

Place of Articulation		
place	active articulator	passive articulator
bilabial	lower lip	upper lip
labio-dental	lower lip	upper teeth
dental	tongue tip/blade	upper teeth
alveolar	tongue tip/blade	alveolar ridge
palato-alveolar	tongue back	area behind alveolar ridge
palatal	tongue front	hard palate
velar	tongue back	velum
uvular	tongue back	uvula
glottal	vocal cords	vocal cords

Consonants (cont)		
/r/	writer	
/k/	cat	[+cons +high +back]
/k <sup>h</sup> /	kit	
/g/	gorilla	[+cons +high +back +voice]
/ts/	church	[+cons +cor +stri +del rel + high]
/dz		

Manner of Articulation	
manner	description
plosive	involves complete closure
affricate	with friction
fricatives	without friction
nasals	air flows into nasal cavity
glides	semi-vowels
liquids	unhindered airflow

Major Class Features	
consonantal features	
[+syll]	sounds with function as nucleus of syllable
[-syll]	sounds with no function as nucleus of a syllable
[+cons]	sounds with oral stricture
[-cons]	sounds without oral stricture
[+son]	sounds with clear formant pattern
[-son]	sounds without clear formant pattern
place features	
[+cor]	articulated with tongue tip or blade raised
[-cor]	does not involve the front of the tongue
[+ant]	produced in front of the alveolar ridge
[-ant]	produced behind the alveolar ridge

Major Class Features (cont)	
[+lat]	airflow over the tongue (only /l/)
[-lat]	all other sounds
[+delrel]	delayed release
[-delrel]	no delayed release
vocalic features	
[+low]	lowered tongue
[-low]	no lowered tongue
[+high]	tongue raised
[-high]	tongue not raised
[+back]	tongue retracted
[-back]	tongue not retracted
[+front]	tongue fronted
[-front]	tongue not fronted
[+round]	lips rounded
[-round]	lips not rounded
[+tense]	muscular constriction
[-tense]	no muscular constriction

Consonants		
plosives		
/p/	play	[+cons +ant]
/p <sup>h</sup> /	pie	
/b/	bottle	[+cons +ant +voice]
/t/	hit	[+cons +cor + ant]
/t <sup>h</sup> /	tiger	
/d/	dog	[+cons +cor +ant +voice]

Consonant-types		
type	description	members
obstruents	restricted airflow	plosives, affricates, fricatives
sonorants	no restricted airflow	nasals, glides, liquids

manner features	
[+cont]	free airflow through oral cavity
[-cont]	stopped airflow in oral cavity
[+nas]	airflow through the nasal cavity
[-nas]	no airflow through the nasal cavity
[+strid]	with constriction = noisy airflow
[-strid]	without constriction

