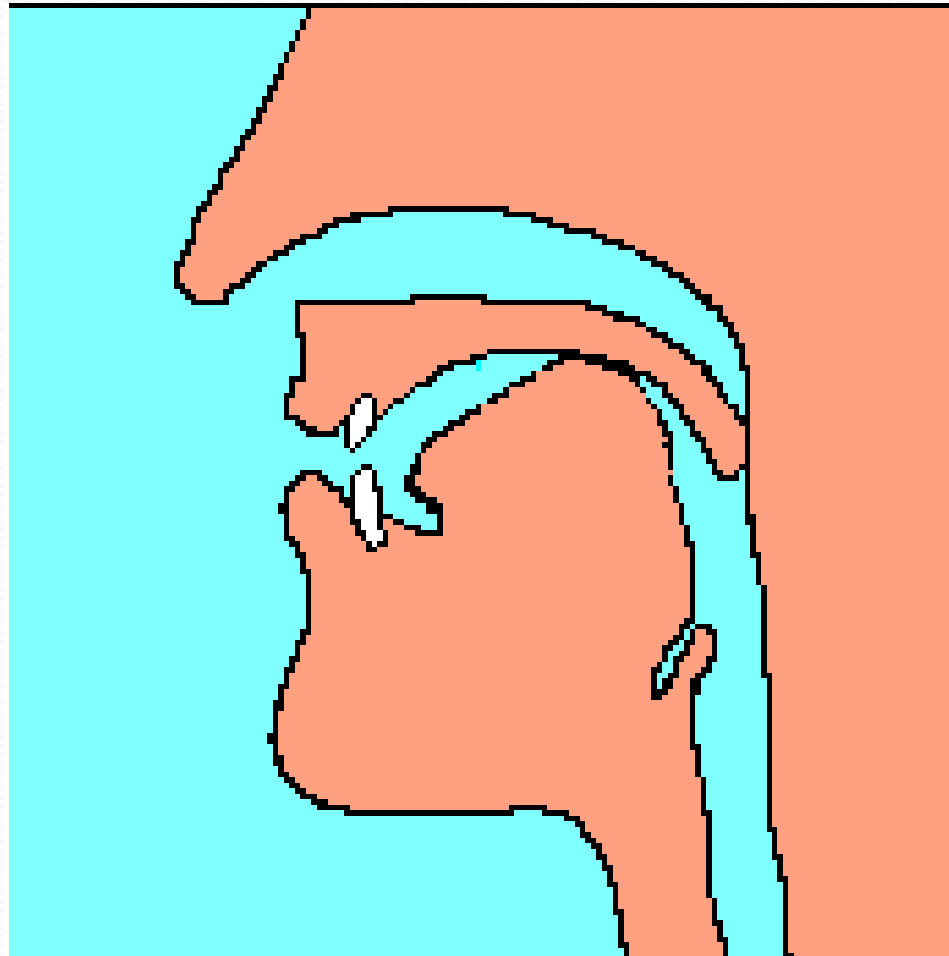
What consonant pair is this?



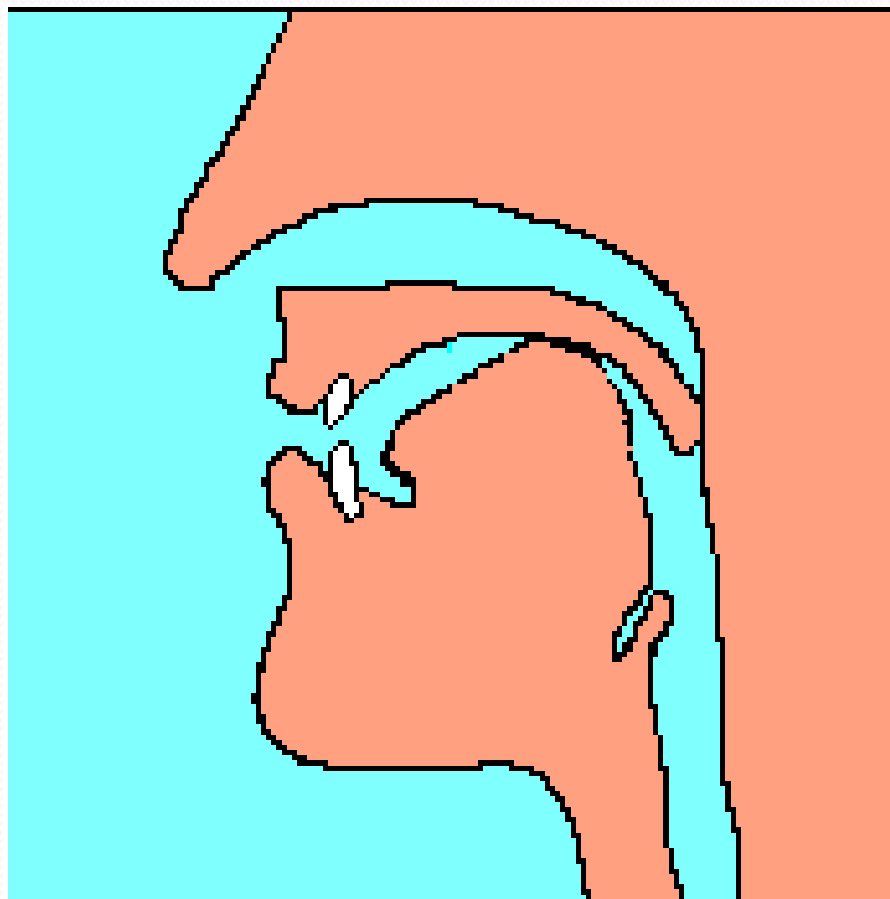
That's right! /p/, /b/



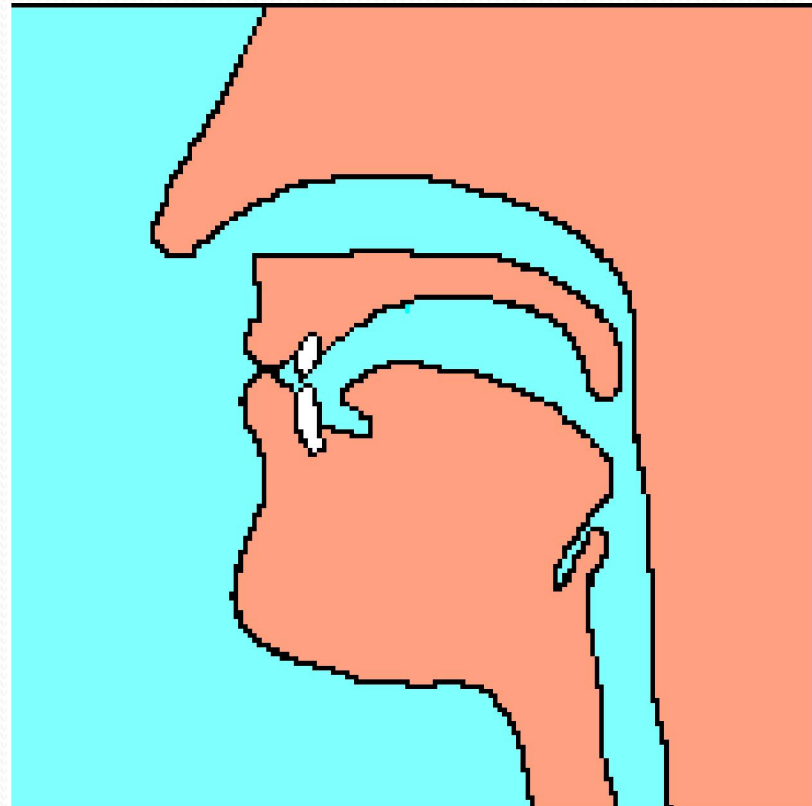
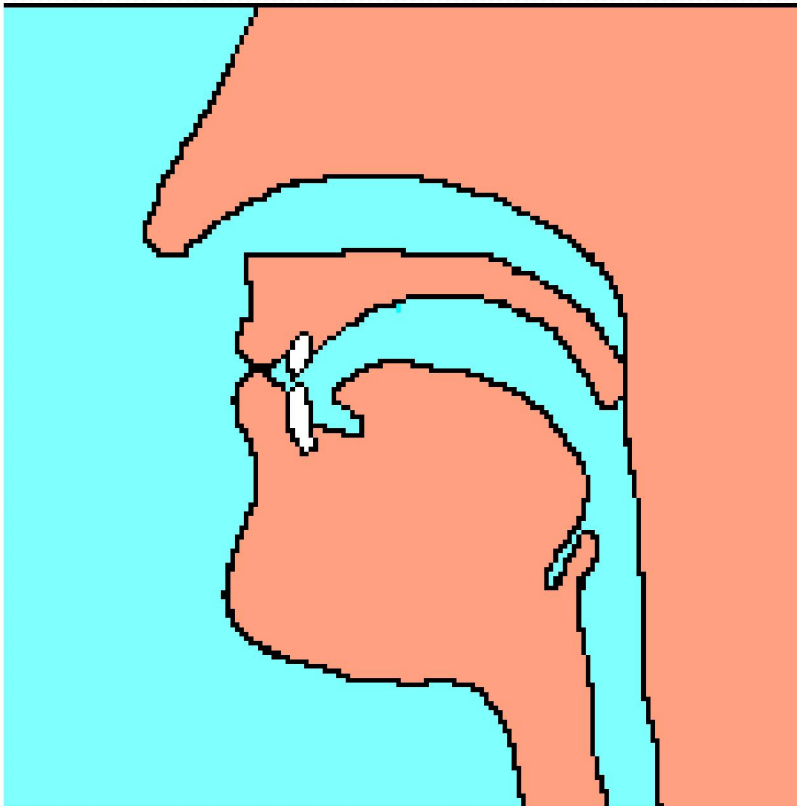
And this?



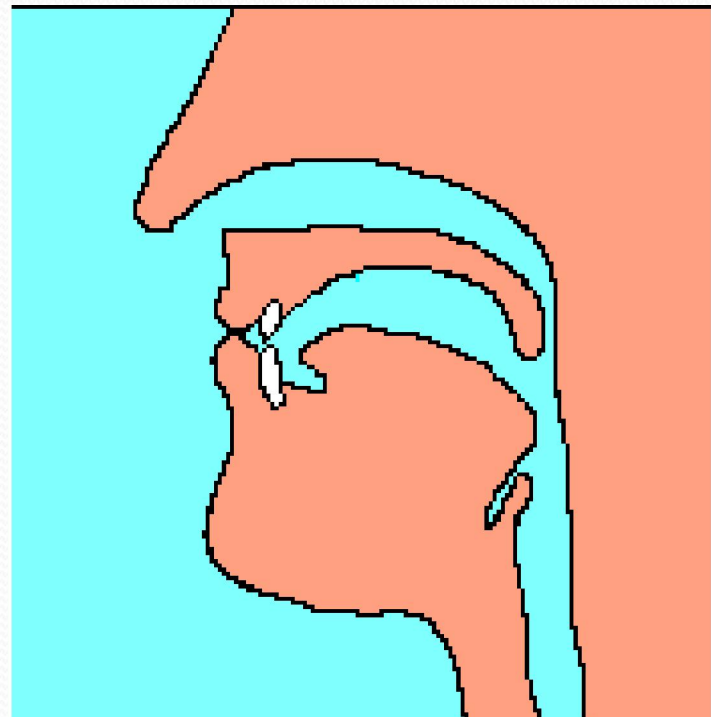
/k/, /g/



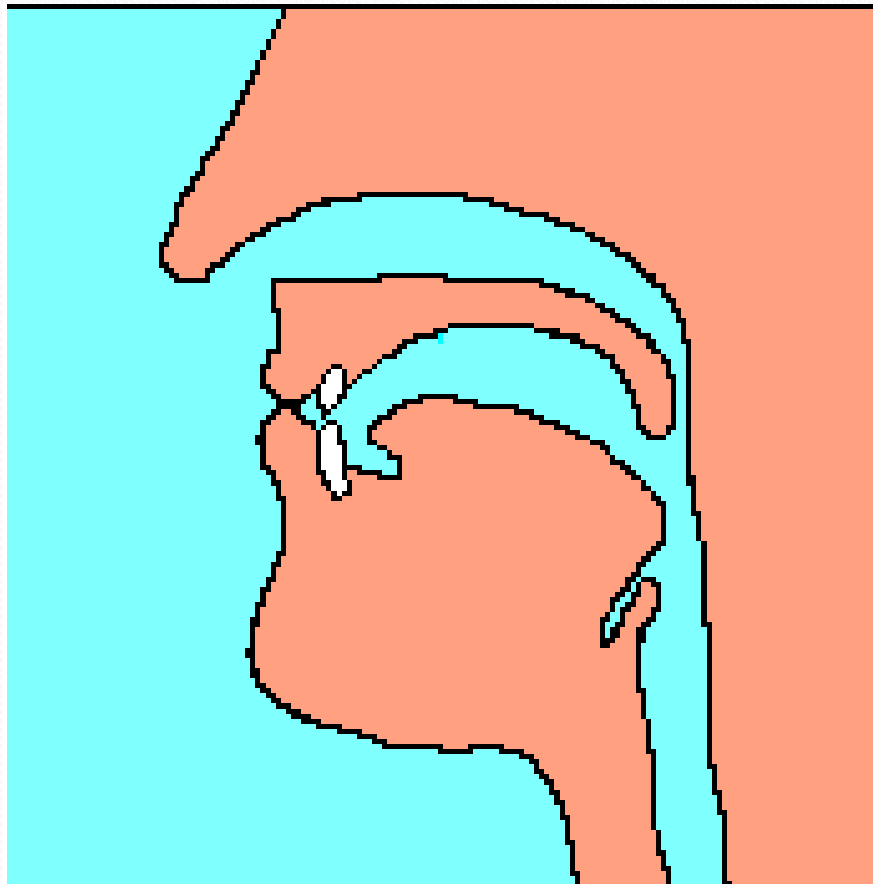
What is the difference between these two slides?



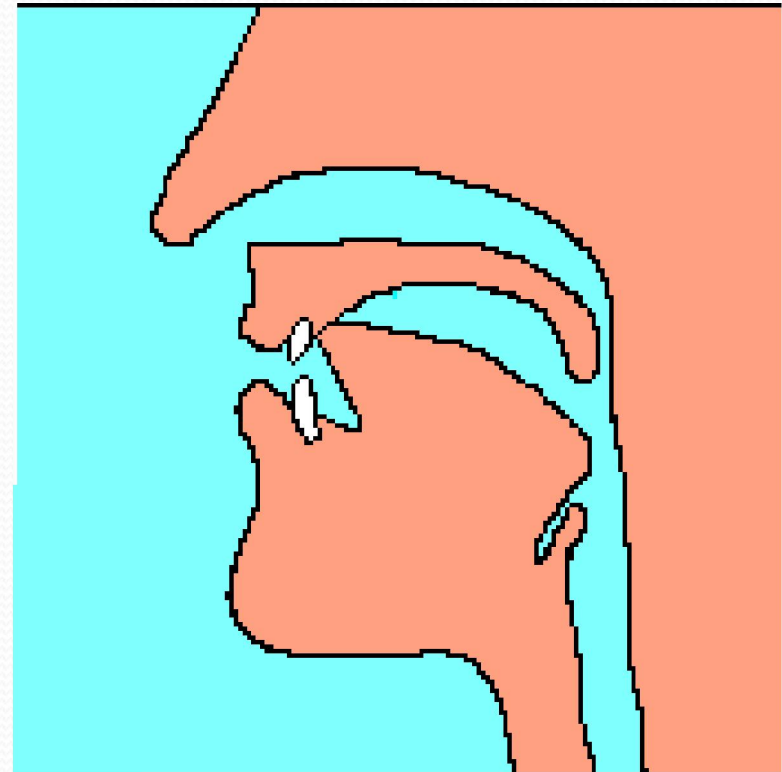
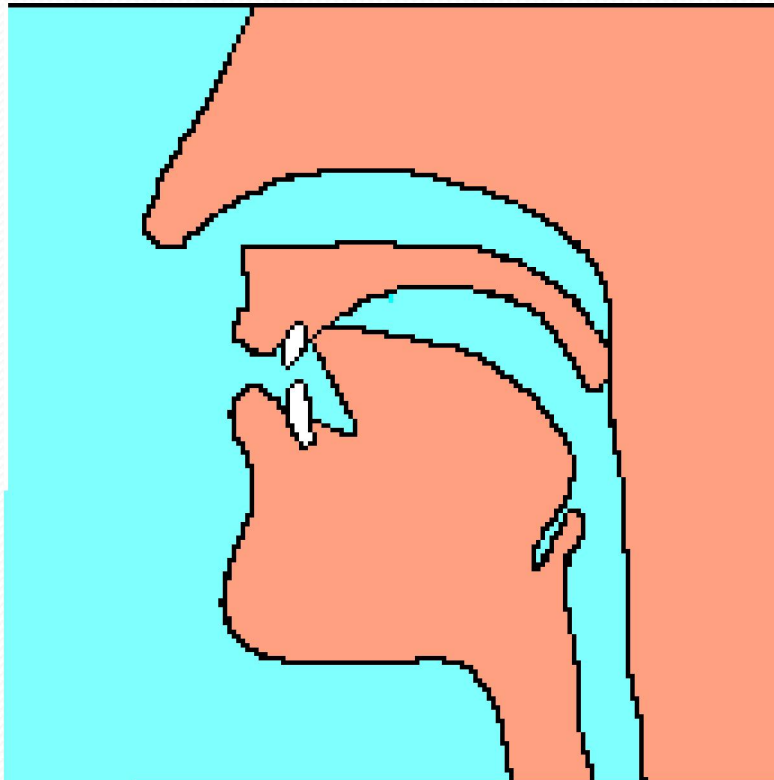
In the first (/b/, /p/) the passage of air to the nose is blocked by the raised velum, in the second this passage is open, giving us a nasal.
What consonant is it?



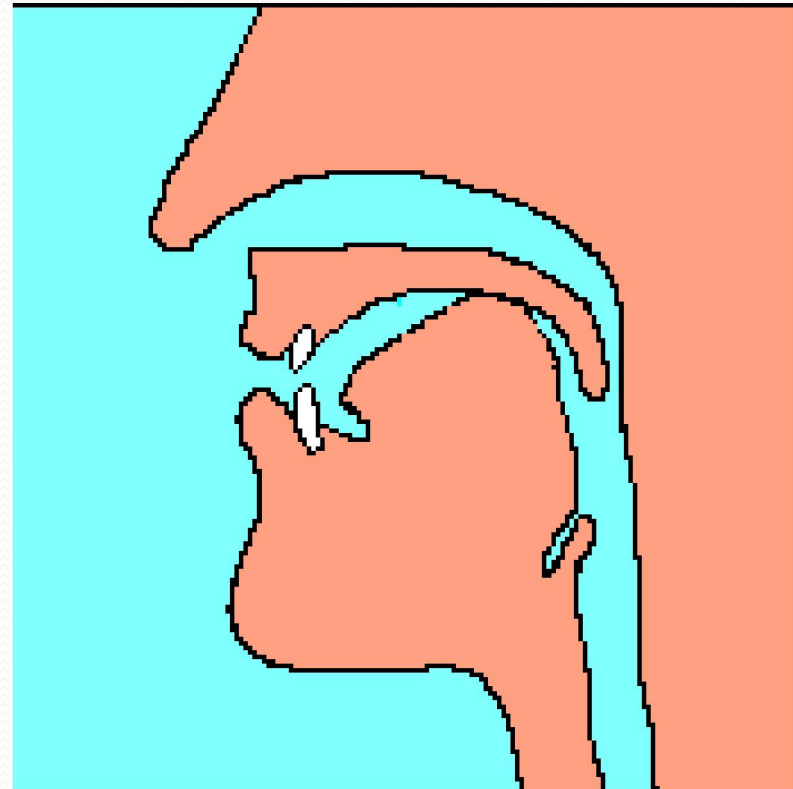
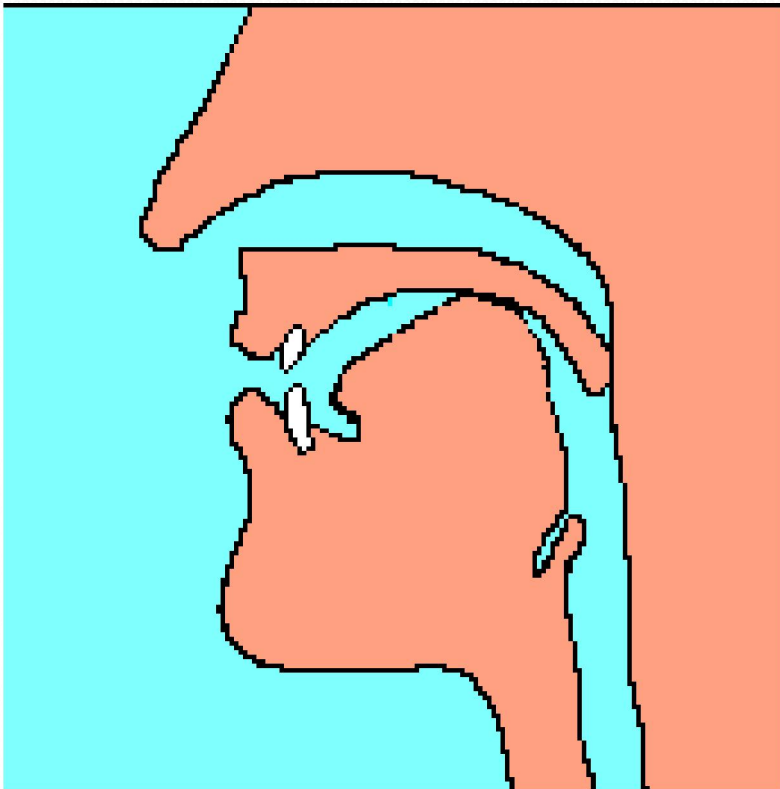
It's /m/



Let's look at other positions – in the alveolar position we have /t/ and /d/, and the nasal /n/:



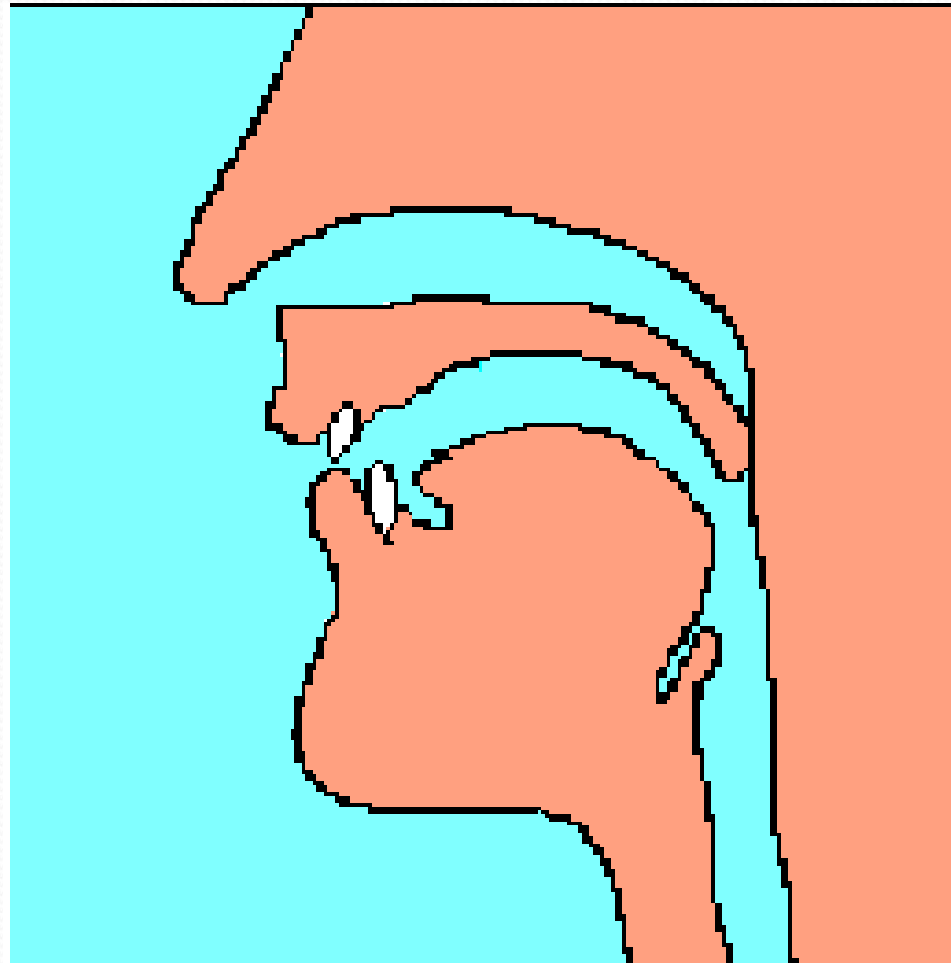
In a similar way at the velum we have
/k/ and /g/, and the nasal /ŋ/



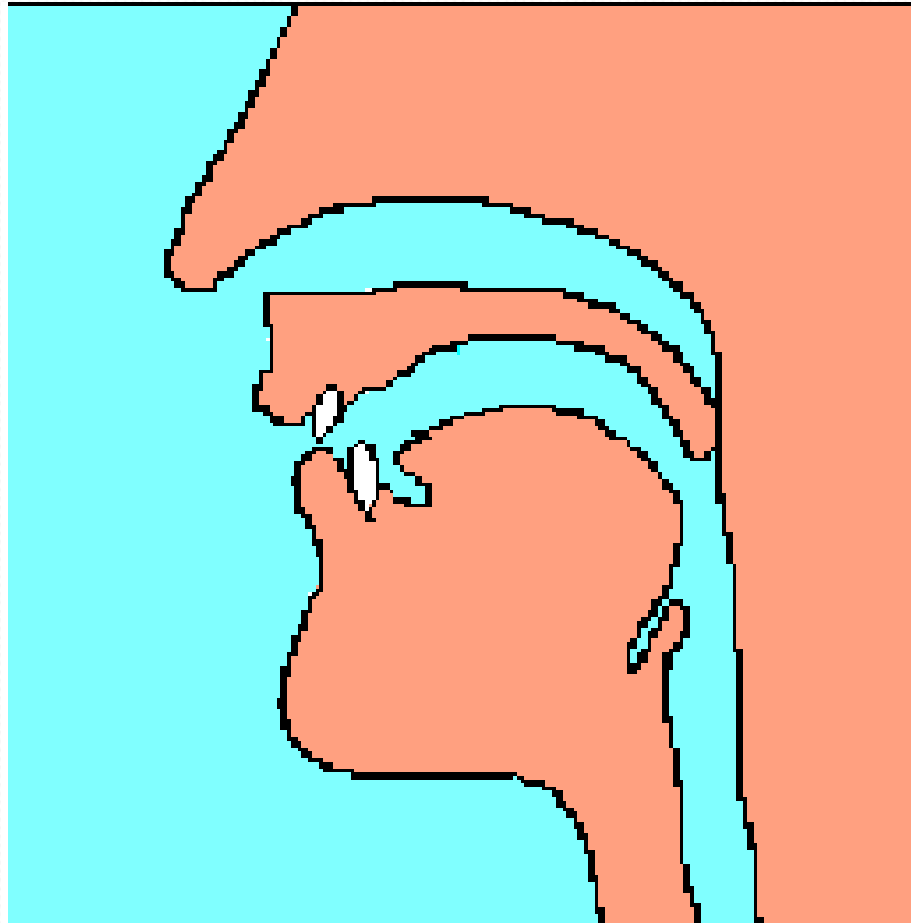
Fricatives

- Are created by forming a constriction through which air from the lungs may pass, but not freely.
- This lack of freedom causes audible turbulence, or friction, hence the name fricative.
- As for stops they may be voiceless or voiced .

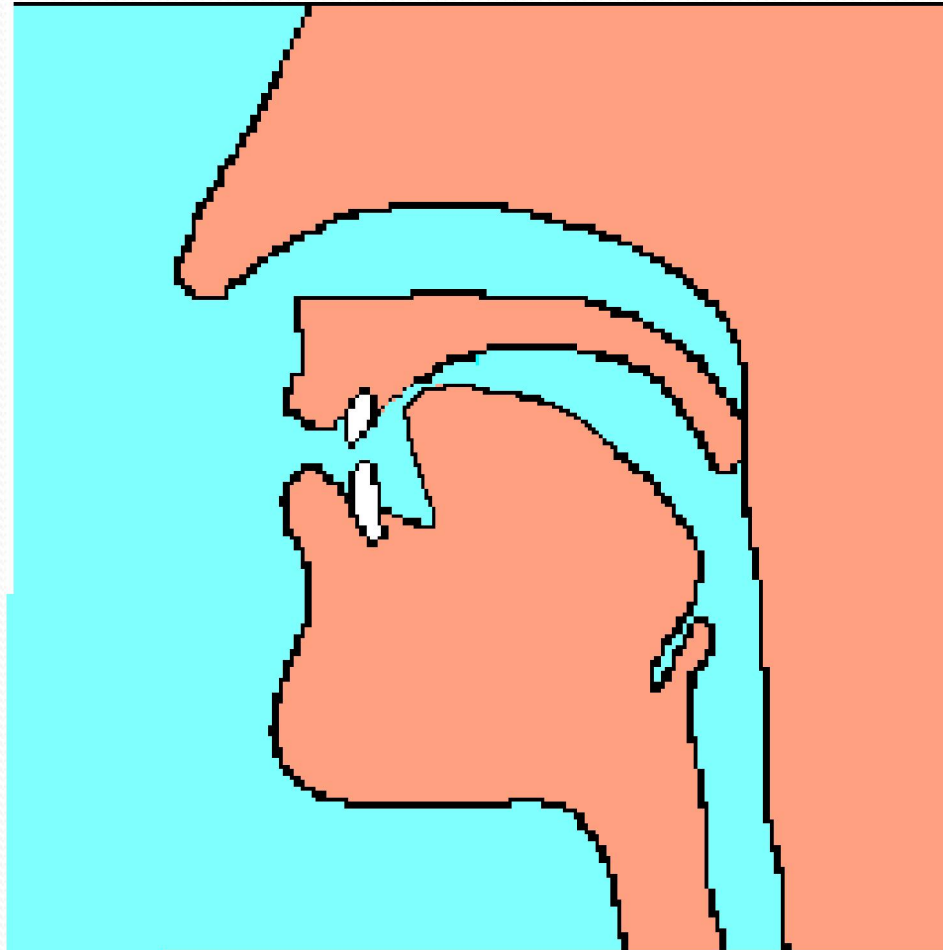
What fricative pair is represented here?



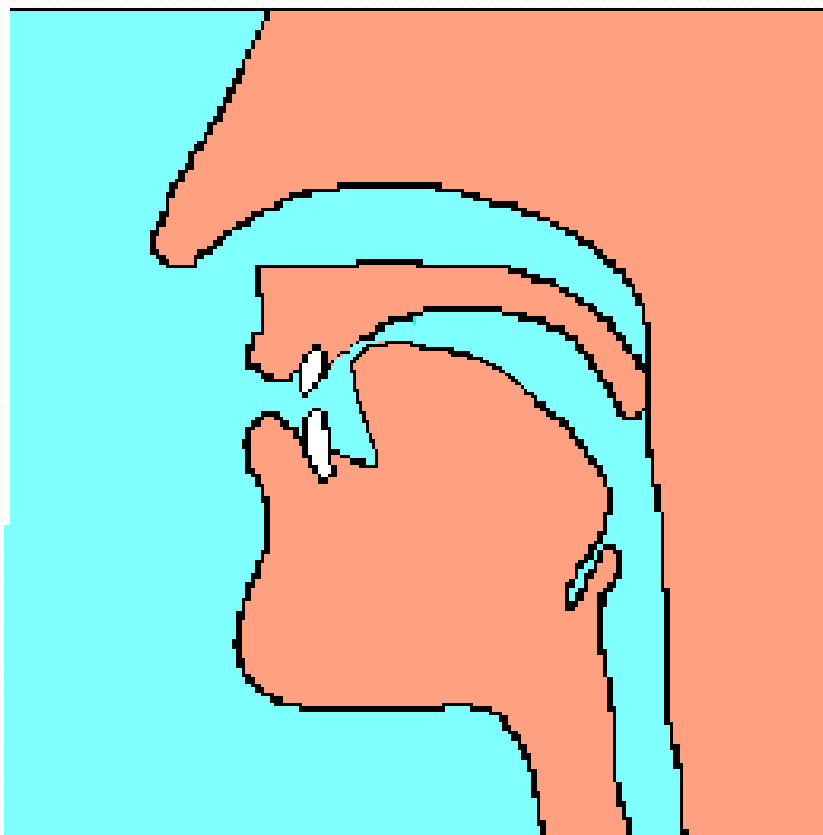
That's right - /f/, and /v/



And here?



This is the post-alveolar pair /s/ and /z/. Note that a small shift of the tongue from the /s/, /z/ position directs the flow of air onto the alveolar ridge.



Manner of Articulation		Places of Articulation						
		Labial	Labio-dental	Inter-dental	Alveolar	Palatal & Palato-alveolar	Velar	Glottal
Stop	Voiceless	p			t		k	
	Voiced	b			d		g	
Nasal	Voiced	m			n		ŋ	
Fricative	Voiceless		f	θ	s	ʃ		h
	Voiced		v	ð	z	ʒ		
Affricate	Voiceless					tʃ		
	Voiced					dʒ		
Liquid	Voiced (lateral)				l			
	Voiced (approximant)				r			
Glide	Voiced					j	w	

Practice

- Analyse the consonants in the word *fricative*

Sounds	± voice	± nasal	place of articulation	manner of articulation