

Talk a Lot

Learn the International Phonetic Alphabet (IPA)

Spelling and Sounds – Consonant Clusters

A consonant cluster is a group of two or more consonant letters together in a word. For example, in the word “**brilliant**”, “br” is a consonant cluster, as is “ll”, and also “nt”. Consonant clusters are also sometimes known as “consonant blends”. Focusing on consonant clusters and vowel clusters (see p.18.48) is useful if you want to look at some of the differences between spelling and sounds in English words.

Consonant clusters can occur at the beginning (an **initial** consonant cluster), in the middle (a **medial** consonant cluster) or at the end of a syllable (a **final** consonant cluster). For example, in the word brilliant – /'brɪl.jənt/ – which has two syllables, there is a consonant cluster at the beginning of the first syllable (“br”), at the end of the first syllable (“ll”), and at the end of the second syllable (“nt”). They can also occur in the middle of a syllable, for example the consonant cluster “ch” in the middle of the word “ache”.

We can include consonant *digraphs* within the term “consonant clusters”. A consonant digraph is where two consecutive consonant letters in the spelling of a word are used together to make a single sound. For example, in the word “**know**”, “kn” is a digraph which represents a single sound: /n/. There are also digraphs which make vowel sounds, for example, in the word “beach”, “ea” is a digraph which represents a single vowel sound: /i:/ (see p.18.48).

There are 21 consonant *letters* in the English alphabet, and 25 consonant *sounds* in spoken English. Therefore we need some consonant digraphs to represent consonant sounds because there are more consonant sounds than consonant letters. For example, there is no single letter in English that represents the sound /ʃ/. We need to use a digraph – two consonant letters together – and we end up with “sh” to represent /ʃ/. Similarly, there is no single letter that represents the sound /ð/. Therefore we need to use a digraph – two consonant letters together – and we end up with “th” to represent /ð/. Confusion can occur because the digraph “th” also represents another, different consonant sound: /θ/.

Part of the reason for the existence of digraphs – where two letters make one sound – is that English is an old language, and over hundreds of years the pronunciation of different words has changed. Some sounds that used to be pronounced in words are no longer pronounced, although the spelling has remained the same. Some used to be pronounced, but aren’t any more. For example, up until the mid-17th century “knife” was pronounced in Old English as a three-syllable word, with the /k/, the /n/, and the final vowel sound all heard, like this: /k'nɪf.ə/.

As we have seen in our study of connected speech (see p.11.1), consonants don’t like to rub up against each other, and elision (where we lose a consonant sound) or assimilation (where a consonant sound changes) often occur when two consonant sounds meet, to make the syllable or word easier to pronounce. So it is no surprise then that the longer the consonant cluster, the more difficult it will be to pronounce, and the more likely it will be that either elision or assimilation take place. For example, try saying: “**twelfths**” out loud. This word crowbars seven different consonant letters into one syllable, which in turn produces six distinct consonant sounds: /t w e l f θ s/! Another example of a problematic word is “**crisps**”, which is pronounced: /krisps/. Try to pronounce all of the five distinct consonant sounds (in two consonant clusters) in just one syllable. Tricky!

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Generally speaking most consonant clusters are only two or three letters long. The longest initial consonant cluster can be three letters long, e.g. “spr-” in the word “**sprint**”, whilst the longest final consonant cluster will be generally four letters long, e.g. “-rst” in the word “**firsts**”. Perhaps the prize for the longest consonant cluster would have to go to the word “**rhythm**”, which is solely made up of consonant letters – six to be precise! However, “rhythm” cheats as a consonant cluster, because it actually has two vowel sounds – the “y” acts as the vowel sound /ɪ/ in the first syllable, which is stressed, and the second syllable can have either the schwa sound (weak stress) or no vowel sound: /ˈrɪð.əm/ or /ˈrɪð.m/.

Adverbs are a group of words that can have long consonant clusters at the end, e.g. **exactly**. Elision is likely to occur in such a cluster, for example “exactly” will often be pronounced without the /t/ sound, like this: /ɪɡˈzæk.li/ rather than /ɪɡˈzækt.li/. It would be too much unnecessary effort to try to pronounce the /t/, sandwiched as it is between two other consonant sounds. I say *unnecessary* because the most important sound in this word is the vowel sound on the stressed syllable, the /æ/ sound. This sound *must* be pronounced clearly, whilst the consonant sounds are less vital to communication.

Consonant clusters can be divided into **five** categories:

1. Consonant Digraphs
2. Consonant Digraphs with Double Letters
3. True Consonant Clusters
4. Consonant Clusters Ending with /s/ or /z/
5. Consonant Clusters in Compound Words

1. Consonant Digraphs

Some consonant clusters are *digraphs*, which are two letters together in the spelling of a word that combine to make a single sound. Note that most consonant digraphs end with the letter “h”. (When three letters come together to form a single sound, e.g. “-tch” in the word “**fetch**” – which represents the sound /tʃ/ – it is known as a *trigraph*.)

Here are some examples of **initial** consonant digraphs. (*Note: you may wish to add your own examples in the space provided.*)

digraph: sounds like: for example: my example(s):

ch	/tʃ/	cheer, champion, change	_____
ch	/ʃ/	chandelier, champignon¹	_____
ch	/k/	cholera, chrome, chronic	_____
gn	/n/	gnat, gnaw, gnome	_____
kn	/n/	know, knife, knitting	_____

¹ Loan words from French.

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ph	/f/	photo, pharmacy, pharaoh	_____
rh	/r/	rhubarb, rhinoceros, rhyme	_____
sc	/s/	science, scissors, scimitar	_____
sh	/ʃ/	sheep, shine, shock, shed	_____
th	/θ/	thick, Thursday, thanks	_____
th	/ð/	this, that, brother, there, the	_____
ts	/s/	tsunami ¹	_____
wh	/w/	what, why, where, wheel, whip	_____
wh	/h/	who, whose, whole, wholemeal	_____
wr	/r/	writing, wrestler, wrong	_____

Here are some examples of **final** consonant cluster digraphs:

digraph: *sounds like:* *for example:* *my example(s):*

ch	/tʃ/	beach, coach, roach	_____
ch	/k/	stomach	_____
ck	/k/	black, track, pick, flock, luck	_____
gh	/f/	cough, trough, rough, enough, tough ²	_____
mb	/m/	comb, tomb, aplomb, plumb	_____
ng	/ŋ/	along, going, eating, meeting	_____
sh	/ʃ/	finish, trash, Spanish, fish	_____
th	/θ/	tooth, youth, bath, path	_____

¹ This is a loan word from Japanese. In the word “**tsar**” (from Russian) the “ts” digraph makes a /z/ sound: /zɑː/

² The digraph “gh” also contributes towards different vowel sounds, e.g. /aʊ/ in “**bough**” and “**plough**”, and can be included in various vowel clusters (see p.18.53).

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Spelling and Sounds – Consonant Clusters

Here are some **final** consonant digraphs which occur where the letter “r” is silent because it is helping to make a vowel sound (see also **vowel clusters** on p.18.50).

digraph: *sounds like:* *for example:* *my example(s):*

rb	/b/	disturb, suburb, rhubarb	_____
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rn	/n/	earn, turn, western, learn	_____
----	-----	----------------------------	-------

rt	/t/	hurt, heart, art, start, alert	_____
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Just to confuse you, here’s a consonant cluster where “r” is pronounced. This is not a digraph, because both of the letters are pronounced, but rather a true consonant cluster:

c/cluster: *sounds like:* *for example:* *my example(s):*

ry	/ri/	dairy, eery, diary, hairy, bury	_____
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2. Consonant Digraphs with Double Letters

These consonant clusters are digraphs that comprise a pair of identical letters, which make a single sound when said together. Most consonant letters can be doubled, although doubles with “h”, “j”, “q”, “w”, “x”, and “y” are not natural in English. They usually occur in the middle of a word, although some, like “ff” in “cliff” come at the end. They never occur at the beginning of a word, unless the word has originated from a foreign language, for example “llama” from Spanish or “Lloyd” from Welsh. Here is a full list of consonant digraphs with double letters:

digraph: *sounds like:* *for example:* *my example(s):*

bb	/b/	robber, sobbing, hobble	_____
cc	/k/	soccer, occur, stucco	_____
dd	/d/	pudding, wedding, sadder	_____
ff	/f/	iffy, cliff, effect, off, effort	_____
gg	/g/	boggy, flagged, bigger	_____
kk	/k/	trekking, Trekker	_____
ll	/l/	alluring, allied, balloon	_____
mm	/m/	summer, humming, immature	_____
nn	/n/	runner, annoy, announcement	_____
pp	/p/	opportunity, shopping, kipper	_____
rr	/r/	hurry, worried, curry, sorry	_____
ss	/s/	assess, less, massive	_____
ss	/z/	possess	_____
tt	/t/	shutters, cottage, plotted	_____
vv	/v/	revved	_____

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Spelling and Sounds – Consonant Clusters

3. True Consonant Clusters

“True” consonant clusters are phonetic because they are pronounced in the same way as they are spelled. For example, “br” in “**bread**” is pronounced in the same way as the phonemes that it represents: /br/. In true consonant clusters we pronounce all of the sounds. Note that the consonant clusters below in **bold type** are all good examples of when the consonant sound /r/ is pronounced in an English word. This is helpful to know, because so often in spoken English the letter “r” in a word is not pronounced, since it’s only there to help make a vowel sound, for example in the words: “**car**”, “**more**”, and “**your**” (see also p.18.50).

Here are some examples of true **initial** consonant clusters:

<i>c/cluster:</i>	<i>sounds like:</i>	<i>for example:</i>	<i>my example(s):</i>
bl	/bl/	blood, blend, black, blown	_____
br	/br/	bright, bring, brush, brilliant	_____
cl	/kl/	clear, close, clothes, clever	_____
cr	/kr/	cry, crime, crow, crop, crumb	_____
dr	/dr/	drink, drop, drive, drip, dreary	_____
fl	/fl/	flannel, fly, fleece, flame, flow	_____
fr	/fr/	frighten, from, frame, France	_____
gr	/gr/	great, grape, grip, grime, grow	_____
pr	/pr/	prove, provide, pray, princess	_____
qu	/kw/	quite, queen, quick, quiet¹	_____
scr	/skr/	scream, script, scam, screw	_____
sm	/sm/	small, smart, smelly, smooth	_____
st	/st/	stay, stop, stink, stolen, sty	_____
str	/str/	strange, strop, street, strict	_____
tr	/tr/	tropical, trench, train, triumph	_____

Here are some examples of true **final** consonant clusters:

<i>c/cluster:</i>	<i>sounds like:</i>	<i>for example:</i>	<i>my example(s):</i>
ly	/li/	only, lonely, truly, rarely	_____
mp	/mp/	hump, bump, clamp, damp	_____
mpt	/mpt/	exempt, contempt, dreampt	_____
nch	/ntʃ/	munch, lunch, bench, stench	_____
nd	/nd/	end, stand, mend, ground	_____
ndy	/ndi/	windy, candy, handy, sandy	_____
ny	/ni/	tiny, meany	_____

...and here are a couple that are neither initial nor final consonant clusters:

¹ Although “qu” is technically a consonant and a vowel together, the sounds that it produces – /kw/ – are both consonant sounds.

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Spelling and Sounds – Consonant Clusters

<i>c/cluster:</i>	<i>sounds like:</i>	<i>for example:</i>	<i>my example(s):</i>
lv	/lv/	salvage, delve, shelves	_____
ng	/ndʒ/	orange, arrange, impinge	_____

4. Consonant Clusters Ending with /s/ or /z/

These are consonant clusters that end with an “s”, representing either the sound /s/ or /z/ at the end of a plural noun, for example:

<i>c/cluster:</i>	<i>sounds like:</i>	<i>for example:</i>	<i>my example(s):</i>
nts	/nts/	plants, accounts, rents	_____
rds	/dz/	records, birds, cards, chords	_____
rs	/z/	colours, rivers, sisters	_____
ts	/ts/	sweets, oats, boats	_____

We’ve already seen earlier on in this handbook how adding an “s” sound – /s/ – or a “z” sound – /z/ – at the end of a word makes it easier for us to say the next sound if it’s a consonant sound (see p.3.9). The importance of /s/ and the very similar /z/ as linking sounds in connected speech in English cannot be overstated. These linking sounds occur very frequently in English because of grammar rules to do with using “s”. If you think about it, we use “s” as a letter at the end of words far more frequently than we do other letters, simply because of the following grammar rules:

1. “s” is added to the end of most nouns to make them plural, e.g. “one cat, two **cats**”, or “one knife, two **knives**”
2. “s” is added to the end of nouns (after an apostrophe) to indicate possession, e.g. “John’s car”, or “the girl’s book”
3. “s” is added to the end of verbs to make the third form, e.g. “I read, he reads”, or “you put”, “she puts”. It is also worth noting the “s” endings of the third form of the four most common verbs in English (the first three of which are also very common auxiliary verbs):

Verb: **BE**

Third Form: he **is**, she **is**, it **is** *and the contractions* he’s, she’s, it’s

Verb: **HAVE**

Third Form: he **has**, she **has**, it **has** *and the contractions* he’s, she’s, it’s

Verb: **DO**

Third Form: he **does**, she **does**, it **does**

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Spelling and Sounds – Consonant Clusters

Verb: **GO**

Third Form: he goes, she goes, it goes

Can you imagine what would happen if we used /t/ instead of /s/ or /z/ as a linking sound in each of these situations? The consonant sound /t/ is often dropped at the ends of words (see p.11.5), because it is difficult to pronounce together with another consonant sound. If we used it in the above rules instead of /s/ or /z/ (which connect well with all other consonant sounds) the phrases produced would be much harder to say, because they wouldn't flow together well. For example, we would have to say: "*John't car*", instead of "John's car", which would make a problem because the /t/ sound at the end of "*John't*" wouldn't flow well with the next consonant sound (the /k/ sound at the beginning of "car"). Or what about "*she't going*", instead of "she's going"? Again, it would be much harder to pronounce. In fact the result would be tongue-twisting on a massive scale! In the same way, having to pronounce "*he readt bookt*", instead of "he reads books" wouldn't flow, because /t/ – or indeed any other consonant sound – wouldn't enable the same easy flow that we achieve by using /s/ or /z/.

5. Consonant Clusters in Compound Words

In compound words, strange consonant clusters can occur, which are not "true" consonant clusters. This is because two separate words have been joined together to make a new word, meaning that the final consonant cluster from the first word has to sit side by side with the initial consonant cluster from the second word. Here are some examples:

<i>c/cluster:</i>	<i>sounds like:</i>	<i>for example:</i>	<i>the two words are:</i>
tchb	/tʃb/	switch board	switch + board
ffh	/fʰ/	cliff hanger	cliff + hanger
ndf	/ndf/	grand father	grand + father
ndbr	/ndbr/	ground breaking	ground + breaking

As we have seen, it is common when consonant sounds meet for elision or assimilation to take place (see also Connected Speech, p.11.4). So, for example, we wouldn't pronounce the whole mouthful of consonant sounds in the middle of "groundbreaking": /'graʊnd.breɪ.kɪŋ/, because it would be too difficult in rapid speech to pronounce the final consonant cluster "-nd" next to the initial consonant cluster, "br". On the contrary, we would automatically employ elision and lose the /d/ sound, changing the word into: "groun-breaking" /'graʊn.breɪ.kɪŋ/ – which is far easier to pronounce.

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Spelling and Sounds – Common Consonant Clusters

A consonant cluster is a group of two or more consonant letters together in a word. They can be **initial** (at the beginning of a word), **medial** (in the middle of a word), and **final** (at the end of a word). Focusing on consonant clusters and vowel clusters (see p.18.48) is useful if you want to look at some of the differences between spelling and sounds in English words. Consonant clusters can be divided into five categories:

1. Consonant Digraphs (two consonant letters together make a single sound) – INITIAL:

<i>digraph:</i>	<i>sounds like:</i>	<i>for example:</i>	<i>my example(s):</i>
ch	/tʃ/	cheer, champion, change	_____
gn	/n/	gnat, gnaw, gnome	_____
kn	/n/	know, knife, knitting	_____
ph	/f/	photo, pharmacy, pharaoh	_____
sc	/s/	science, scissors, scimitar	_____
sh	/ʃ/	sheep, shine, shock, shed	_____
th	/θ/	thick, Thursday, thanks	_____
th	/ð/	this, that, brother, there, the	_____
wh	/w/	what, why, where, wheel, whip	_____
wr	/r/	writing, wrestler, wrong	_____

FINAL:

<i>digraph:</i>	<i>sounds like:</i>	<i>for example:</i>	<i>my example(s):</i>
ch	/tʃ/	beach, coach, roach	_____
ck	/k/	black, track, pick, flock, luck	_____
gh	/f/	cough, trough, rough, enough, tough	_____
mb	/m/	comb, tomb, aplomb, plumb	_____
ng	/ŋ/	along, going, eating, meeting	_____
sh	/ʃ/	finish, trash, Spanish, fish	_____
th	/θ/	tooth, youth, bath, path	_____

2. Consonant Digraphs with Double Letters – MEDIAL:

<i>digraph:</i>	<i>sounds like:</i>	<i>for example:</i>	<i>my example(s):</i>
bb	/b/	robber, sobbing, hobble	_____
cc	/k/	soccer, occur, stucco	_____
dd	/d/	pudding, wedding, sadder	_____
ll	/l/	alluring, allied, balloon	_____
mm	/m/	summer, humming, immature	_____
nn	/n/	runner, annoy, announcement	_____
pp	/p/	opportunity, shopping, kipper	_____
rr	/r/	hurry, worried, curry, sorry	_____
ss	/s/	assess, less, massive	_____
tt	/t/	shutters, cottage, plotted	_____

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Spelling and Sounds – Common Consonant Clusters

3. True Consonant Clusters (that sound the same as they are spelled) – INITIAL:

<i>c/cluster:</i>	<i>sounds like:</i>	<i>for example:</i>	<i>my example(s):</i>
bl	/bl/	blood, blend, black, blown	_____
br	/br/	bright, bring, brush, brilliant	_____
cr	/kr/	cry, crime, crow, crop, crumb	_____
dr	/dr/	drink, drop, drive, drip, dreary	_____
fr	/fr/	frighten, from, frame, France	_____
gr	/gr/	great, grape, grip, grime, grow	_____
pr	/pr/	prove, provide, pray, princess	_____
qu	/kw/	quite, queen, quick, quiet	_____
ry	/ri/	dairy, eery, diary, hairy, bury	_____
scr	/skr/	scream, script, scam, screw	_____
sm	/sm/	small, smart, smelly, smooth	_____
st	/st/	stay, stop, stink, stolen, sty	_____
tr	/tr/	tropical, trench, train, triumph	_____

FINAL:

<i>c/cluster:</i>	<i>sounds like:</i>	<i>for example:</i>	<i>my example(s):</i>
ly	/li/	only, lonely, truly, rarely	_____
mp	/mp/	hump, bump, clamp, damp	_____
nch	/ntʃ/	munch, lunch, bench, stench	_____
nd	/nd/	end, stand, mend, ground	_____
ndy	/ndi/	windy, candy, handy, sandy	_____

4. Consonant Clusters Ending with /s/ or /z/ (at the end of a plural noun) – FINAL:

<i>c/cluster:</i>	<i>sounds like:</i>	<i>for example:</i>	<i>my example(s):</i>
nts	/nts/	plants, accounts, rents	_____
rds	/dz/	records, birds, cards, chords	_____
ts	/ts/	sweets, oats, boats	_____

5. Consonant Clusters in Compound Words – (consonant clusters meet) – MEDIAL:

<i>c/cluster:</i>	<i>sounds like:</i>	<i>for example:</i>	<i>the two words are:</i>
tchb	/tʃb/	switchboard	switch + board
ffh	/fh/	cliffhanger	cliff + hanger
ndf	/ndf/	grandfather	grand + father
ndbr	/ndbr/	groundbreaking	ground + breaking

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