

## Full Table of Phone Makeup and Length

SAMPA	Example	Type/ Manner of Articulation	Voiced/ Voiceless	Starts as	Ends as	Cat.	Weight
<b>p</b>	pen, spin, tip	plosive	voiceless	block	block	Con.	8
<b>b</b>	but, web	plosive	voiced	block	block	Con.	7
<b>t</b>	two, sting, bet	plosive	voiceless	block	block	Con.	8
<b>d</b>	do, odd	plosive	voiced	block	block	Con.	7
<b>tS</b>	chair, nature, teach	affricate	voiceless	block	cont fric	Con.	6
<b>dZ</b>	gin, joy, edge	affricate	voiced	block	cont fric	Con.	5
<b>k</b>	cat, kill, queen, thick	plosive	voiceless	block	block	Con.	8
<b>g</b>	go, get, beg	plosive	voiced	block	block	Con.	7
<b>f</b>	fool, enough, leaf	fricative	voiceless	cont fric	cont fric	Con.	4
<b>v</b>	voice, have, of	fricative	voiced	cont fric	cont fric	Con.	3
<b>T</b>	thing, breath	fricative	voiceless	cont fric	cont fric	Con.	4
<b>D</b>	this, breathe	fricative	voiced	cont fric	cont fric	Con.	3
<b>s</b>	see, city, pass	fricative	voiceless	cont fric	cont fric	Con.	4
<b>z</b>	zoo, rose	fricative	voiced	cont fric	cont fric	Con.	3
<b>S</b>	she, sure, emotion, leash	fricative	voiceless	cont fric	cont fric	Con.	4
<b>Z</b>	pleasure, beige	fricative	voiced	cont fric	cont fric	Con.	3
<b>h</b>	ham	fricative	voiceless	cont fric	cont fric	Con.	4
<b>m</b>	man, ham	nasal	voiced	redirect	redirect	Con.	1
<b>n</b>	no, tin	nasal	voiced	redirect	redirect	Con.	1
<b>N</b>	singer, ring	nasal	voiced	redirect	redirect	Con.	1
<b>l</b>	left, bell	lateral	voiced	continuous	continuous	Con.	0
<b>r</b>	run, very	approximant	voiced	continuous	continuous	Con.	0
<b>w</b>	we	semivowel	voiced	continuous	end	Con.	2
<b>j</b>	yes	semivowel	voiced	continuous	end	Con.	2
<b>W</b>	what (Scottish)	approximant	voiceless	continuous	end	Con.	3
<b>x</b>	loch (Scottish)	fricative	voiceless	cont fric	cont fric	Con.	4
<b>A</b>	father, not, law	short				Vow.	0.25
<b>I</b>	city	short				Vow.	0.25
<b>E</b>	bed	short				Vow.	0.25
<b>3`/\`r</b>	bird, winner	short				Vow.	0.25
<b>{</b>	lad, cat, ran	short				Vow.	0.25
<b>u</b>	soon, through	short				Vow.	0.25
<b>@</b>	about	short				Vow.	0.25
<b>jU/ju</b>	use, pupil	diphthong		semivowel	short	Dip.	0.5
<b>i</b>	see	long				Vow.	0.75
<b>V</b>	run, enough	short				Vow.	0.25
<b>U</b>	put	long				Vow.	0.75
<b>e</b>	day	long				Vow.	0.75
<b>O</b>	or, shore	long				Vow.	0.75
<b>a</b>	DNE in GenAm	long				Vow.	0.75
<b>aI</b>	my, height	diphthong		long	short	Dip.	1
<b>OI</b>	boy	diphthong		long	short	Dip.	1
<b>oU/ou</b>	boat	diphthong		short	long	Dip.	1
<b>aU</b>	now	diphthong		long	long	Dip.	1.5
<b>=</b>	ridden	semivowel				Vow.	0.25