

<u>Consonant phonemes</u> are blocked by the tongue, teeth, or lips and can be voiced (vibrate the vocal cords) or unvoiced (no vibration).

There are **25** consonant phonemes that differ from each other by manner and place of articulation. Manner refers to how the sound is made (i.e. the production of airflow through the mouth.) Place refers to where the sound is made (i.e. the position of the lips, teeth, and tongue.)

The chart below shows pairs of phonemes (i.e. /b/ and /p/) that are articulated in the same place and manner; the only difference is that one is voiced and the other is unvoiced. These pairs are often difficult for beginning and struggling readers to discriminate because of the identical articulation.

	stop, on lips	stop, tongue on ridge behind teeth	stop, back of throat	affricate, tongue on roof of mouth	fricative, teeth on lip	fricative, tongue on ridge behind teeth	fricative, tongue between teeth
voiced	/b/	/d/	/g/	/j/	/v/	/z/	/th/ (that)
unvoiced	/p/	/t/	/k/	/ch/	/f/	/s/	/th/ (thin)

In addition to consonant phonemes that cause vibration in the vocal cords, three nasal phonemes (/n/, /m/, and /ng/) are spoken with resonance, or reverberation, in the nose. These phonemes often get "get lost in articulation" during segmenting tasks and spelling, especially in words that contain final blends, such as *hand*, *bent*, *limp*, and *pink* (Moats, 2005).

## One consideration when teaching consonant phonemes:

When thinking about manner of articulation, consonant phonemes can be continuous sounds (also known as liquid sounds, which are able to be held until we run out of breath) or stop sounds (which are made with one burst of sound). When teaching beginning and struggling readers to decode, it is recommended to start with continuous phonemes in the initial position because 1) they are easier to blend than stop consonants, and 2) children are less likely to add a schwa to the end of continuous sounds.

continuous	/m/, /n/, /s/, /z/, /f/, /v/, /l/, /r/, /sh/, /th/
stop	/b/, /p/, /d/,/t/ /g/, /k/, /j/, /ch/

*Note:* Remember, a **grapheme** is the letter or letter combination that represents a phoneme.