

Voicing

If we compare the /s/ in “Sue” with the /z/ in “zoo”, the only difference is that we vibrate our vocal folds when we say the /z/ in zoo. There is really no other difference between these sounds. The vocal folds are located right behind your Adam’s apple and they vibrate very quickly when we produce most of the sounds of English. You can feel this vibration clearly if you say a word like “buzz” and hold the /z/ at the end. Place your hand on your throat, and you should feel strong vibrations. Now whisper the same word, and notice how the vibration isn’t there. You should also be able to feel that there is no vibration at the end of the word “bus”. English has eight pairs of sounds which differ only because of these vibrations.

Voiced and unvoiced sounds

English has 8 pairs of consonants that are different only because one is unvoiced and the other is voiced.

Unvoiced	Voiced
/p/ as in pie	/b/ as in buy
/t/ as in tie	/d/ as in die
/k/ as in came	/g/ as in game
/tʃ/ as in choke	/dʒ/ as in joke
/f/ as in fan	/v/ as in van
/θ/ as in thin	/ð/ as in this
/s/ as in sue	/z/ as in zoo
/ʃ/ as in shoe	/ʒ/ as in measure

Since all the vowels of English are voiced, we have a total of nine unvoiced sounds (the 8 listed above plus the /h/ sound which doesn’t have a voiced version). With some of the sounds, you can feel that there is no vibration by holding your hand to your throat, but with others it’s not so easy. It might make sense to just memorize the nine sounds. You can even use a mnemonic device such as the sentence below to help you.

Kate Told Pete He **SH**ould **CH**ange **S**ome **TH**ings **F**ast

Now listen to what happens when voiced and unvoiced consonants come at the end of a word.

Unvoiced	Voiced	Contrast
price	prize	/s/ vs. /z/
leaf	leave	/f/ vs. /v/
lap	lab	/p/ vs. /b/

Ice vs. Eyes

The words “ice” and “eyes” are spelled very differently, but they are actually minimal pairs ending on different sounds - /s/ and /z/.

ice /aɪs/

eyes /aɪz/

Native speakers can clearly hear the difference between these similar words, but how they do it may surprise you. The sounds take just about as long to say, but this is how they might look.

ice /aɪs/ (unvoiced)

aɪ	s
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eyes /aɪz/ voiced

aɪ	z
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The most important difference is that the vowel is longer before the voiced consonant. This is always true in English; the vowel is lengthened before a final voiced consonant. This type of pronunciation rules are different than many grammar or spelling rules because there are no exceptions. This is also an example of the kind of rule that we don't have to learn in school – most native speakers absorb this idea as babies and do it regularly by the age of three. This also explains why native speakers are usually unaware of this process. Try asking a native speaker the difference in pronunciation between the words “ice” and “eyes” and you might get some interesting answers. If you listen to them say the words naturally, on the other hand, they will follow the rule.

	Unvoiced	Voiced	Contrast
1	price	prize	/s/ vs. /z/
2	loose	lose	
3	place	plays	
4	use (noun)	use (verb)	
5	leaf	leave	/f/ vs. /v/
6	half	have	
7	belief	believe	
8	etch	edge	/tʃ/ vs. /dʒ/
9	"h"	age	
10	search	surge	