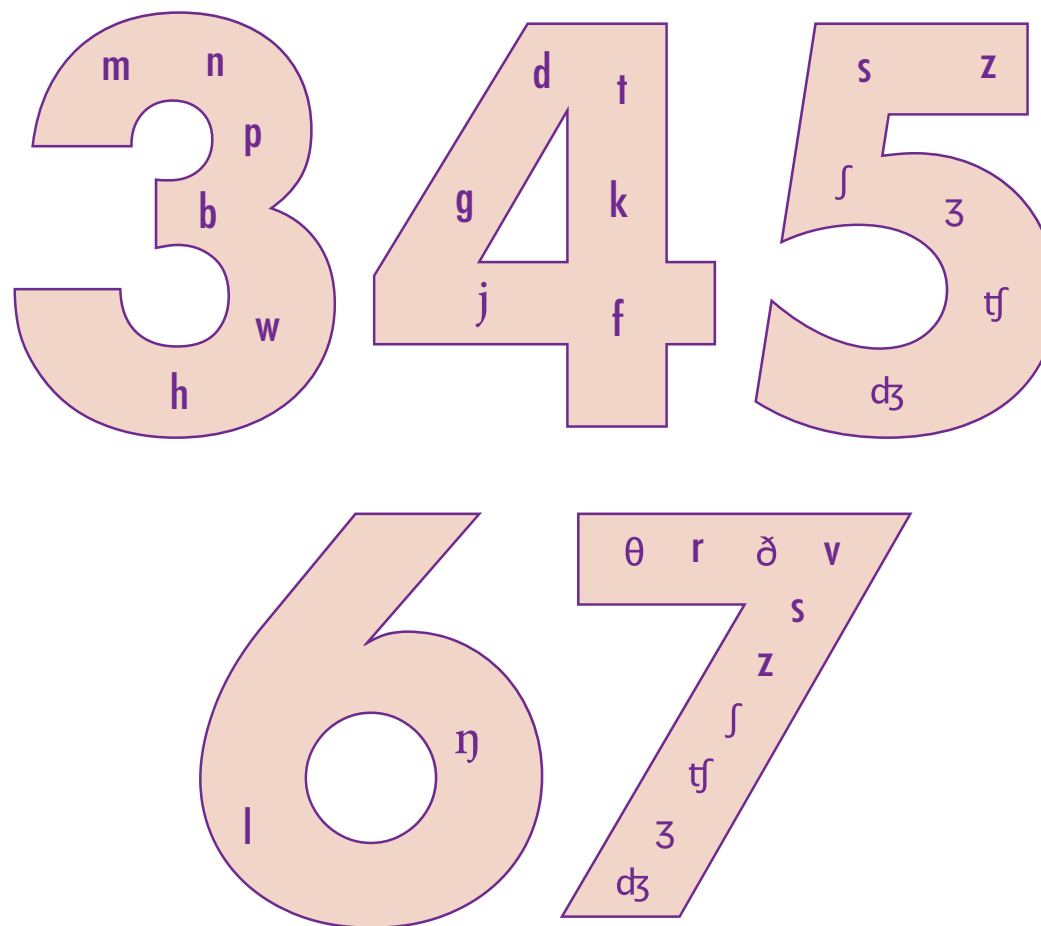


Developmental Articulation



/ʃ/ as in shoe

/θ/ unvoiced "th" as in thumb

/tʃ/ as in chair

/ð/ voiced "th" as in this

/dʒ/ as in jam

/ŋ/ as in ring

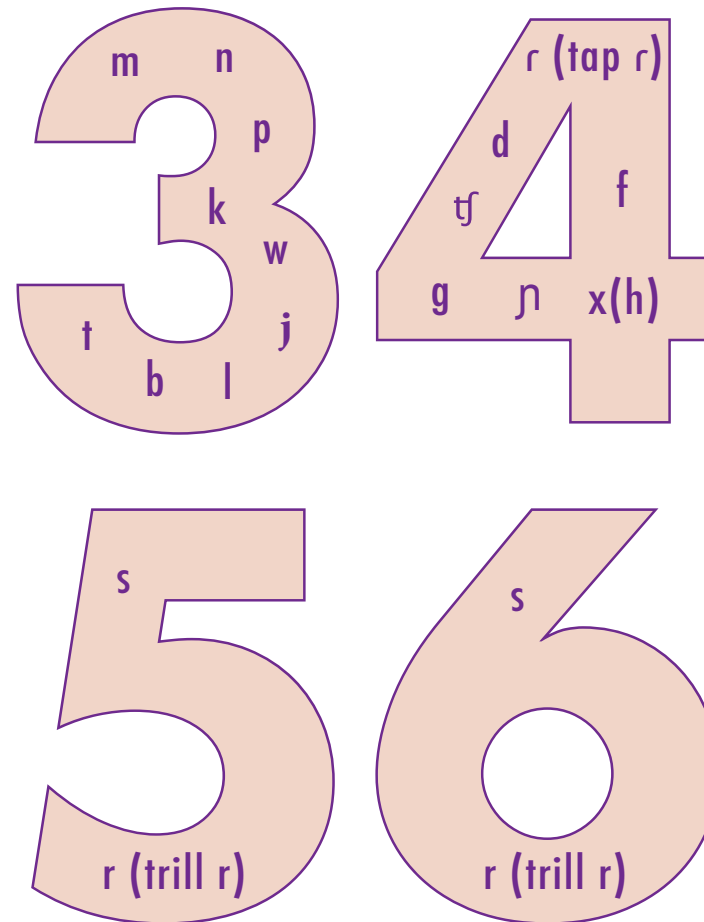
/j/ as in jam

/ʒ/ as in vision

** Please note that phonemes developing at age five are emerging, and not expected to be fully stable until age 7.

Ronald Goldman and Macalynne Fristoe. (2000) Goldman-Fristoe Test of Articulation-2, Circle Pines, MN; Smit, A.B., Hand, L., Freilinger, J.J., Bernthal, J.E., & Bird, A. (1990). The Iowa articulation norms project and its Nebraska replication. *Journal of Speech and Hearing Disorders*, 779-798.

Spanish Developmental Articulation



/ɲ/ as in mañana
tap /r/ as in caro

/tʃ/ as in chico
/x(h)/ as in jabon

trill /r/ as in carro

Spanish Phoneme Development (90% mastery)

** Note: Development of phonemes varies greatly upon the dialect spoken.

Data from: <http://www.asha.org/uploadedFiles/practice/multicultural/SpanishPhonemicInventory.pdf>