Initial consonant cluster:

If the first syllable of the word in question begins with a vowel (any vowel may occur, though u is rare) we say that this initial syllable has a zero onset. If the syllable begins with one consonant, that initial consonant may be any consonant phoneme except rj; 3 is rare. We now look at syllables beginning with two consonants. When we have two or more consonants together we call them a consonant cluster. Initial two-consonant clusters are of two sorts in English. One sort is composed of s followed by one of a small set of consonants; examples of such clusters are found in words such as 'sting' stir), 'sway' swei, 'smoke' smƏuk. The s in these clusters is called the pre-initial consonant and the other consonant (t, w, m in the above examples) the initial consonant. These clusters are shown in Table 2. The other sort begins with one of a set of about fifteen consonants, followed by one of the set l, r, w, j as in, for example, 'play' plei, 'try' trai, 'quick' kwik, 'few' fju:. We call the first consonant of these clusters the initial consonant and the second the post-initial. There are some restrictions on which consonants can occur together. This can best be shown in table form, as in Table 3. When we look at three-consonant clusters we can recognize a clear relationship between them and the two sorts of two-consonant cluster described above; examples of three-consonant initial clusters are: 'split' /split/, 'stream' /stri:m/, 'square' /skwea/. The **s** is the pre-initial consonant, the **p, t, k** that follow **s** in the three example words are the initial consonant and the **l, r, w** are post-initial. In fact, the number of possible initial three-consonant clusters is quite small and they can be set out in full (words given in spelling form): Table 1

	Initial	Post initial			
		l	R	W	j
S plus initial	P +	'splay'	'spray'		'spew'
	T +		'string'		'stew'
	K +	'sclerosis'	' screen'	' squeak'	' skewer

Two-consonant clusters with pre-initial s: Table 2

	Initial																				
Pre-initial S+	P	t	k	b	D	g	f	Ɵ	s	ʃ	h	v	ð	z	ʒ	m	N	ŋ	l	r	w	j
	spin	stik	skim				sfiə									smel	snəʊ					

Note: two consonant cluster of **s** plus **l, w, j** are also possible (e.g slip, swinŋ , sjʊ:), and even perhaps **sr** in syringe/srindʒ/ for many speakers. These clusters can be analysed either as pre initial s plus initial l, r, w, j or initial s plus post initial l, r, w, j.

Two consonant cluster s with post-initial l, r, w; j: Table 3

		P	t	k	B	d	g	f	Ɵ	s	ʃ	h	v	ð	z	ʒ	M	n	ŋ	l	r	w	j
Post-initial	l	Plei		klei	blæk		glu:	flai		slip													
	r	Prei	trei	krai	briŋ	drip	grin	frai	Ɵrəʊ		ʃru:												
	w		twin	kwik		dwel			Ɵw ɔ:t	swim													
	j	pjo:	tju:n	kju:	bju:ti	dju:		fju:		sju:		Hju:dʒ	vju:				mju:z	nju:z		lju:d			

Final consonant cluster:

If there is no final consonant we say that there is a zero coda. When there is one consonant only, this is called the final consonant. Any consonant may be a final consonant except **h, w, j.** The consonant **r** is a special case: it doesn't occur as a final consonant in BBC pronunciation, but there are many rhotic accents of English in which syllables may end with this consonant. There are two sorts of two-consonant final cluster, one being a final consonant preceded by a pre-final consonant and the other a final consonant followed by a post-final consonant. The pre-final consonants form a small set: m, n, ŋ , l, s. We can see these in 'bump' bʌmp, 'bent' bent, 'bank' bæ ŋk, 'belt' belt, 'ask' a:sk. The post-final consonants also form a small set: s, z, t, d, ϴ; example words are: 'bets' bets, 'beds' bedz, 'backed' bækt, 'bagged' bægd, 'eighth' eit ϴ . These post-final consonants can often be identified as separate morphemes (although not always - 'axe'æ ks, for example, is a single morpheme and its final s has no separate meaning). A point of pronunciation can be pointed out here: the release of the first plosive of a plosive-plus-plosive cluster such as the g (of gd) in bægd or the k (of k t) in bækt is usually without plosion and is therefore practically inaudible. There are two types of final three-consonant cluster; the first is pre-final plus final plus post-final, as set out in the following table:

		Pre-final	final	Post-final
helped	He	l	p	t
banks	Bæ	ŋ	k	s
Bonds	Bo	n	d	z
Twelfth	Twe	l	f	ϴ

The second type shows how more than one post-final consonant can occur in a final cluster: final plus post-final 1 plus post-final 2. Post-final 2 is again one of s, z, t, d, ϴ .

		Pre-final	final	Post-final 1	Post-final 2
Fifths	Fi		f	ϴ	S
Next	Ne		k	s	T
Lapsed	Læ		p	s	T

Most four-consonant clusters can be analysed as consisting of a final consonant preceded by a pre-final and followed by post-final 1 and post-final 2, as shown below:

		Pre-final	Final	Post-final 1	Post-final 2
Twelfths	Twe	L	f	ϴ	s
Prompts	Pro	M	p	T	s

A small number of cases seem to require a different analysis, as consisting of a final consonant with no pre-final but three post-final consonants:

		Pre-final	final	Post-final 1	Post-final 2	Post-final 3
Sixths	Si		k	S	ϴ	s
Texts	Te		k	S	t	s

To sum up, we may describe the English syllable as having the following maximum phonological structure:

Pre-initial initial post-initial **vowel** pre-final final post-final 1 post-final 2 post-final 3

onset coda