



Guide for Parents



Sound	Ages (bracketed) ages indicate sound emerging; non-bracketed ages indicate sound in use	Sound specific processes
p	1;6 - 2;0 →	
b	1;6 - 2;0 →	
m	1;6 - 2;0 →	
w	1;6 - 2;0 →	
t	1;6 - 2;0 →	
d	1;6 - 2;0 →	
n	1;6 - 2;0 →	
ŋ (ng)	2;0 - 2;6 →	
k	(2;0 - 3;0) 3;0 - 3;6 →	May use as [t] until 3;6 - 4;0
g	(2;0 - 3;0) 3;0 - 3;6 →	May use as [d] until 3;6 - 4;0
h	2;0 - 3;0 →	
f	2;6 - 3;0 →	May use as [p] or [b] until 2;6 - 3;0
s	(2;6 - 3;0) 3;0 - 3;6 →	May use as [t] or [d] until 3;6 May be distorted to "th" until 7yrs old (Porter & Hodson 2001)
j (y)	2;6 - 3;0 →	
ʃ (sh)	(3;0 - 4;0) 4;0 - 4;6 →	May use as [t] or [d] until 3;0 May use as [s] until 4;0 May be said in the middle of the mouth (palate) until 4;6
tʃ (ch)	(3;0 - 4;6) > 4;6 →	May use as [t] or [d] until 4;0 May use as [ts] until 4;0 - 4;6 May be said in the middle of the mouth (palate) until 4;6
l	(3;0 - 3;6) 3;6 - 4;0 →	May use as [w] or "y" until 5;0
v	(3;6 - 4;0) 4;0 - 4;6 →	May use as [b] until 4;0
z	(3;6 - 4;0) 4;0 - 4;6 →	May use as [d] until 4;0
ʒ (zh)	(4;0 - 4;6) > 4;6 →	May be said in the middle of the mouth (palate) until 4;6
dʒ (j)	(4;0 - 4;6) > 4;6 →	May use as [z] until 4;0 - 4;6 May use as [d] until 4;0 May be said in the middle of the mouth (palate) until 4;6
r	(4;0 - 4;6) > 4;6 → 6;6	May use as [w] or "y" until 5;0 "r" emerging until 6;6
θ (th)	> 4;6 →	7;0 May use as [f] or [v] until 7yrs "th" emerging from 4;6
ð (th)	> 4;6 →	7;0 May use as [d] until 4;0 May use as [f] or [v] until 7yrs "th" emerging from 4;6



How well words can be understood by parents (or primary carers)



By 18 months a child's speech is normally 25% intelligible



By 24 months a child's speech is normally 50 -75% intelligible



By 36 months a child's speech is normally 75-100% intelligible

Source: Lynch, J.L., Brookshire, B.L. and Fox, D.R. (1980). *A Parent - Child Cleft Palate Curriculum: Developing Speech and Language*. CC Publications, Oregon. Page 102 (cited by Bowen, 1998)

Consonant Clusters

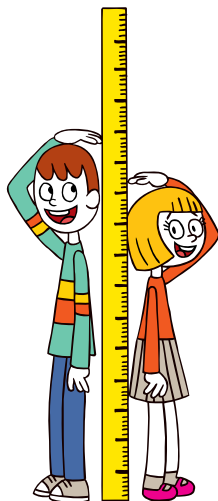
(Adapted from McLeod, Doorn, & Reed, 2001)

Clusters are (at least) two consonant sounds said together, for example, clown, flower, stop. Clusters can be found at the beginning, middle or end of many English words, some words even have *more than one* cluster.

Here are a few examples of words with clusters in them: plan, flag, mister, hospital, gasp, bolt, square (skware), spring, three, minstrel, strawberry (sometimes said strawbry which makes two clusters in one word), reads, walks.

Sounds spelled with two letters do not always make a cluster, for example, all of these sounds are written with two letters, but only make one consonant sound: sh, ch, th. The letter 'x' is only one letter, but often makes two consonant sounds "ks" so could be a cluster in a word, e.g. "six".

Children as young as 2 years may master some clusters, yet other children will still struggle at 8-9 years old.



Clusters	Ages (adapted from McLeod et al)
tw, cl	3;6 – 4;0
sp, st, sk	4;6 – 6;0 (boys tending to be later than girls)
sm, sn	5;6 – 7;0 (boys tending to be later than girls)
sw	4;6 – 7;0
sl	6;0 – 7;0
pl, bl, cl, gl, fl	4;0 – 5;6
pr, br, tr, dr, cr, gr, fr	4;6 – 6;0
thr	7;0
skw (square)	4;6 – 7;0 (boys tending to be later than girls)
spl	6;0 – 7;0
spr, str, scr	5;0 – 8;0

Stages of cluster emergence:

- 1: One sound is used, while the other is omitted (blue → bue or lue)
- 2: Both sounds are marked in some way (blue → bwue)
- 3: Both sounds are used appropriately (blue → blue)

Bowen, C. (1998) Typical speech development. Retrieved from: <http://speech-language-therapy.com/acquisition.html> on 27.07.09

Bowen, C. (1999) *Lisping: when /s/ and /z/ are hard to say*. Retrieved from URL <http://www.speech-language-therapy.com/lisping.htm> on 21.07.09

Broomfield, J. (2007) *Current Issues in School-Age Phonology - The Kite*. Project used at "South West Region Specific Interest Group in School age Disorders of Communication" 3rd April 2007

Dodd, B., Hua, Z., Crosbie, S., Holm, A., & Ozanne, A. (2002) *Diagnostic Evaluation of Articulation and Phonology*. London: Harcourt Assessment

Grunwell, P (1985) PACS Development Assessment

Leroy M., Morgenstern A. (2005) *Reduplication before two years old*. Hurch, Bernhard (ed.) *Studies on Reduplication*. Berlin: Mouton de Gruyter. pp.478-494. Retrieved from URL <http://hal-ens-lyon.ccsd.cnrs.fr/docs/00/11/73/55/DOC/Reduplication.doc> on 11.08.09

McLeod, S., & Bleile, K. (2003) *Neurological and developmental foundations of speech acquisition*. American Speech-Language-Hearing Association Convention, Chicago, November

McLeod, S., Doorn J. & Reed, V. (2001) *Normal acquisition of consonant clusters*. *American Journal of Speech-Language Pathology*, May, 10, 99-110. American Speech-Language-Hearing Association