



Vowel phonemes are open (the airflow is unobstructed) and voiced (vibrate the vocal cords). They are the heart of every syllable. There are 20 vowel phonemes, including 3 r-controlled vowels.

Vowel phonemes are challenging for reading and spelling because:

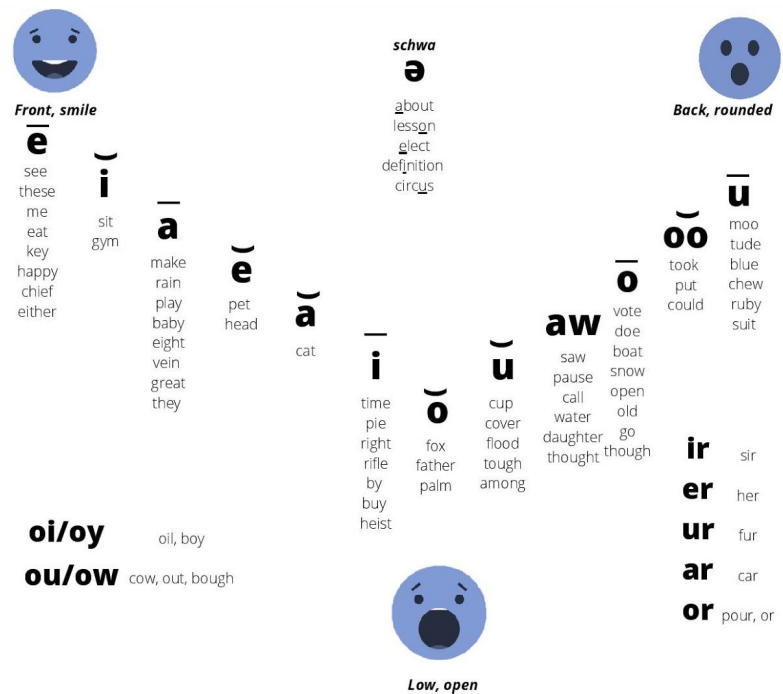
1. The articulatory gestures (mouth positions) between the vowel phonemes are subtle.
2. One phoneme can have several different spellings (for example: /ā/ = a-e, ai, a, ay, ea, eigh).
3. A grapheme can represent different vowel phonemes (for example: ea = /ē/ in bead, /ě/ in head, /ā/ in steak).

The **Vowel Valley** below, shows vowel phonemes (and their graphemes) according to their proximity in articulation. For example, the long e sound (as in "see" and "these") is produced similarly to the short i sound (as in "sit" and "gym.") Vowel phonemes that are close in articulation are easily confused. Teachers can become more aware of student confusion by becoming familiar with the possible confusions. The images can also help draw students' attention to the differences.



The Vowel Valley

(Moats, 2010)



All credit to: Moats, L.C. (2010) Speech to Print: Language Essentials for Teachers. Baltimore: Paul H. Brookes.



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In addition to short and long vowels, there are 3 other vowel categories:

1. Schwa /ə/: A deflated vowel phoneme commonly found in the unstressed syllable of a multi-syllabic word. Commonly schwa sounds more like /ĭ/ or /ĕ/. For example, “problem” and “carrot” contain a schwa in the second syllable. A schwa cannot easily be “sounded out” in spelling.
2. Diphthongs (/oi/ and /ou/): These two vowel phonemes glide in the middle. The mouth position shifts while producing the phoneme. For example, *boy*, *coil* and *mouse* contain diphthongs.
3. R-controlled (/er/, /ar/, /or/): When vowels are followed by /r/, their identity is changed. In /er/, the vowel phoneme and /r/ are indivisible, but sometimes the vowel maybe sightly separated but still changed by /r/, as in /ar/ and /or/.