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\begin{aligned}
& \text { English } \\
& \text { Spellings } \\
& \text { A Lexicon }
\end{aligned}
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# English spelling: the myth of its irregularity 

## Introduction

Spelling in English has long been thought an intractable problem. Over four hundred and fifty years ago John Hart was writing to deplore the difficulties of learning to read and to spell. In both of his books ${ }^{1}$, The Opening of the Unreasonable Writing of Our English Toung and A Methode or comfortable beginning for all unlearned, whereby they may be taught to read English, in a very little time, with pleasure, we get from the titles an idea about Hart's thinking on the matter. In the second book, Hart expounds his belief that orthography or spelling should represent sounds and then goes on to identify the principal problems with the spelling system. To begin with, he informs us that letter names are an obstacle to learning to read and spell! The letters, as he put it, 'are misnamed much from their offices and natures, whereby the desirous are much the more hindered from learning to reade, though they were never so willing' ${ }^{2}$. The second problem was that letters often represent more than one sound and that sounds are frequently spelled in different ways. Hart's solution, like many of those who followed him up to present times, was spelling reform - an alternative we firmly reject ${ }^{3}$.
Two hundred years after Hart Dr Samuel Johnson wrestled with precisely the same dilemmas. The starting point for his dictionary was one 'by which the pronunciation of our language may be fixed ${ }^{\prime 4}$, a chimera pursued by many before and after Johnson. However, once started on his famous dictionary, Johnson quickly realised the impossibility of achieving fixity in the language and moved to the position, taken up in the Preface to his dictionary, of mocking the 'folly, vanity and affectation' of anyone imagining they could 'embalm' the language. 'Dictionaries,' he added, 'are like watches. The worst is better than none, and the best cannot be expected to go quite true. ${ }^{.5}$

[^0]Although Johnson complained about the great deal of uncertainty in this domain, as David Crystal argues in his Stories of English', 'orthography had received a great deal of attention prior to the writing of Johnson's dictionary' and, as can be seen from how easy it is to read the titles of Hart's three books, 'three hundred years of steady standardisation in spelling had resulted in enormous consensus... By Johnson's time there was no real evidence of serious 'uncertainty' in orthography.' ${ }^{7}$

Nevertheless, consensus there might be, but the manner in which English speech sounds relate to their spellings appears for many still shrouded in mystery. This booklet was written to demonstrate that, contrary to popular belief, the relationship between the two is much more consistent than is generally believed and, furthermore, that reading and spelling are but two sides of the same coin that can, if the teaching is appropriate, be taught accurately and 'with pleasure', as Hart claimed all those years ago.

## How do these long-standing conundrums about English spelling impinge upon us today?

There is a widely held belief that one of the main reasons underlying the high levels of illiteracy in the English speaking world is the irregularity, or irrationality, of English spelling. We intend to demonstrate in this booklet that this belief is completely unfounded. We confidently assert the proposition that, English spelling is highly regular.

## Why does it matter that spelling is regular?

It matters because the ways in which children are shown how to learn to read and spell in our schools are often underpinned by erroneous beliefs about spelling. These false beliefs have resulted in our common teaching practices being riddled with pedagogic errors resulting in hundreds of thousands of effectively illiterate students leaving our schools each year as a direct consequence of the failings inherent within the literacy tuition they have encountered.

If the English spelling system were irregular this would point to the necessity of a whole language approach in which complete words would need to be

[^1]photographically stored in visual memory as though they were symbols akin to pictograms. On the other hand, if English is spelled in a regular manner, as we contend, then it is the phonic alphabet code that needs to be unlocked and children must be taught literacy by an accurate and thoroughly consistent approach. And, as Diane McGuinness has repeatedly pointed out,
'Phonemes are the basis for the code, and the letters are the code' ${ }^{8}$.

As already stated, in this booklet the regularity of English spelling will be demonstrated beyond all reasonable doubt, whilst accepting that, for various historical reasons, English spelling is far more complex than necessary for the purpose of recording our speech and thoughts.

Within this short article English text is carefully scrutinised to unlock the key issues underpinning the current state of English spelling, culminating in a lexicon of examples covering all the main alphabetic encodings of English speech sounds.

Although we shall discuss what needs to be done to teach literacy effectively to ALL our children, with the exception of a few special needs pupils who experience severe mental and/or sensory handicap, this is not a booklet about teaching methods, but one for directing attention to the reasons why certain types of teaching strategies are necessary. The actual principles of 'how' to teach literacy effectively we have already addressed within our literacy tuition programme: Sounds~Write ${ }^{9}$.

[^2]
## A discussion and analysis of English spelling

Writing in English consists of making marks on paper, called letters. It is these letters that represent the sounds of our speech written in the same order as they are spoken. Conventionally these are sequenced from left to right across the page with successive lines progressing from the top to the bottom of the page. The English language, depending on accent, contains 42 to 45 sounds known as phonemes (the smallest distinguishable units of speech that we can hear). All of the common core sounds are shown in the table below together with the way in which we shall represent them in this book.

Table One: The speech sounds of the English language

| Vowels |  |  | Consonants |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Sound | Example |  | Sound | Example |
| 1 | 'a' | flat | 1 | 'b' | big |
| 2 | 'ae' | lady | 2 | 'ch' | chop |
| 3 | 'ar' | star | 3 | 'd' | dog |
| 4 | 'air' | pair | 4 | 'f' | fig |
| 5 | 'e' | pet | 5 | 'g' | go |
| 6 | 'ee' | me | 6 | 'h' | hat |
| 7 | 'er' | her | 7 | 'j' | jug |
| 8 | 'i' | pin | 8 | 'k' | kit |
| 9 | 'ie' | pie | 9 | 'I' | lip |
| 10 | 'o' | pot | 10 | 'm' | mop |
| 11 | 'oe' | toe | 11 | 'n' | no |
| 12 | 'or' | for | 12 | 'ng' | sing |
| 13 | 'oy' | toy | 13 | 'p' | pig |
| 14 | 'ow' | cow | 14 | 'r' | run |
| 15 | 'u' | bun | 15 | 's' | sit |
| 16 | 'ue' | cue | 16 | 'sh' | shop |
| 17 | 'оo' | book | 17 | 't' | tap |
| 18 | 'ㅇo'' | moon | 18 | 'th'nv* | thin |
| $19^{1}$ | schwa | about | 19 | 'th'*** | the |
|  |  |  | 20 | 'v' | van |
| ${ }^{1}$ If you are uncertain about this, the most common of the English vowels, please see Appendix A, page 21. |  |  | 21 | 'w' | wet |
|  |  |  | $22^{2}$ | 'x' | box / exam |
|  |  |  | 23 | 'y' | yet |
|  |  |  | 24 | 'z' | zoo |
| ${ }^{2}$ The letter < x > encodes two sounds, pronounced as either 'ks' or 'gz'. |  |  | 25 |  | azure |
|  |  |  | ${ }^{*} \mathrm{NV}$ - not voiced <br> ${ }^{* *}{ }_{v}$ - voiced |  |  |

Throughout the text speech sounds (phonemes) will be indicated by placing them within speech marks and spellings (graphemes) within chevron brackets. So, for example, the word beach is made up of the following three speech sounds,
'b' 'ee' and 'ch', that are represented by the three spellings: < b><ea>\& ch>. Please note that, although <ea>in this example is comprised of two letters, it represents only one sound as does the following < ch >. In written English, spellings may be composed of one, two, three or four letters as shown by the following underlinings: $\underline{\mathbf{c}} \underline{\underline{t}} \underline{\mathbf{c h}} \underline{\operatorname{ar}} \underline{\mathbf{t}} \underline{\mathbf{m}} \underline{\operatorname{igh}} \underline{\mathbf{t}}$ and eigh $\underline{\mathbf{t}}$. Where appropriate these will be referred to as single-letter, two-letter, three-letter or four-letter spellings. When writing about the two sounds commonly represented by the spelling < $\mathbf{0 0}\rangle$, to avoid confusion they will be referred to as either ' ${ }^{\mathrm{b}} \mathbf{O O}_{\mathrm{k}}$ ' or ${ }_{\mathrm{m}} \mathbf{0} \mathbf{0} \mathbf{O}_{\mathrm{n}}{ }^{\prime}$.

Some words of caution before proceeding:

- If in doubt about the pronunciation of a word, listen to yourself or others saying it WITHOUT looking at the way it is written down, otherwise you may find yourself making your speech conform to your interpretation of the spelling; whereas, of course, the spelling should represent your speech!
- Particular care is recommended when considering the weak vowel sounds (called schwas), which are, in fact, the commonest vowel sounds in English. It is these that cause the most frequent problems for all of us when trying to spell accurately. (See Appendix A, page 21.)
- Regional accents are mainly to do with the pronunciation of some of the vowels. So, for example, in the South-East of England the word look rhymes with shook, but in the North-West it rhymes with (and is pronounced as) Luke. Accent issues do not affect the arguments being put forward in this booklet, but obviously those with different accents to the Received Pronunciation adopted in this document will need to make a few minor adjustments to some of the specific examples quoted. In the same way, teachers who are teaching real (ie linguistic) phonics need to adjust some word groupings according to the pronunciations of their pupils.

In Table 1 attention was drawn to the sounds of English speech. Two specific questions now need to be addressed: what are the spellings (graphemes) used to represent English speech sounds; and what makes a spelling regular?

## What are the spellings used to represent our speech sounds?

The alphabetic writing system is a method of converting spoken language accurately into a visual format (code) from which the original speech can be recovered. Many different systems have been attempted throughout history but, due to (a) the limitations of human visual memory for abstract symbols and (b) our apparently
limitless capacity to generate new words*, only ONE approach has proved viable for the English language. That is to say, an alphabetic system based on the smallest sound units in speech.
(* The full English dictionary is now well on the way to a million entries!)

Spoken English contains no real silences other than those generated by a need to intake breath, or to insert a dramatic pause into conversation. It is logical to suppose that every letter in every word
will either be a spelling in its own right, or else be part of a spelling composed of two, three or four letters. What does this mean in practice? There is universal agreement that the word cat is composed of the three sounds ' $\mathbf{k}$ ' ' $\mathbf{a}$ ' ' $\mathbf{t}$ ', and that these are represented by the three spellings < c><a><t>. However, analysis of a word such as know that is spelled in a slightly more complicated fashion can cause confusion. Traditional 'phonic' approaches tend to look at this word as:
< silent $\mathbf{k}><\mathbf{n}><\mathbf{o w}>$, with the < $\mathbf{k}>$ representing nothing, the < n > representing the sound ' n ' and the $<\mathbf{o w}>$ representing the sound ' $\mathbf{o e}$ '. This is completely irrational. There are only two rational possibilities:
(a) both < $\mathbf{k}>$ and $<\mathbf{w}>$ are silent, with the $<\mathbf{n}>$ and < $\mathbf{0}>$ respectively representing the ' $n$ ' and 'oe' sounds; or
(b) < kn > and < ow > are both two-letter spellings respectively representing the ' n ' and 'oe' sounds.

Clearly option (b) would be the correct choice because, if letters and combinations of letters represent the sounds of speech, it does not make much sense to say there are silent letters. For many readers, the example < kn > will appear to be a new and unusual two-letter spelling of the sound ' $n$ '. However, this is no more unusual than pairing the letters < s > and < h > to arrive at < sh > as a two-letter spelling for the sound 'sh' in the word shop. ${ }^{10}$ If < kn > is considered to be a spelling of the sound

[^3]' $\mathbf{n}$ ', how does it work in practice? Dictionaries that provide a phonic analysis of words alongside the spellings, such as knack, kneel, knife, knot, doorknob, etc, make this point a lot more obvious from the above perspective.

## What makes the spelling of a speech sound regular?

We propose that any spelling is regular if it appears in more than just one word. Spellings that occur in only one word we will refer to as being unique, and those that occur in no more than two or three words as being unusual. But if a word that contains a unique spelling occurs with high frequency within normal speech (therefore also appearing with high frequency in written texts) we would also regard that as a regular spelling. However, we only know of one such example of a word frequently encountered in both speech and text that contains a unique spelling of a sound: that word is of, within which the single-letter spelling < $\mathbf{f}$ > represents the sound 'v'. The word of occurs so frequently in spoken and written English that it is not possible to do other than consider this unique spelling of ' $v$ ' to be regular.

A spelling such as <uy>, which represents the sound 'ie', is unusual, but it is clearly a regular spelling in English because we often come across it in the words buy, guy and Guy. However, the one-off four-letter spelling < ough >, representing the sound ' ${ }_{m} \mathbf{0 O}_{n}$ ' in the word through we would think of as a unique spelling of the sound ${ }_{m} \mathbf{0} \mathbf{O}_{n}$ 'that we would not refer to as being regular.

The next step is to begin examining some text to see where the above propositions lead. Obviously if thousands of 'regular spellings of speech sounds' rapidly emerge, this would make the whole system so complex that it would be impossible to memorise and no-one could possibly be a good speller! On page 6, in Figure One, are shown the first six verses of 'The Walrus and the Carpenter' by Lewis Carroll. This poem has been typed with a space inserted between each spelling of a sound in every word, and three spaces between each word. Each spelling is underlined with the exception of the split spellings of the sounds 'ae' 'ee' 'ie' ' $\mathbf{o e}$ ' and 'ue'. These are shownas $\mathbf{t a k} \mathbf{k} \mathbf{c o p e}$ and $\mathbf{t i m e} \overline{\mathbf{e}}$, etc. This should make the spelling of each sound totally transparent to all, including readers who may be new to this type of exercise.

As can be seen, this exercise is not difficult to perform. In Tables 2a and 2b on pages 7-8, the first for consonants and the second for vowels, we show all the spellings that have been 'discovered' in the six verses of 'The Walrus and the Carpenter'. These have been placed in two columns entitled Regular spelling and Unique spelling? Where examples of a particular spelling have been found in two or more words, they have been placed in the regular spelling
column along with the first two examples found in the text. In the other column are shown spellings for which only one example was found in the text. However, to save readers searching the dictionary for other examples, one has already been placed in the third column. At this stage readers might like to examine the tables $2 a$ and $2 b$ before returning to the discussion here.

Having inspected tables $2 a$ and $2 b$, we can see that, within this one short text 96 spellings have been 'discovered' representing 39 of the $45+$ English speech sounds. The total number of individual speech sounds in this passage is 639 and it is quite apparent that most of the spellings found are regularly repeated in other words. Furthermore, where only one example of a spelling occurs in the passage it has been quite easy to find other examples from memory. In respect of the starting definition of spelling regularity, all 96 spellings found so far are regular, i.e. they occur in more than one word. So, in these six verses of 'The Walrus and the Carpenter' that contain over six hundred speech sounds, not a single one of them has been represented by a unique (non regular) spelling. (Other than the sound ' $\mathbf{v}$ ' in the word < of > referred to earlier.)


 Of $\underline{f} \underline{a} \underline{a b} \underline{a} \underline{e} \underline{s}-\underline{a} \underline{n} \underline{d} \underline{i} \underline{n g} \underline{s}$ -

Ang whether pigs have wings."
" $\underline{B} \underline{u} \underline{t} \underline{w} \underline{a i t} \underline{t} \underline{b} \underline{i t}, "$ the $\underline{O y} \underline{s} \underline{t} \underline{e r} \underline{c} \underline{r} \underline{i e d} \underline{d}$ " Before we have our chat;
For soome of $\underline{\mathrm{o}} \underline{\mathrm{s}}$ are out of $\underline{\mathrm{b}} \underline{\mathrm{r}}$ eath,
And all of $\underline{\mathrm{u}} \underline{\mathrm{s}}$ are $\underline{\mathrm{f}} \underline{\mathrm{a}} \mathrm{t}$ !"

They thanked $\underline{h} \underline{i} \underline{m} \underline{m} \underline{u} \underline{c h}$ for that.
" $\underline{A} \underline{1} \underline{o a} \underline{f}$ of $\underline{\mathrm{b}} \underline{\mathrm{r}} \underline{\mathrm{ea}} \underline{\mathrm{d}}, "$ th $\underline{\mathrm{e}} \underline{\mathrm{W}} \underline{1} \underline{r} \underline{\mathrm{u}} \underline{\mathrm{s}}$ said,
"Ís what we ch iefly need:

Are $\underline{v e r y}$ good ind $\underline{\text { deed }}$ -
Now, if $y$ ou're $\underline{r} \underline{e a d} y, ~ O y s t e r s$ dear,


Turning a $\underline{\underline{1} i t t l e}$ blue.
"A $\underline{f} \underline{t} \underline{e r}$ such $\underline{k} \underline{i n} \underline{d} \underline{n} \underline{e} \underline{s s}$, that $\underline{t}$ ould $\underline{b} \underline{e}$
A $\underline{d} \underline{i} \underline{\underline{m}} \underline{\mathrm{~m}} \underline{\mathrm{al}}$ th $\underline{\underline{i}} \underline{n g} \underline{\mathrm{t}} \underline{o}$ d $\underline{o}$ !"

"Do you adminge the view?

Ang you are very ningè"


I wísh you were not quitē sod deaf-


"To play the $\underline{m}$ such a trick,


The $\underline{C} \underline{a r} \underline{p} \underline{e} \underline{n} \underline{e r}$ said $\underline{n} \underline{o} \underline{t h} \underline{i} \underline{n g}$ but


Table 2a: Consonant Sounds found in The Walrus and the Carpenter

| Consonant Sound | Regular spelling | Example words | Unique Spelling? | Example word | Another example (not from poem) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 'b' | < b > | boiling but | < bb > | cabbages | bubble |
| 'k' | $\begin{aligned} & <c> \\ & <k> \\ & <c k> \\ & <q> \end{aligned}$ | come cabbages talk kings trick quick quite quick | < x > | wax | axle |
| 'd' | < d > | said and |  |  |  |
| 'f' | < f > | before for |  |  |  |
| 'g' | $<\mathrm{g}\rangle$ | pigs vinegar |  |  |  |
| 'h' | < h > | $\underline{\text { has hot }}$ |  |  |  |
| 'I' | <1> | Walrus sealing | < al > | dismal | final |
| 'm' | $\begin{aligned} & <\mathrm{m}> \\ & <\mathrm{me}> \end{aligned}$ | time many come some |  |  |  |
| 'n' | <n> | many and |  |  |  |
| 'p' | <p> | ships pigs | <pp > | pepper | puppet |
| 'r' | <r > | walrus, cried | < rr > | hurry | barrel |
| 's' | $\begin{aligned} & \langle s\rangle \\ & \langle\mathrm{c}\rangle \end{aligned}$ | walrus said nice slice | < ss > | kindness | kiss |
| 't' | $\begin{aligned} & <\mathrm{t}\rangle \\ & <\mathrm{tt}> \end{aligned}$ | time to little butter | < ed > | thanked | jumped |
| 'v' | $\begin{gathered} \hline<\mathrm{v}> \\ <\mathrm{ve}> \end{gathered}$ | vinegar very have l've | < f > | of |  |
| 'w' | $\begin{gathered} <w> \\ <\mathbf{w h}> \\ <\mathbf{u}> \end{gathered}$ | walrus wax why whether quite quick |  |  |  |
| 'y' |  |  | $\begin{aligned} & \langle y\rangle \\ & \langle i\rangle \\ & \hline i \end{aligned}$ | $\begin{aligned} & \hline \text { you } \\ & \text { view } \end{aligned}$ | $\begin{aligned} & \text { yes } \\ & \text { review } \end{aligned}$ |
| 'z' | <s > | has things |  |  |  |
| 'sh' | <sh > | shoes ships |  |  |  |
| 'ch' | <ch > | chat much |  |  |  |
| 'th'Nv | <th > | things breath |  |  |  |
| 'th'v | <th > | they that |  |  |  |
| 'ng' | < ng > | things sealing | <n> | thanked | ink |

Table 2b: Vowel Sounds found in The Walrus and the Carpenter

| Vowel Sound | Regular spelling | Example words | Unique spelling? | Example word | Another example (not from poem) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 'a' | < ${ }^{\text {> }}$ | has and |  |  |  |
| 'ae' | < a-e> | shame made | $\begin{aligned} & <\text { ai }> \\ & <\text { ay }> \\ & <\text { ey }> \end{aligned}$ | wait <br> play <br> they |  |
| 'ar' | $\begin{aligned} & <\text { ar }> \\ & <\text { a }> \end{aligned}$ | carpenter far after ask |  |  |  |
| 'e' | $\begin{aligned} & <e> \\ & <e \mathrm{e}> \end{aligned}$ | carpenter bread ready | $\begin{aligned} & <\mathbf{a i}> \\ & <\mathbf{a}> \end{aligned}$ | said <br> many | $\begin{gathered} \text { again } \\ \text { any } \end{gathered}$ |
| 'ee' | $\begin{gathered} \quad<e> \\ <e e> \\ <y> \\ <e a> \end{gathered}$ | we be need indeed hurry chiefly sealing sea | < ie > | chiefly | field |
| 'er' |  |  | $\begin{aligned} & \text { <ere> } \\ & \text { <er > } \\ & <\text { ur > } \end{aligned}$ | were oysters turning | her curl |
| 'i' | <i> | things ship |  |  |  |
| 'ie' | $\begin{gathered} <\mathrm{i}> \\ <\mathrm{i}-\mathrm{e}> \end{gathered}$ | kindness ! time besides | $\begin{gathered} <\mathrm{ie}> \\ <\mathrm{y}> \\ <\mathrm{igh}> \end{gathered}$ | cried <br> why <br> night | $\begin{aligned} & \text { tie } \\ & \text { fly } \end{aligned}$ <br> fright |
| '0' | $\begin{aligned} & \langle 0\rangle \\ & \langle\mathrm{a}\rangle \end{aligned}$ | of hot what was |  |  |  |
| 'oe' | <o> | no so | < oa > | loaf | toast |
| 'or' | < ${ }^{\text {> }}$ | walrus all | $\begin{gathered} \hline \text { < or > } \\ \text { < ore > } \\ \text { < al > } \\ \text { < ough > } \end{gathered}$ | for before talk brought | Corn <br> store <br> walk <br> nought |
| 'oy' |  |  | $\begin{aligned} & <\text { oy }> \\ & <\text { oi }> \end{aligned}$ | oysters boiling | $\begin{aligned} & \text { toys } \\ & \text { soil } \end{aligned}$ |
| 'ow' | < ou > | our out | < ow > | now | prow |
| 'u' | $\begin{aligned} & \langle\mathbf{u}\rangle \\ & \langle 0\rangle \end{aligned}$ | us hurry some come |  |  |  |
| 'b00k' |  |  | $\begin{aligned} & \text { <oo > } \\ & <\text { oul }> \end{aligned}$ | good would | $\begin{aligned} & \text { look } \\ & \text { could } \end{aligned}$ |
| 'm00 ${ }^{\prime}$ | <0> | to do | $\begin{aligned} & <\text { oo > } \\ & <\text { ue > } \\ & <\text { oe > } \\ & <\text { ou > } \\ & <\text { ew > }> \end{aligned}$ | $\begin{gathered} \text { too } \\ \text { blue } \\ \text { shoes } \\ \text { you } \\ \text { view } \end{gathered}$ | moon true canoe coupon flew |
| schwa | $\begin{aligned} & <a> \\ & <e> \\ & <e r> \end{aligned}$ | cabbages a the before butter's pepper | $\begin{aligned} & <\mathbf{a r}> \\ & <\mathbf{u}> \\ & <\mathbf{r}> \end{aligned}$ | vinegar walrus our | sugar cactus flour |

What happens if this process is continued through other texts looking for more spellings?
Clearly the number of new spellings found will keep increasing for a while and then start to tail off. We have completed this work and discovered that the 96 spellings already found is just over half of all the common spellings of English. In fact there are fewer than two hundred common regular spellings of sounds in English and we have listed them all in Table 3 overleaf. Those who doubt these findings can, if they wish, fairly rapidly carry out a similar exercise of their own on any texts they choose and compare their findings with those presented here. In addition to looking at 'The Walrus and the Carpenter', we have also looked at the spellings of the first five hundred sounds written in each of the three novels Catch 22 by Joseph Heller, The End of the Affair by Graham Greene and Watt by Samuel Beckett. The combined 1500 sounds of this exercise are ALL spelled using ONLY the common regular spellings of English shown in Table 3. This is complete regularity with no unique spellings at all. We have also looked through dozens of other texts ranging from government publications to newspaper editorials, articles and obituaries. Wherever we look, we find a similar high degree of regularity. As yet we have found no easily available text where more than one speech sound in any consecutive two hundred is represented by a unique spelling.

Beyond the common spellings shown in Table 3 we found only another 54 before starting to run out of words that any normal reader will encounter in a lifetime - without reading some very specialist literature indeed, or being an expert crossword aficionado. Interestingly we came across very few unique spellings. Most readers will be aware of some common oddities such as the 'b00'' in woman, the 'i' in women and the 'o' in yacht (or should it be the 't' in yacht?). But these spellings are really quite unusual. In the first two sections of the lexicon we have included words containing unique or unusual spellings of a sound, but as you will see there are not very many of them at all. Why then has English gained its reputation for being irregularly spelled? We would suggest the following five reasons for discussion:

## 1. The confusion of irregularity with complexity

2. The incorporation of foreign words into the English language
3. Changes in word pronunciation over time
4. Incorrect analysis of English spelling for teaching purposes
5. The fundamentally incorrect Whole Language notion that whole words, rather than speech sounds, are the basic units of literacy.

Table 3:
The Common Spellings of English

| Vowels | Consonants |
| :---: | :---: |
| 'a' Bat | 'b' bed blubber |
| David grape stain day break vein they eight | 'd' dot shudder wriggled |
|  | 'f' fat sniff photo laugh |
| 'ar' barn calm father laugh | 'g' got juggle ghost guest rogue |
| 'air' air care bear there | 'h' head who |
| 'e' peg tread friend said many | 'j' jam gem barge badge suggest |
| he see baby treat thief these 'ee' key skị ceiling | cup kit quit back school excess account trekking acquire unique |
| 'er' stern sir curl work vicar earn | 'ch' chip stitch |
| 'i' pin gypsy English build | 'I' leg fill bottle panel plural pupil |
| 'ie' i̇ly pie nine sky night buy | ' $m$ ' map hammer comb hymn some |
| 'o' pop want | ' n ' $\underline{\text { note runner }}$ knee align done |
| only toe rose oak own soul | 'ng' song drink |
| Though | ' p ' pen apple |
| for jaw more warn pour roar | 'r' rip wrist parrot rhyme |
| 'or walk Paul caught bought water | 's' sock kiss city mice |
| 'oy' toy coin | - loose scent castle |
| 'ow' town mouse bough | 'sh' ship chef tissue suction special passion |
| 'u' sun young ton flood | 't' tent mutter doubt raised |
| 'ue' use unit value news neutron | 'th'nv think 'th'v then clothe |
| 'b00 ${ }_{\text {k }}$ ' look should put | 'v' vat give revving of |
| hoop do you true suit 'm00n' shoe ruin flew flute | 'w' wit where penguin |
|  | 'y' yet |
| schwaadore the custom upon <br> fashion | 'z' $\underset{\substack{\text { zip } \\ \text { possess }}}{ }$ |

## The confusion of irregularity with complexity

British English* contains only 42 - 45 speech sounds depending on accent. A set of only 45 symbols (letters) would therefore be both necessary and sufficient to represent them all. But for many historical reasons we have ended up with a writing system that uses only 26 letters to handle all our speech sounds according to the following ideas.
i. Symbols called letters are used to represent speech sounds
ii. Speech sounds may be represented by one, two, three or even four letters as in the words:
hen choose there weight
iii. Sounds may be represented by more than one spelling as in the words:
baby stain break they eight
iv. A spelling may represent more than one sound as shown by the use of the single-letter spelling < a > in the words:
lazy water was aloud

The English spelling system, as we have indicated, is complex. Nevertheless it can be mastered despite its complexity due to the relatively small number of spellings (graphemes) involved. If the problem was one of irregularity, then in all probability no-one could ever learn to spell accurately.

In some other countries whose languages are written using very few or no examples of ii, iii and iv, literacy instruction is straightforward and results in around $98 \%$ of children mastering their written language over the course of only one academic year. These countries do not have vast numbers of dyslexics supported by professionals and societies claiming that fundamental neurological problems underly their illiteracy.

* British English is the way English is predominantly spoken within the UK, rather than World English which includes a number of variations from Africa, North America/Canada, Australia/New Zealand, Asia, the Caribbean and the Pacific Rim.


## The incorporation of foreign words into the English language

Complete with abbreviations, the English dictionary is now approaching a million entries. One of the reasons for this is the continual adoption and inclusion of words from other languages. Such additions, frequent in the days of empire, are now increasing due to global
communications and the influence of the internet. These terms retain the spellings used in their language of origin: words for example such as Sikh and yacht. This results in a cumulating supply of unique/unusual spellings entering the dictionary. Many literacy 'experts' who hold the erroneous belief that English spelling is irregular do so based upon dictionary searches that reveal these 'foreign' words as though they have equal weight and appear with equal frequency to other words in our daily speech and reading. This gives a completely false picture of the regularity of the spelling throughout most English texts.

## Changes in word pronunciation over time

Ralph Waldo Emerson once observed that, 'Language is the archives of history.' Many changes in pronunciation have occurred during the long history of the evolution of the English language that have not resulted in parallel spelling changes. A good example is the word Wednesday, whose spelling does not completely conform with the sounds that are actually spoken: 'W' 'e' 'n' 'z' 'd' 'ae'. This is because this day of the week was originally named after the Norse God of War, Woden. Originally Wednesday was called Wodnesdaeg (Woden's Day). The spelling of the first vowel in Wednesday has been 'correctly' altered to an $<\boldsymbol{e}>$, rather than an $\langle\boldsymbol{o}>$ to accord with modern pronunciation, but the ' $\mathbf{d}$ ' and 'e' sounds in the middle that are no longer spoken have their spellings retained in the written word. Fortunately, although these matters are of great interest to scholars of English and history, there are insufficient common examples to constitute a problem for accurately focused English literacy instruction.

## Incorrect analysis of English spelling for teaching purposes

Some 'phonic' programmes have caused great harm to the teaching of literacy by introducing the nonsensical notion of so-called 'silent letters'. This rather strange idea of 'silent letters' negates the whole rationality of English spelling by implying that more or less any letter may or may not be a representation of a sound in a word (see examples in Appendix B, page 23). The upshot is that hundreds of thousands of pupils are trying to read and write words using a process in which they 'simplify' words by guessing at what letters could be omitted if they are silent and then single-letter decoding the remainder - a process that invariably fails. An example from clinical practice is the twelve-year-old with a reading age below seven who believed that the letters $<\mathbf{i}>$ and the second $<\mathbf{a}>$ in the word animal were both silent, with the word being decoded as: 'a' 'nuh' 'muh' I'. He therefore logically felt that it should be written as anml.

There are some English words that do contain a spelling of a sound that is not articulated in speech. For a discussion of this issue please see Appendix C, page 25.

## The whole language approach that whole words, rather than sounds, are the fundamental units of literacy

For two thousand years, following the development of the complete alphabet that had been concluded by about the year 800 BC , phonics was the way in which reading and spelling were taught ${ }^{11}$. In 1744, a Frenchman, Abbé Bertaud, invented a sight word programme specifically for teaching children who were hearing and speaking impaired. By 1817, this method had been transported to the USA and used by one Thomas Gallaudet to try to teach hearing children to read. By the middle of the nineteenth century, Whole Language, as it later came to be known, had spread throughout the USA and the UK. The method is as simple today as it was when it was first introduced: it involves asking pupils to memorise words as if they were whole pictures. The problem with this approach is that, for at least half of the general population, this is very difficult indeed and leads to failure from the first moment they enter school for some, and by the end of Year 3 for many others. In fact, even for those of us with very good visual memories, there comes a time when memory space runs out (reckoned by most researchers to rise gradually in early life, reaching a maximum in adulthood of only 1500 to 2000 words, far fewer than the estimated 35000 words needed to read the simplest of the tabloid newspapers).

One of the direct implications of belief in a 'Whole language' approach to literacy is that spelling is perceived as a visual memorisation process with the whole word being visually memorised, correctly or not. This belief has led to the common practice amongst both academics and teachers of viewing spelling as a whole word activity. Thus, if a pupil spells the word spread as spred, then it is the whole word that is usually marked as being wrong rather than just the incorrect spelling of the sound 'e'. However, the word spread does consist of those five sounds 's' 'p' 'r' 'e' and 'd' and the pupil who has written this word as spred has actually spelled four of those five sounds in the word correctly. Furthermore, for the fourth sound 'e', this pupil has chosen one of the only five spellings in English that can represent 'e' out of a total of nearly two hundred common spellings. On any rational analysis we would have to say that the spelling of spread as spred is at least $80 \%$ of the way to being correct. To approach this pupil's response as though it is all wrong might make sense if the pupil had spelled it as < cghu > or something else equally bizarre. But < spred > is not only very nearly the correct dictionary spelling, it is a perfect written communication because the pupil and anyone else reading it will receive the intended communicative meaning. It is not an unreasonable alternative to the way it is written in the dictionary. Of course this does not mean that pupils should not be taught correct dictionary

[^4]spellings, but in order to do so one needs a starting point of accurate understanding of what it is that the pupil needs to know in order to read and spell correctly. In the case of spread, the pupil who writes it as spred either does not know that < ea > is one of the altemative spellings for 'e' in English, or else does know this fact but does not know that it is the < ea > spelling of 'e' required for this particular word. For us to help this pupil we need only to be focused on the spelling of 'e' and how to enable them to link this word to other English words containing the sound 'e' that are also represented by the two-letter spelling < ea >. For example: bread, feather, heavy and ready.

Lack of knowledge and misunderstanding of the above five points have led to quite erroneous and sometimes bizarre ideas about English spelling. The playwright George Bernard Shaw displayed his lack of understanding in the 'witty' remark that the word fish could be spelled in English as ghoti, because < gh > can represent 'f' as in cough, < o > represents 'i' in women and $<\mathbf{t i}>$ represents 'sh' in words like motion. While this is amusing at first glance, with proper analysis it turns out to be a totally fallacious statement: as shown below.
(i) <gh > is a two-letter spelling that represents one of two sounds in English: 'g' at the beginning of some words such as Ghana gherkin ghetto and ghost; and ' $f$ ' at the ghoti end of others such as laugh rough and tough. In the middle of a few words it can represent either ' $\mathbf{f}$ ' or ' $\mathbf{g}$ ': laughter and spaghetti. There are No examples of < gh > representing the sound ' $f$ ' at the beginning of an English word. Traditional spelling 'rules' tend to be very unhelpful because exceptions to them often occur more frequently than the 'rules' themselves. However, in this case, we could construct a perfect rule: within English words that begin with the sound ' $f$ ', that sound ' $\mathbf{f}$ ' is NEVER represented by the spelling < $\mathbf{g h}>$ at the beginning of the word!
(ii) The single letter spelling < o > can represent several vowel sounds in English, but it ghoti only represents the sound ' i ' in the one word, women, where it follows the sound ' $\mathbf{w}$ '. (The sound 'w' is actually a vowel being used as though it is a consonant and , in English, the vowel that follows it is often written using a different letter than normally expected, e.g., was, woman, walrus.)
(iii) The two-letter spelling <ti > only represents the sound 'sh' in three English suffixes that date back to words derived from Latin, <-tion > <-tious > and <-tial>. There are NO examples of <ti> representing 'sh' in any other circumstances. There are, of course, words that end in <ti>, such as yeti, but in all those words the <t> and <i> are single-letter spellings, each representing one sound.

So Bernard Shaw's 'clever' remark about English spelling turns out to have no sound basis in fact at all. Sadly though, it is still regularly cited by those with limited phonic understanding and unfortunately misinforms teachers about how literacy should be taught. The last occasion that we noted its appearance for this purpose was in the Department for Education and Skills
document, Reading Challenge, issued for primary schools in June 2003, as a demonstration of how unreliable phonics can be! ${ }^{12}$

At this point, for any readers who have not already done so, it would be helpful to have a quick look through the following lexicon to get an overview of its contents. These contain many examples of the common spellings shown in Table 3 (page 10), together with many of the other less common ones. While considering the unusual and unique spellings, the point made earlier about the addition of foreign words to the English dictionary without altering their original spellings should become quite clear (although, of course, these words conform to the alphabet code used in their language of origin).

In the alphabetical index to the spellings (Lexicon, pages 92-93) we have shown a total of 245 spellings, only 56 more than in our Table 3 of common spellings. Given that there are only 42 45 speech sounds in English, depending on accent, having over two hundred ways of representing them is complicated. But does our claim that, although complex, the English alphabet code is regular, hold water? The English alphabet consists of only twenty-six letter symbols that are used as spellings either singly, or in various combinations of two, three and four of them. The total overall possible number of letter combinations that could be used as spellings in this manner is therefore as shown in the following table:

| Number of letters in a spelling | Number of possibilities |  |  |
| :---: | :---: | :---: | ---: |
| one | $\rightarrow$ | $1 \times 26=$ | 26 |
| two | $\rightarrow$ | $26 \times 26=$ | 676 |
| three | $\rightarrow$ | $26 \times 26 \times 26=$ | 17576 |
| four | $\rightarrow$ | $26 \times 26 \times 26 \times 26=$ | 456796 |
|  |  |  | Total $=475020$ |

Furthermore, any of these spellings could be used to represent any, or all, of the 45 possible English speech sounds, giving a grand total of $475020 \times 45=21,375,900$ possibilities! But in our analysis so far we have only got to 244 plus a few dozen unique ones (shown in the vowel and consonant sections of the lexicon). If we estimate a realistic total of around three hundred or so spellings actually used out of the possible $21,375,900$, this represents only $0.00014 \%$. In other words, fewer than one in a hundred thousand of these possibilities are actually used. In fact, not even half of the possible two-letter combinations are used.

[^5]In the discussion so far the question of whether all these spellings stand in isolation from each other has yet to be addressed. If they are isolated then each and every one would need to be accurately memorised by everyone learning to read and write English. Fortunately this is not necessary. The so-called spelling rules that are often taught in school classrooms are generally worse than useless because there are no simple guaranteed rules at the WHOLE WORD level. But if the English spelling system is examined at the INDIIIDUAL Sound level, various patterns can be seen to emerge (and this is very important because writing is a process of segmenting each word into its component sounds, which are then written [ie spelled] in the same sequence as they are spoken). Some of these patterns are shown below.

1. In Appendix D, pages 26-27, we have given examples of how some consonant spellings are related to each other as follows.
(i) Two-letter spellings in the form of doubled consonants almost always represent the same sound as the single consonant does on its own. However, because very little is totally simple in English, the two-letter spelling <cc> can represent both the sounds ' $\mathbf{k}$ ' and ' $\mathbf{s}$ ' as does the single-letter < $\mathbf{c}>^{*}$.
(ii)

Consonant spellings can often have an <e> added to them and still represent the same sound.
(iii)

Consonant spellings can often have $\mathbf{a n}<\mathbf{h}>$ added to them and still represent the same sound.

[^6]2. Each of the twenty-six letters of the alphabet might be used in spellings, wholly or in part, to represent consonants, vowels or both. The actual representations that we do use are shown below, with comment underneath.


As can be seen, relatively few letters are used to represent the vowels. Everyone is familiar with <aeio \& u >, but not always with the others. < w > and < $\mathbf{y}$ >, although used as consonants, are actually very short vowel sounds that are only 'heard' as they slide into the following sound. (Try holding an 'ee' sound for a few seconds and then following it with 'e' 's'. What you will hear is, 'eeeeeeeeyes'. 'w' is a little trickier!') Given the relative lack of letters assigned to the vowels it cannot be surprising that < $\mathbf{y}>$ and < w > appear in various two-letter vowel spellings together with < a eo \& u >. Readers might also like to consider the following observations.
(i) < I > is only involved in representing the vowel sounds 'ar' and 'or' as in calm and chalk? Otherwise it always represents 'I', which can be spelled as < I II al el il ul le \& lle $>$.
(ii) <t>only appears in vowel spellings of 'French' words ending in the two-letter spellings < et > ( sound 'ae' in ballet) and < ot > ( sound 'oe' in Merlot ).
(iii) In the words laugh and tough the final ' f ' sound is represented by the two-letter spelling < gh >.
In the words gherkin and ghost the initial ' $\mathbf{g}$ ' sound is also represented by < $\mathbf{g h}>$. Apart from these two situations the letters $\mathbf{g}$ and $\mathbf{h}$ only appear together as the final two letters of the three and four-letter vowel spellings < igh aigh eigh \& ough >.
(iv) Although ' $\mathbf{r}$ ' is a genuine consonant, the letter < $\mathbf{r}>$ appears in over half of the two and three-letter spellings of vowels where letters other than < a eio and u>are involved, see table below.

```
Sound Spellings
    'air' < aer air ear ere >
    'ar' < ar >
    'er' < er ir or ur ear ere urr >
    'or' < aur or ore our >
schwa < ear er ere ir ur urr >
Whether or not a word whose spelling includes one of the above is spoken with
an included ' \(r\) ' sound is normally dependent upon the accent of the speaker.
Please see Appendix E (page 28) for a brief explanation of this.
```

Attention has been drawn to all the above patterns to highlight the fact that leaming to read and spell English does not involve having to remember hundreds and hundreds of disconnected
and unrelated spellings. In fact, when considering all the various spellings and the patterns of their constituent letters, the amount of memorisation needed to become a fluent reader and speller is actually much less than might initially be thought from our list of 189 common spellings. This conclusion is of central importance for the tuition of literacy because it points unambiguously at the necessity for high quality phonic tuition. Furthermore, the complexity of the system is such that tuition needs to address the complete nature of the English alphabet code, carefully introducing it from its simplest to its most complex conceptual ideas (as shown in the box in the upper half of page 11). Failures in the accuracy of tuition at every point cause significant numbers of pupils to become confused and to retreat to a variety of failing strategies.

In addition to the phonic knowledge and understanding of the alphabet code, pupils also need to be taught the fundamental skills necessary for handling speech sounds: blending, segmenting and manipulation. All fluent and competent readers have developed these three skills to a level of automaticity: meaning that they operate seamlessly in the background, so that when reading the whole of the reader's conscious attention can be directed at the meaning of the text, not the fundamental underlying process of decoding for reading or encoding for writing/spelling. High quality daily practice of all three of these skills is necessary until this automaticity has been fully developed. What we find happens in the pupils we teach is that, when they have grasped the concepts underlying the English alphabet code and their ability to handle speech sounds is approaching automaticity, then their rate of progress starts increasing exponentially. This often happens when we have only formally introduced seventy to eighty of the common graphemes. The rest then start being rapidly filled in as a result of the confident reading of many texts. Much of the information gained by pupils is then understood and manipulated at a level below conscious awareness. As a final point, the memorisation of specific spellings largely comes about by the forging of associative links between words that contain sound(s) that are not represented by the most statistically likely spelling: for example, the names of medical conditions derived from Greek, where the sound 'r' is represented by the three-letter spelling < rrh > and the sound 'ee' by the two-letter spelling < oe> in diarrhoea.

## Synopsis of the key ideas underlying the previous discussion.

1. English spelling is regular, but complex.

It is the complexity of spelling that causes many pupils (and teachers) to lose their focus on the real phonic nature of the alphabet code with the resulting unacceptably high levels of illiteracy throughout the English speaking world.
Always remember that English spelling is far less complex than is generally believed to be the case.
2. Reading and spelling need to be considered at the individual sound level rather than at a whole word level.
It is individual sound(s) within words whose spelling may be problematical to remember, not the whole word. For example, the word < gigantic > is an eight--sound sequence with all eight sounds represented by single-letter-spellings. Most pupils have little, if any, difficulty with spelling the last seven < igantic >, but may use the single-letter-spelling <j> to represent the first sound, 'j'. We do not believe that it makes any sense to say that these pupils cannot spell the word < gigantic >, we would just say that they cannot remember (or do not know) which spelling of 'j' to use at the beginning of the word.
3. There are fewer than $\mathbf{2 0 0}$ common spellings of the $\mathbf{4 5}$ English speech sounds.

But far fewer than the total of common spellings need to be remembered as independent or discrete spellings, as indicated by the contents of Table 3 on page 10.
4. Weak vowel sounds are the commonest sounds in the English language and need very careful attention within literacy tuition. (see schwas in Appendix A, p21)
Traditionally, weak vowel sounds, and their relationships to the sounds around them within normal English speech rhythms, have been completely ignored in traditional literacy tuition methods.

Our discussion is now followed by a lexicon containing the various spellings of English with examples of words in which they occur. The left hand columns give examples of spellings at the beginnings of words, the central columns for the middles of words and the right hand columns for the endings. For ease of reference, all the information is repeated twice. The first section shows all the spellings for each of the English consonants, the second does the same
for the vowels, and then all the spellings for both consonants and vowels are sequenced in their alphabetical order. In our own training of teachers in how to teach reading and spelling, we find it may take one to two years for any individual to shed all their misunderstandings about the English alphabet code. Remember that if you are uncertain about the sounds in a word you must always listen to yourself and others speak it. If you sit studying the way words are spelled you may unwittingly end up trying to alter your speech to conform to the various spellings. This is NOT how writing works! Writing is about encoding the speech sounds of every single individual's speech, not about making their speech conform to what is written. This is the very essence of phonics that is the foundation upon which a successful literacy tuition programme must be built! Those who wish to seek further information about the way in which the ideas expressed in this booklet have been developed into a whole school literacy tuition programme should visit the www.sounds-write.co.uk website where they will find information about our training courses and the success of the Sounds~Write programme when used in schools.

## Appendix A: Schwas - the weak vowel sounds of English

A schwa is a weak vowel sound that is not spelled as it sounds. Schwas are the most common sounds in the English language and vary with accent. ${ }^{13}$ The problem with schwas is not that they cause problems for pupils when they are reading; as long as the word is in the pupil's repertoire, they don't. It is when pupils are spelling that the problems occur. There is also sometimes a problem for fluent readers who try to alter their pronunciation to match spelling: for example, we do not say tant at the end of important! The following word list contains examples of schwas with various spellings of them underlined. Note that, not every underlining will be a schwa for every person that reads it, but most will.
a the about Anna random secret museum Arthur curtain colour Rupert beggar litre murmur figure cushion jealous.

Because schwas sound something like 'uh', 'i' or 'ah' and no specific single-letter or combination of letters has ever been assigned to them, we have ended up with more ways of representing schwas than any other sound in English. Most of these spellings also represent at least one other sound as well. This makes them quite confusing, especially when we look at a particular word in which the spelling of the schwa starts reminding us of other sounds - and unless we are very careful we start 'tweaking' our speech to see if we can bring it more in line with what the spelling might suggest.

The English language contains schwas because there are natural rhythms to our speech that, particularly in two-syllable and longer words, result in one syllable being dominant and others weaker. This is because English, unlike many other languages, is a stress-timed language. It is the weaker syllables in which we often say and hear schwas. In a word like chicken, for instance, the first syllable chick is dominant and the en is the weaker (subdominant) syllable. When spoken normally, the word is usually pronounced either as chickin or as chickun and this is why we see the word misspelled so frequently in one of these two ways. Obviously we do not want to change the way people speak, but when writing words which contain schwas or in which a sound or sounds are elided (see Appendix C), we encourage our pupils to say the word very precisely in a 'spelling voice'.

In addition, many words of more than two syllables often contain more than one schwa or weak vowel sound. These may all cause spelling difficulties unless correct

[^7]teaching strategies (see Sounds~Write literacy tuition programme) are put in place to help remember them. In order to be effective, all good spelling programmes need to incorporate sensible strategies to cope with schwa sounds.

## Appendix B: The notion that some letters can be silent.

At a very basic level it should be obvious that all letters are silent. They are just marks on paper and are not equipped with lungs and vocal chords. It is human beings that make sounds and human beings that use written symbols (letters) to represent them. This is what the alphabet code was designed for! In order to teach phonically this point needs to be fully understood. When it is not, then literacy tuition stops being phonic and becomes graphemic. Its focus then switches from, 'How do we represent our speech?' to 'How do we explain our writing?' It is easy to see why spelling becomes difficult to understand and devices such as silent letters become employed to try to explain it. Unfortunately, many children who have not grasped the true nature of the English alphabet code become stuck at, or revert to, single-letter decoding as their predominant strategy for reading words when their whole-word strategies let them down. (Single Letter Decoding is attempting to read all words as though each letter within them is a single -letter spelling. For example, trying to read the word choose by saying the six sounds ' $k$ ' ' $h^{\prime}$ 'o' 'o' 's' 'e' and then attempting to blend them all together.)

## Some examples of letters that could be analysed as being 'silent' are shown in the table below.

| a : | meat rental | j: | Haji | s: | kiss |
| :---: | :---: | :---: | :---: | :---: | :---: |
| b : | comb babble | k: | knee trekking | t: | better thistle |
| c : | scent accurate | $\mathrm{I}:$ | Doll | u : | soup laugh |
| d : | badge paddle | m: | hammer mnemonic | V : | revving |
| e: | George neutron | n : | solemn running | W: | blow |
| f : | stiff | 0: | leopard | y: | play kidney |
| g : | right | p : | Ripple | Z: | dazzle |
| h : | when rhubarb | q : | acquire |  |  |
| i: | pain field pupil | r: | berry star |  |  |

(If uncertain about any of the above then check with the lexicon to see if the non-underlined letters can represent all the sounds needed for the word.)

The table shows that a teaching method that uses the concept of silent letters results in the letter $<\mathbf{x}>$ being the only letter in the English alphabet that can be trusted to be representing a sound. But $\langle\mathbf{x}\rangle$ itself is unusual in that it is a single-letter spelling that represents two sounds, not one: ' $\mathbf{k}$ ' + 's' or ' $\mathbf{g}$ ' + 'z', depending upon particular words and/or the accent of the speaker.

Clearly the concept of silent letters is not one derived from any phonic understanding of the way in which our speech is represented by the English alphabet code. Teaching the notion of silent letters can only cause pupils confusion in respect of their need to understand that English speech is written accurately sound by sound from left to right across the page. We are not pretending here that learning to spell accurately is easy. It isn't! It requires that pupils first and foremost be taught how the English orthographic (spelling) code works and then to have that knowledge reinforced through the medium of carefully structured lessons (e.g. the Sounds~Write mediated learning approach), and finally to give pupils lots of reading to expose them repeatedly to the spellings of all the common words. Unless the way in which spelling works is accurately understood and taught, many pupils are unlikely to achieve the levels of competency necessary for the development of fluent reading and spelling.

## Appendix C: Elision: The tendency for native English speakers to shorten and abbreviate words.

Most of us like to speak quickly and efficiently, resulting in some sounds not being articulated. The commonest examples being of the type she's and he's for she is and he is. This also happens in words like sandpit and government where the 'd' and ' $n$ ' sounds are rarely articulated. We could write these as either san'pit and gover'ment. These situations are also affected by pronunciation changes that can occur slowly over many centuries and even millennia, resulting in some sounds being represented in the spelling of words although they are no longer used in speech. Local accents result in some words having different pronunciations depending on where you are in the UK, or indeed any of the other English speaking regions of the world. A good example of this is the word mortgage that for most of us is pronounced as 'morgage'; however, in many areas within Yorkshire the 't' is clearly articulated and is one of the strongest sounds in the word.

Words where elision has occurred over time are frequently and incorrectly cited by opponents of phonic tuition as contradictions to the idea that our language is written down phonetically sound by sound as it is spoken. These arguments need firmly rebutting. Always remember that, in common English texts, the number of these words constitutes less than half of one percent of the total. When teaching pupils to read and spell we find no difficulty in discussing the above issues with them. They usually find such discussions interesting because it increases their general knowledge and understanding of the English language. Most importantly, it also gives them appropriate memories that facilitate their future accurate spelling of these 'unusual' words.

## Appendix D: Patterns to be found in Consonant Spellings.

Spelling 'rules' in English just don't work and cause confusion because, as the
Sounds~Write programme makes abundantly clear, there are many ways of spelling most sounds (see Table Three, page 10). The number of spellings (graphemes) for consonants that we have included in the lexicon is 114 . Fortunately this is well inside the capacity of human visual memory for these sorts of symbols. Even so 114 is quite a lot for the 24 consonant sounds. Mercifully, there are various patterns that occur in our spellings that reduce the overall amount of complexity. Providing we are taught to read properly in the first place, these patterns considerably reduce and simplify what we need to remember to read accurately. We have noted three of these patterns below involving 47 of the 114 common consonant spellings. Patterns also exist for the vowel spellings and, where necessary, these are taught within the Sounds~Write programme.

1. A single-letter spelling of a consonant can be doubled and still represent the same sound as in the following examples.

| Sound | Spelling | Example Word | 'Doubled' Spellings | Example Word |
| :---: | :---: | :---: | :---: | :---: |
| 'b' | b | black | bb | bubble |
| 'k' | c | cat | cc | hiccup |
| 'k' | k | sink | kk | chukka |
| 'd' | d | dream | dd | ladder |
| 'f' | $f$ | fish | ff | staff |
| 'g' | g | glad | gg | giggle |
| 'j' | g | gem | gg | suggest |
| 'j' | j | jam | jj | hajj |
| 'I' | 1 | lips | II | swallow |
| 'm' | m | mouse | mm | common |
| 'n' | n | snug | nn | bonnet |
| 'p' | p | topic | pp | kipper |
| 'r' | r | tree | rr | carrot |
| 's' | c | city | cc | flaccid |
| 's' | s | step | ss | missing |
| 't' | t | hat | tt | cattle |
| 'v' | $v$ | level | vv | navvy |
| 'z' | z | zoo | z7 | pizza |

2. A consonant spelling can often have an <e > added to it and continue to represent the same sound, as in the following examples.


## 3. A consonant spelling can often have $\mathrm{an}<\mathrm{h}>$ added to it and continue to represent the same sound, as in the following examples.



## Appendix E: The phoneme ' $r$ '.

Try this simple experiment: Say cart to yourself and then say carry. When you said cart, depending on your accent of English, you may or may not have heard the sound 'r' in the word; whereas in carry, you would almost certainly have heard it.

In English, we make a distinction between what are technically called rhotic and non-rhotic accents. 'Speakers of both types of accent will articulate the 'r' sound in words like round and carry (where it occurs before a vowel). Speakers of rhotic accents will also produce an 'r' when it is not followed by a vowel (as in the words car and cart). ${ }^{14}$

When the word fair is spoken by those having non-rhotic accents we cannot hear the sound 'r'. However, when we add the vowel 'ee' to the word fair, thereby turning it into the word fairy, we will invariably hear the sound 'r' being articulated between the 'air' and the 'ee'.

For the purpose of simplicity in this booklet, the following lexicon and in our teaching of literacy, we have decided to treat spellings such as < air > and < ar > as representing one sound even though for those with rhotic accents we can hear them articulate an 'r' at the end of words like fair and car. In the case of words such as fairy, where the sound 'air' precedes the vowel 'ee' we can hear both of the sounds 'air' and 'r' articulated by rhotic and non-rhotic speakers alike.

[^8]
## The Lexicon Part 1: The Consonants

|  | Sound | Example | Page No. |
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## 'b'

| b | bad <br> band | bin | album | cobra | fabre | Mabel | Bob | grab |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | baber | cube | fibre | Nobel | cab | hub |  |  |
| bang | bottle | amble | debit | habit | noble | cub | rob |  |
| bean | bread | bible | Debra | kebab | orbit | club | slab |  |
|  | beaver | bump | cabin | debug | libel | robot | drab | stub |
|  | bend | bus | cable | elbow | Libra | table | fib | tube |


'ch'



| tch | butcher | pitcher | catch | itch |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
| 'ch' |  | hatchet | ratchet | crutch | match |
|  |  | itching | satchel | ditch | patch |
|  |  | ketchup | watchman | etch | scratch |
|  |  | kitchen | witches | fetch | watch |
|  | matchless | wretched | hatch | witch |  |

Unusual/unique spelling: question.
In Czechoslakian the two-letter spelling < cz > represents the sound 'ch'.
In Italian the single-letter spelling < c > can represent 'ch': $\underline{\text { cello and vermicelli. }}$

## 'd'




| dh | dhal <br> dhansak <br> dharma <br> dhena | dhoti <br> dhow | Jodhpur jodhpurs sandhi |
| :--- | :---: | :---: | :--- |
| dhobi <br> dhobi <br> dhole | Note also that the trigraph ddh <br> represents 'd' in Buddha and its <br> derivatives. |  |  |
|  |  |  |  |


| ed |  |  | avowed moaned <br> breathed played <br> calmed ruined |
| :---: | :--- | :--- | :--- |
|  |  |  | d' <br> closed splattered <br> groaned trained <br> hammered veered |

## 'f'

| f | fabric | flab | afoot | drift | leafy | raft | brief | if |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | father | four | after | elfin | left | refer | clef | knife |
|  | fax' | fox | awful | fifty | lift | sift | deaf | leaf |
| feel | friend | befog | gift | lofty | sofa | elf | oaf |  |
|  | felon | full | café | hefty | mafia | soft | golf | reef |
|  | fibre | fuse | comfy | infer | often | unfed | half | self |




| gh 'f' |  | Coughed <br> Draughty <br> Laughter <br> Roughly <br> Toughen | cough tough <br> chough trough <br> enough  <br> laugh  <br> rough  <br> slough  <br>   |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |


| ffe |  |  | gaffe <br> giraffe |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

## ' ${ }^{\prime}$

| $\mathbf{g}$ <br> ' g ' | gag | glad | again | Bengal | dangle | ogre |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | gale | glory | go | bigamy | degree | polygon | beg | gig |
|  | garden | goose | agree | biography | dragon | regal | big | nag |
|  | ear | rab | argue | bugle | figure | segment | bog | $\log$ |
|  | gilt | grape | August | bungle | forget | tiger | bug | mug |
|  | give | gum | began | cigar | igloo | ugly | drug | sag |



| gu | guarantor <br> guardian | guide <br> guillotine <br> guelder | beguile <br> guile <br> beguine <br> guild | guilty <br> Guinea <br> roguish |  |
| :--- | :---: | :---: | :---: | :---: | :--- |
| Guernsey | guilty <br> guerrilla <br> guildford <br> guest | guguard <br> guiser <br> guitar | guillemot <br> guillotine |  |  |
|  |  |  |  |  |  |


| gh | Ghana <br> gharry <br> ghastly <br> ghazi | ghetto <br> ghost <br> ghoul | Afghan <br> aghast <br> Baghdad | ugh |
| :--- | :---: | :---: | :---: | :--- |
| ghee |  | burgher <br> sorghum <br> gherkin |  |  |


| gue <br> 'g' | vaguely | brogue <br> drogue <br> fatigue <br> fugue <br> Hague <br> league | morgue plague Prague rogue vague |
| :---: | :---: | :---: | :---: |


| $\mathbf{x}$ |  | exacerbate exasperate <br> exact exempt <br> exaggerate exert <br> exalt exhort <br> examine exotic <br> example exist |  |
| :--- | :--- | :--- | :---: | :--- |
|  |  |  |  |

## 'h'

| $\mathbf{h}$ | hair | herb | adhere | enhance | mishear |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :--- |
| 'h' |  | half | hip | antihero | exhale | mishap |
| has | hiss | anyhow | inhabit | mishit |  |  |
| hat | honey | behaviour | inhaler | peahen |  |  |
| health | hoop | behind | inherit | rehab |  |  |
|  | hem | hydrogen | egghead | mayhem | sunhat |  |


| wh | who <br> whole <br> whom <br> whose |  |  |
| :--- | :--- | :--- | :--- |

## 'i'

| g | gem Gemini gender general genetic gerbil | germinate gesture giant ginger gist gypsy | agency egest <br> agenda Egypt <br> agile engender |  | magistrate regent regiment region | Roger tagetes vegetable | $\begin{aligned} & \text { age } \\ & \text { cage } \end{aligned}$ | stage wage |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| j |  |  |  |  |  |  |  |
|  |  |  | angioma | engine |  |  | pag |  |
|  |  |  | gest | ogical |  | register | vigilant | rage |  |



| 'j' | $\begin{aligned} & \hline \text { jab } \\ & \text { Janet } \\ & \text { jade } \\ & \text { jam } \\ & \text { Japan } \\ & \text { jelly } \\ & \hline \end{aligned}$ | jet | ajar | major | HajijijRajTaj (Mahal) |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | joke | banjo | object |  |
|  |  | jockey | deejay | project |  |
|  |  | John judge just | enjoy hijack logjam | rajah ramjet reject |  |


| ge | George <br> Geoffrey <br> geography | burgeon <br> dungeon <br> pigeon <br> surgeon <br> sturgeon | barge <br> beige <br> garage <br> large |
| :--- | :--- | :--- | :--- |
|  |  |  | urge |



Unusual/unique spelling: gradual.

Note: In English, single-letter and doubled-letter consonants normally represent the same sound. There are no traditional examples for < jj >, but from the Muslim tradition we are now starting to see the word hajji that refers to a Muslim who has made the pilgrimage to Mecca.

## 'k'

| c | camera | cold | acne | incline | pancake | scatter | Arabic | magic |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | cap | comb | acorn | include | rancour | scold | Baltic | panic |
| carrot | crab | acre | ocarina | rococo | scorch | clinic | phobic |  |
| class | crocus | across | octet | ruction | scorn | fabric | picnic |  |
|  | claw | cuddle | action | October | scampi | scrub | frolic | talc |
|  | claw |  |  |  |  |  |  |  |
| cliff | cup | exclaim | octopus | scarlet | scuttle | hectic | tragic |  |
|  |  |  |  |  |  |  |  |  |




| ck |  |  | backlog | cockney | heckle | necklace | back |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 'k' | kick |  |  |  |  |  |  |
|  |  | backup | cuckoo | hockey | nickel | clock | luck |
|  |  | bicker | docker | jackal | packet | duck | pick |
|  |  | bucket | fickle | jacket | pickle | fleck | sack |
|  | cackle | gecko | Jackie | reckon | frock | sick |  |
|  |  | cockle | hacker | mackerel | trickle | Jack | snack |





| qu |  | bouquet <br> chequer liquorice |
| :--- | :--- | :--- | :---: | :--- |
| chaquis |  |  |
| cliquey | marquee |  |
| conquer | parquet |  |
| croquet | Raquel |  |
| liquor | yanquis |  |$\quad$.



| cq |  | acquaint <br> ' k | acquit <br> acquaintance <br> acquiesce <br> acquitted <br> acquire |
| :--- | :--- | :--- | :--- |
| acquisition |  |  |  |$\quad$|  |
| :--- |


| kh | khadder Khmer <br> khaki Khartoum | gymkhana | Ankh (mythical river <br> of the Discworld) |
| :--- | :--- | :--- | :--- |
| khamsin | Khyber |  |  |
| khan | khat |  |  |
| khedive |  |  |  |$\quad$| sikh |
| :--- |


| $\mathbf{x}$ |  | exceed excite <br> excel <br> excess <br> excelsior <br> except <br> excise |  |
| :--- | :--- | :--- | :--- |
|  |  |  |  |


| kk |  | chukka <br> chukker <br> dekko <br> pukka <br> trekking |  |
| :--- | :--- | :--- | :--- |
|  |  |  |  |

## 'I'

| 'I' | lad last late leg let letter | $\begin{gathered} \hline \text { Lily } \\ \text { lie } \\ \text { log } \\ \text { loop } \\ \text { Luke } \\ \text { lump } \\ \hline \end{gathered}$ | alert alter atlas below belt bold | colic <br> Colin <br> delay <br> delta <br> eleven <br> elm | false <br> films <br> fold <br> glass <br> glimpse gold | glue gulp Helen igloo Islam melon | ale <br> boil <br> cool <br> fool <br> goal <br> nail | nil pole reel tail whale wheel |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| II $\begin{array}{ll} \\ & \\ & \text { I' }\end{array}$ | Ilama Ilano Lloyd |  | ballet bellow Billy cellar cello dollar | dollop follow frilly grilled jelly Iollipop | miller <br> pallet <br> pillar <br> pillow <br> pollen <br> shallow | swallow trellis valley villa wallet yellow | Bill <br> bull <br> cell <br> doll <br> fall <br> grill | Jill <br> pull <br> sell <br> still <br> tall <br> yell |


| al <br> 'I' |  |  | basal crystal decal fatal final legal | medal <br> metal <br> nasal <br> pedal <br> plural <br> regal |
| :---: | :---: | :---: | :---: | :---: |


| el |  |  | barbel | gravel |
| :--- | :--- | :--- | :--- | :--- |
|  | 'I' |  | cancel | hostel |
|  |  |  | diesel | kernel |
|  |  |  | duffel | marvel |
|  |  |  | funnel | morsel |
|  |  |  | gospel | nickel |



| Ile |  |  | Annabelle | gazelle |
| :---: | :---: | :---: | :---: | :---: |
|  | 'I' |  | bagatelle | Lucille |
|  |  |  | Bastille | Moselle |
|  |  |  | Braille | nacelle |
|  |  |  | Chenille | Nashville |
|  |  |  | Estelle | pastille |

Unusual/unique spelling: symbol.
' ${ }^{\prime}$ '

| m ${ }^{\text {m }}$ | mat | mos | admire | bump | fumble | member | Ad | glum |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | melt | move | amaze |  | hamper | moment | alarm |  |
|  | middle | mud | amber | comic | human | nomad | brim | room |
|  | ink | muscle | mple | damp | humbug | Pamela | chum | seem |
|  | mist | must | animal | Emily | jumbo | remark | exam | swim |
|  | moor | my | bamboo | empty | lemon | simple | farm | term |


| mm |  | comma <br> common | grammar | grammes | slummet |
| :---: | :--- | :---: | :---: | :---: | :---: |
| shimmer | summer | summit |  |  |  |
| 'm' |  |  |  |  |  |
|  | dilemma | grommet | simmer | swimmer |  |
|  | Emma | hammer | slimmer | trammel |  |
|  | flummox | mammal | stammer | trimmer |  |
| glimmer | Mohammed | strummed | uncommon |  |  |


| mb <br> 'm' | bombshell climber plumber thumbnail | aplomb benumb climb comb corymb crumb | entomb <br> lamb <br> limb <br> rhumb thumb <br> womb |
| :---: | :---: | :---: | :---: |


| me |  |  | become | lissome |
| :---: | :---: | :---: | :---: | :---: |
| 'm' |  | centime | outcome |  |
| consume | some |  |  |  |
|  |  |  | fulsome | thyme |
|  |  |  | income | twosome |
|  |  |  | irksome | welcome |


| mn 'm' |  |  | autumn column condemn contemn damn dislimn | hymn solemn |
| :---: | :---: | :---: | :---: | :---: |


| mme <br> 'm' |  | femme <br> gramme <br> kilogramme <br> oriflamme <br> programme |  |
| ---: | :--- | :--- | :--- |
|  |  |  |  |

## ' n '




| gn | gnarled | gnome | designer | align |
| :--- | :---: | :---: | :---: | :---: |
|  | gnash | gnomic | foreigner | benign |
| gnat | gnomon | impugned | design |  |
| gnathic | gnostic | misalignment | foreign |  |
| gnathite | gnu | oppugner <br> gneiss |  | impugn |
|  |  | signed | misalign |  |


| kn | knack <br> knead | knit <br> knob | bowknot <br> doorknob <br> kneecap <br> knocker <br> kneel | foreknow |
| :--- | :---: | :---: | :---: | :---: |
|  | knot | misknow |  |  |
|  | knife | know | slipknot |  |
| knight | knuckle | topknot |  |  |




| pn | pneumatic <br> pneumatocele <br> pneumatology <br> pneumatosis <br> pneumoconiosis <br> pneumonia |  |  |
| :--- | :--- | :--- | :--- |

Unusual/unique spelling: mnemonic.

## 'ng'

| $\mathbf{n}$ |  | anger | Frank | monkey | tank |  |
| :--- | :--- | :---: | :---: | :---: | :---: | :--- |
| 'ng' |  |  |  |  |  |  |
|  |  |  | angler | inky | pink | think |
|  |  | bank | jangle | rank | tingle |  |
|  |  | blanket | jingo | singlet | twinkle |  |
|  |  | bingo | junk | sunken | wink |  |
|  |  | drink | link | tangled | wrangle |  |


| ng | banging | lungs | tongs | among | giggling |  |
| :--- | :--- | :--- | :---: | :---: | :---: | :---: |
| 'ng' |  |  |  |  |  |  |
|  |  | clingy | singer | twangs | bung | rushing |
|  | gangs | singing | wringer | bring | sing |  |
|  | gongs | strength |  | cling | strong |  |
|  | kings | strings |  | driving | wring |  |
|  | length | things |  | flung | walking |  |

In some accents the sound ' ng ' is only heard in the middle of words where it is represented by the spelling < $\mathbf{n}>$. In these accents words ending in < ng > the < n > and the < g > are single letter spellings representing the sounds ' $\mathbf{n}$ ' followed by ' $\mathbf{g}$ '.

Note also the four-letter spelling from French: meringue and tongue.

## ' $\mathbf{p}^{\prime}$




## 'r'




| rh | rhapsody rhodium <br> rhesus rhombus <br> rhinitis rhubarb <br> rhino rhumba <br> rhizome rhyme <br> Rhodes rhythm | Durham | The three-letter spelling < rrh > also represents the sound 'r' in a number of medical nouns for rather unpleasant medical conditions such as diarrhoea and cirrhosis. |
| :---: | :---: | :---: | :---: |


| wr |  | wrack wring <br> wraith wrinkle <br> wrangle writing <br> wrapper wrong <br> wreck wrote <br> wrench wrought |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  |  |  |  |  |

## 's'

| $\begin{array}{\|lll} \hline \mathbf{s} & \\ & & \\ & & \\ \hline \end{array}$ | sack sock |  | absur | cyst | fast | just | blocks | lumps |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Santa set sink | on | also | desk | foster | lost | claps | notes |
|  |  | spot | basic | discuss | gospel | mascot | ducks | pips |
|  |  | step | best | dust | hostel | nest | fits | treats |
|  | kip | stuck | casino | east | insect | onset | gaps | takes |
|  | sleep | Susan | cask | Easter | jester | risk | huts | votes |


| ss |  | blossom | crossly | Jessie | mussel | abyss | gloss |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 's' | bosses | dresser | kissed | odyssey | boss | guess |  |
|  |  | chassis | fossil | lesson | possum | bless | press |
|  | classic | glasses | lissom | professor | class | Swiss |  |
|  | cosset | guesses | massive | Sussex | crass | miss |  |
|  | crosses | hussar | message | vessel | dress | toss |  |


|  |  |  | expose |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | axis axle | excuse Exeter |  | proxy saxifrage | Alex apex | $\begin{aligned} & \hline \text { fox } \\ & \text { jinx } \end{aligned}$ |
|  | axon | exit | hexagon | saxophone | coax | $\operatorname{lynx}$ |
| $\begin{array}{ll} \mathbf{x} & \\ & \downarrow \\ & \text { 'ks' } \end{array}$ | boxes dextral | expect expense | lexicon maximum | $\begin{gathered} \text { text } \\ \text { vexed } \end{gathered}$ | $\begin{aligned} & \text { cox } \\ & \text { flex } \end{aligned}$ | $\underset{\text { relax }}{\operatorname{mix}_{x}}$ |
|  | exclaim | expert | oxen | waxy | fix | wax |


| c |  | Cedric | city | accelerate | acid | incident |
| :--- | :---: | :---: | :---: | :---: | :---: | :--- |
| Ceiling | civil | accept | cancel | incision |  |  |
| 's' |  |  |  |  |  |  |
| celery | cyma | accident | eccentric | necessary |  |  |
| cell | cygnet | acetate | except | receive |  |  |
|  | cinema | cymbol | acetic | excite | recent |  |
| cinnamon | cyclops | acetyl | icicle | recess |  |  |



| sc <br> 's' | $\begin{gathered} \hline \text { scene } \\ \text { scenery } \\ \text { scenic } \\ \text { scent } \\ \text { sciatica } \\ \text { science } \\ \hline \end{gathered}$ | ```scientist scilla Scilly Isles scimitar scissors``` | descend descender fascinate nascent rescind tumescent |
| :---: | :---: | :---: | :---: |




| ps | psalm | psyche |  |
| :--- | :---: | :---: | :--- |
| Psalter | psychic |  |  |
|  | pseud | psychology |  |
| pseudonym | psychiatry |  |  |
| psittacosis | psychometry |  |  |
| psoriasis | psyllium |  |  |
|  |  |  |  |


| cc |  | flaccid |  |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
|  |  |  |  |


| sce | coalesce <br> 's' |  |  |  |  | reminisce |
| ---: | :---: | :---: | :--- | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

## 'sh'

| sh | shadow | shield | airship | dashed | gumshoe | rasher | awash | gnash |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| shake | shirt | banshee | dishes | Joshua | rickshaw | blush | posh |  |
| 'sh' | shark | shock | bishop | earshot | kinship | upshot | bush | marsh |
| she | shop | bolshee | fashion | marshal | usher | dash | rash |  |
|  | shed | short | cashew | Fisher | pushes | washer | fish | splash |
| shelf | shut | cushion | geisha | pushup | warship | flesh | wash |  |
|  |  |  |  |  |  |  |  |  |


| ch | chagrin | chemise | cachet | machete |  |
| :--- | :---: | :---: | :---: | :---: | :--- |
| 'sh' | chalet | chevron | cachou | machine |  |
| chamois | chic | fiches | Michele |  |  |
| chandelier | chiffon | flechette | Michigan |  |  |
|  | chassis | Chopin | fichu | ruching |  |
| chef | chute | nachure | sachet |  |  |


| ti |  | action | collection | elation | initial |  |
| :--- | :--- | :---: | :---: | :---: | :---: | :--- |
| 'sh' |  | addition | condition | emotion | junction |  |
|  |  | attention | definition | essential | location |  |
|  |  | caption | deviation | evolution | lotion |  |
|  |  | carnation | direction | fiction | motion |  |
|  |  | caution | education | formation | partial |  |


| ci |  | antisocial | especial | racial |  |
| :--- | :--- | :---: | :---: | :---: | :--- |
| 'sh' |  | artificial | financial | social |  |
|  |  | atrocious | judicial | special |  |
|  |  | commercial | malicious | specious |  |
|  | crucial | official | vicious |  |  |
|  |  | delicious | precious | vivacious |  |



| ssi <br> 'sh' | accession admission discussion egression emission obsession | omission passion percussion permission recession scission |
| :---: | :---: | :---: |


| che |  |  | cache cloche creche fleche fiche gauche | louche niche panache quiche Roche troche |
| :---: | :---: | :---: | :---: | :---: |


| sch | schmuck <br> schnapps <br> schwa <br> 'sh' | Escher <br> schnitzel | eschew |
| :---: | :---: | :--- | :--- |
| schnozzle |  | Kirsch |  |
| Schubert |  |  |  |
| Schumann |  | mensch |  |


| s | Sean <br> sugar <br> sure |  |  |
| :--- | :--- | :--- | :--- |


| shi | cushion <br> fashion |  |  |  |  |  |
| ---: | :--- | :--- | :--- | :---: | :---: | :---: |
|  |  |  |  |  |  |  |



Unusual/unique spellings: fascism fuchsia ocean luxury.

## 't'



| tt |  |  | attach | battle | fettle | Ottawa | bitt |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| attatt |  |  |  |  |  |  |  |
|  |  |  | 't' |  |  |  |  |
|  |  |  | attack | better | gutter | otter | Brett |
|  |  | attain | bitten | kettle | pattern | butt |  |
|  |  | attic | bottle | litter | scatter | putt |  |
|  |  | attire | bottom | motto | tattoo | Scott |  |
|  |  | batter | cattle | nettle | utter | sett |  |




| te |  |  | baste | private |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
|  |  |  |  | carte |
| r' | route |  |  |  |
|  |  |  | cote | salute |
|  |  |  | curate | senate |
|  |  |  | palate | svelte |
|  |  | piste | waste |  |


| tte |  |  | Annette Colette <br> burette gavotte <br>   <br>   <br>   <br>   <br>   <br>   <br>   <br> butte gazette <br> casette matte <br> culotte palatte <br> curette pipette |
| :---: | :---: | :---: | :---: | :---: |


| th |  | Thai Thomas <br> Thailand Thomism | Anthony <br> Esther |  |
| :--- | :---: | :---: | :--- | :--- |
|  | 't' | thaler <br> thompson <br> thalweg <br> Thames <br> thyme <br> thebe |  |  |


| pt | ptarmigan <br> pteridology <br> pterodactyl <br> pteropod <br> pterosaur <br> ptomaine |  |  |
| :--- | :--- | :--- | :--- |
|  | 't' |  |  |

Unusual/unique spelling: pthisis.
'th' - not voiced

| th | thank | thin | Arthur | earthly | Luther | Nathan | bath | Judith |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | thaw | think | asthma | epithet | menthol | panther | breath | length |
| 'th' $\sim$ | theft | third | author | faithful | method | pathos | cloth | tenth |
| thick | thorn | Bertha | fifthly | methyl | python | fourth | tooth |  |
|  | thief | three | Catherine | Gothic | monthly | tenthly | growth | warmth |
|  | thigh | thud | Cynthia | isthmus | mythical | urethra | health | wreath |
|  |  |  |  |  |  |  |  |  |

## 'th' - voiced

| th | than | there | another | feather | mouthed | seething |
| :--- | :---: | :---: | :---: | :---: | :---: | :--- |
| that | these | betrothed | Heather | neither | smother |  |
| 'th'v | the | they | brother | hither | rather | teething |
| their | this | clothed | leather | rhythms | thither |  |
| them | those | father | loathing | scathing | weather |  |
| then | though | further | mother | scythes | whether |  |
|  |  |  |  |  |  |  |


| the 'th'v |  |  | breathe <br> clothe <br> lathe <br> lithe <br> loathe <br> sheathe | soothe sunbathe swathe teethe tithe writhe |
| :---: | :---: | :---: | :---: | :---: |

$$
\text { ' } \underline{\text { v' }}
$$

| v |  | vacuum | view | advent | device | havoc | oven |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :--- |
| valve | visit | anvil | evade | ivory | pivot |  |  |
|  | 'v' |  |  |  |  |  |  |
| venom | vital | avoid | even | level | raven |  |  |
| Venus | vocal | cavern | event | movie | savage |  |  |
|  | venue | volt | civic | favour | navy | seven |  |
|  | vermin | vulgar | David | giving | oval | uvula |  |


| ve |  |  | above olive <br> carve prove <br>   <br>   <br>   <br>   <br>   <br>   <br>   <br>   <br>   <br>   <br> dove massive <br> have move <br> have shove <br> love valve |
| :---: | :---: | :---: | :---: | :---: |


| vv |  | navvy <br> revving |  |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
|  |  |  |  |


| f |  | This is the only full entry where the <br> spelling occurs in just a single word. <br> However, as the word of is one of the <br> commonest words in English, it would be <br> rather odd to view it as an irregularity! | of |
| :--- | :--- | :---: | :--- |

Unusual/unique spelling: Stephen.

## ' $\mathbf{w}$ '




| wh 'w' | whale <br> what <br> whelk <br> while <br> whipped <br> whirl | whisk whisker whistle white whoop why | anywhere cartwheel elsewhere flywheel nowhere pinwheel | somewhere |
| :---: | :---: | :---: | :---: | :---: |


| o | once <br> one <br> oneness <br> oneself <br> onetime | anyone <br> everyone <br> someone |  |
| :--- | :--- | :--- | :--- |

' ' $^{\prime}$

| y |  | yam | yodel | banyan papaya |
| :--- | :---: | :---: | :--- | :--- |
|  | yard | yoga | beyond |  |
| year | York | canyon |  |  |
| yeast | you | halyard |  |  |
| yell | yummy | Kenya |  |  |
| yes | yuppies | midyear |  |  |

Unusual/unique spelling: view.

## 'z'

| $\mathbf{z}$ |  | Zambia | zinc | Amazon | Brazil | gizmo | lizard | ablaze |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| zapper | zipper | Aztec | dozen | hazard | Mozart | amaze | ionize |  |
|  | 'z' |  |  |  |  |  |  |  |
| zeal | zombie | azure | dozing | hazel | Nazi | doze | laze |  |
| zebra | zoom | ozone | enzyme | hazily | razor | faze | maze |  |
|  | Zen | Zulu | bazaar | gazebo | kazoo | unzip | froze | prize |
| zero | zygote | bezel | gazump | lazily | wizard | gaze | size |  |


| $\mathbf{s}$ |  |  | absorb | clumsy | Joseph | museum | beans | hers |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 'z' |  |  |  |  |  |  |
|  |  | basil | cosmic | laser | music | begs | his |  |
|  |  | Bosnia | cosy | Lesley | nasal | clubs | legs |  |
|  |  | bosom | desert | loser | resent | digs | pens |  |
|  |  | busy | dismal | misery | resin | figs | trends |  |
|  |  | casual | easily | mosaic | Susan | frogs | wags |  |


| zz ${ }^{\text {z }}$ |  | buzzer <br> dazzled <br> drizzle <br> embezzle <br> fizzle <br> frazzled | grizzly <br> guzzle <br> jacuzzi <br> mezzo <br> mizzen | nozzle razzle <br> nuzzle sizzled <br> piazza swizzle <br> pizza unmuzzle |  | buzz whizz |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | fizz |  |
|  |  |  |  |  |  | frizz |  |
|  |  |  |  |  |  | fuzz |  |
|  |  |  |  | puzzle quizzed |  | jazz |  |


| se |  |  | advise | noise |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |
|  |  |  |  |  |


| ze |  |  | adze | gauze |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  | Belize |
| maize |  |  |  |  |
|  |  |  | breeze | ooze |
|  |  |  | bronze | sleaze |
|  |  |  | freeze | sneeze |
|  |  | frieze | wheeze |  |


| $\begin{array}{ll} \hline \mathbf{x} & \\ & \downarrow \\ & \mathrm{gz}^{\prime} \end{array}$ | exacerbate exact exaggerate exalt examine example | exasperate exempt exert exhort exotic exist |  |
| :---: | :---: | :---: | :---: |


| $\mathbf{x}$ |  | Xanadu  <br> Xavier Xerxes <br> xylophone  <br> xenophobia  |  |
| :--- | :---: | :---: | :---: |
| xenon <br> xerosis <br> Xerox |  |  |  |


| ss | Aussies <br> possess <br> scissors |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :---: | :---: | :---: |
|  |  |  |  |  |  |  |

Unusual/unique spelling: business

## 'zh'

| si 'zh' | abrasion abscision adhesion affusion allusion collision | collusion confusion corrosion decision effusion incision | envision excision explosion recision illusion implosion | invasion occasion revision |  |
| :---: | :---: | :---: | :---: | :---: | :---: |


| $\mathbf{s}$ |  | measure <br> pleasure <br> 'zh' |  |
| :--- | :--- | :--- | :--- |
|  |  | treasure <br> unusual <br> usual <br> visual |  |

Unusual/unique spellings: genre seizure.

## The Lexicon

## Part 2: The Vowels

|  | Sound | Example | Page No(s). |
| :---: | :---: | :---: | :---: |
| 1 | 'a' | flat | 61 |
| 2 | 'ae' | lady | $62-3$ |
| 3 | 'ar' | star | 64 |
| 4 | 'air' | air | 65 |
| 5 | 'e' | pet | 66 |
| 6 | 'ee' | me | $68-9$ |
| 7 | 'er' | her | 70 |
| 8 | 'i' | pin | 71 |
| 9 | 'ie' | pie | $72-3$ |
| 10 | 'o' | pot | 74 |
| 11 | 'oe' | toe | $76-7$ |
| 12 | 'or' | for | $78-9$ |
| 13 | 'oy' | toy | 80 |
| 14 | 'ow' | cow | 81 |
| 15 | 'u' | bun | 82 |
| 16 | 'ue' | cue | 83 |
| 17 | 'boo | book | 84 |
| 18 | 'moon' | moon | $86-7$ |
| 19 | schwa | about | $88-90$ |

## ' $\underline{1}$ '



Unusual/unique spellings: meringue plaid.

## 'ae'

| a | acorn | aphid | baby | favour | radar | table |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :--- |
| acre | apricot | chamber | flavour | radio | Tamar |  |  |
| Aden | April | change | gravy | sacred | taxation |  |  |
| agent | apron | crazy | haste | sabre | vague |  |  |
| alien | Asia | David | lazy | sacred | vapour |  |  |
| angel | atrium | famous | paper | stable | volcano |  |  |


| a-e | age | arcade | decade | haze | rebate |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ale | became | fame | invade | same |  |
| ape | behave | gale | lemonade | stale |  |
| ate | cape | game | male | tape |  |
|  |  | create | gate | name | vale |
|  | date | hate | pane | whale |  |


| ai | aid | bait | faint | mail | Spain |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :--- |
| 'ae' | ailment | baize | gain | pail | stain |  |
| aimless | brain | grain | pain | swain |  |  |
| aitch | chain | mail | paint | tail |  |  |
|  | ain't | daily | main | rainy | train |  |
|  |  | daisy | maize | raise | vain |  |


| ay | Ayckbourn | cayenne | frayed | Playful | away | pay |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 'ae' | Aylesbury | Cayman | layer | playoff | bay | say |
|  |  | Clayton | mayonaisse | playpen | bray | slay |
|  |  | crayon | okayed | strayed | clay | stay |
|  |  | drayman | playact |  | day | sway |
|  |  | flayed | player |  | gray | tray |


| ei |  | abseil | heinous | veil |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 'ae' |  |  |  |  |  |
|  |  | beige | Leila | vein |  |
|  | Beirut | reign | unveil |  |  |
| deign | rein |  |  |  |  |
|  | feign | Seine |  |  |  |
| feint | skein |  |  |  |  |


| ey | heyday | bey | obey |  |
| :---: | :---: | :---: | :---: | :---: |
| 'ae' | Leyden (jar) | convey | osprey |  |
|  |  | grey | survey |  |
|  |  | hey | they |  |
|  |  |  | lamprey | trey |
|  |  |  | ley | whey |


| eigh | eight | freight | inveigh <br> neigh |
| ---: | :--- | :--- | :---: |
| 'ae' |  |  | reweigh <br> sleigh <br> weigh |
|  |  |  |  |


| et |  |  | ballet bouquet buffet cabaret cachet chalet | croquet gourmet Monet piquet sachet sorbet |
| :---: | :---: | :---: | :---: | :---: |


| ea <br> 'ae' | break <br> great <br> steak |  |
| :---: | :---: | :---: |

Unusual/unique spellings: straight gauge.

## 'ar'

| ar | arc | armpit | alarm | charm | farm | sharp | boxcar | jar |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| arcade | army | apart | chart | hard | smart | caviar | mar |  |
| archer | armada | barb | Clark | lard | start | cigar | radar |  |
| arctic | artery | bark | dark | partner | tarnish | far | sitar |  |
| argue | arthritis | barn | darn | scar | tartan | guitar | sonar |  |
| aria | artist | card | dart | scarf | Tarzan | isobar | tar |  |



| al | almond <br> alms | balm <br> calf <br> calm <br> car' | qualm |
| :--- | :--- | :---: | :--- |
| half |  |  |  |
| palm |  |  |  |
| psalm |  |  |  |$\quad$|  |
| :--- |


| au | aunt <br> aunty | draught <br> laugh <br> laughter | In some accents <br> many of these <br> words on the left <br> will be 'a' rather <br> than 'ar' |
| :--- | :--- | :--- | :--- |


| ear <br> 'ar' | heart <br> hearth <br> hearty |  |
| ---: | :--- | :--- | :--- |
|  |  |  |



Unusual/unique spellings: bazaar shah.

## 'air'

| air | air | airlock | bairn | affair | funfair |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| 'air' | aircraft | airmail | cairn | Blair | impair |
| aircrew | airman | fairy | chair | midair |  |
| airframe | airsick | hairy | corsair | mohair |  |
|  | airhead | airspace | stairway | despair | repair |
|  | airless | airstrip |  | flair | stair |


| ere | ere <br> erelong <br> erenow <br> erewhile | thereabouts <br> thereafter <br> therefore <br> therein <br> thereof <br> thereupon | whereabouts <br> whereas <br> wherefore <br> whereupon <br> wherewith | elsewhere <br> somewhere <br> there |
| :--- | :---: | :---: | :---: | :---: |
| where |  |  |  |  |


| ear | Earhart (Amelia) |  | bear overbear <br> 'air'  |  |
| :---: | :--- | :--- | :--- | :--- |
|  |  |  | bugbear | pear |
| forbear | swear |  |  |  |
| footwear | tear |  |  |  |
|  |  |  | forswear | wear |
|  |  |  | menswear |  |


| are |  |  | aware | nightmare |
| :---: | :---: | :---: | :---: | :---: |
| 'air' |  | blare | scare |  |
|  |  | Clare | share |  |
|  |  |  | dare | snare |
|  |  | flare | spare |  |
|  |  |  | glare | stare |


| aer | aerial aerometer <br> aerobatic  <br> aerobic  <br> aeronaut  <br> aerodrome  <br> aeroplane  |  |  |
| :---: | :---: | :---: | :--- |
| aerofoil <br> aerology |  |  |  |

Unusual/unique spellings: heir mayor prayer their.
Note: When the sound 'air' is followed by another vowel sound this forces our Speech production to insert a clear 'r' sound between the two - as in fair and fairy.

| e |  | ebony | element | amend | get | mend | tether |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :--- |
| eddy | elephant | bent | help | offend | unless |  |  |
| edge | emerald | crest | ibex | pet | very |  |  |
| edit | end | den | jet | quest | wet |  |  |
| egg | ever | eventual | kelp | rend | yell |  |  |
| elder | exit | felt | letter | sever | zenith |  |  |


| ea |  | bread feather leather ready <br> breakfast healthy meadow treasure <br> dead heather measure wealthy <br> dealt heaven peasant weapon <br> dread heavy readily weather <br> dreamt instead Reading zealous |
| :--- | :--- | :---: | :---: | :---: | :---: | :--- |


| a | any <br> anyhow <br> anyone <br> anything <br> anywhere | many |  |
| :--- | :--- | :--- | :--- |


| ei |  | heifer <br> Leicester <br> leisure |  |
| :--- | :--- | :--- | :--- |
|  |  |  |  |


| eo |  | jeopardy <br> Leonard <br> leopard |  |
| :--- | :--- | :--- | :--- |
|  |  |  |  |

Unusual/unique spellings: aesthetic bury friend said says.
Note: The word said is derived from the original past tense of say: sayed.
'ee'

| ea | each | easily | beak | heal | lean | seamer | cowpea | sea |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 'ee' | eager | east | beam | heap | meal | steal | flea | tea |
| eagle | Easter | bean | heat | neatly | team | guinea |  |  |
| Ealing | easy | beaten | Jean | peace | treaty | lea |  |  |
|  | ease | eat | clean | jeans | peacock | veal | pea |  |
| easel | eaves | feat | leaf | seal | weak | plea |  |  |


| e | Eden | e-mail | anuresis | genial | legal | medium | be |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 'ee' | edict | emu | arena | genome | lemur | Mekong | he |
| Egypt | enate | beta | geodesic | leonine | neon | me |  |
| ego | ephor | debrief | hero | lethal | penalise | she |  |
| egret | equal | debunk | hexahedron | media | query | we |  |
| eject | evil | female | ketone | mediate | reflex |  |  |


| ee $\begin{aligned} & \\ & \text { 'ee' }\end{aligned}$ | eel eerie | beef been | deem feed | heed jeep | reef seen | agree coffee | rupee <br> scree |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 'ee' |  | beer |  | leek | seed | glee | three |
|  |  | beet | geek | meet | seem | knee | tree |
|  |  | deep | geese | need | week | payee | trustee |


| $\mathbf{i}$ | lan | adios | Anita | casino | idiom | chilli | Maori |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 'ee' | Ionesco (Eugene) | alias | arias | cerise | iliac | corgi | mini |
|  |  | albino | audio | curious | machine | deli | Miami |
|  |  | alien | avian | Denise | odium | Gobi | sushi |
|  |  | amigo | axiom | Elliot | opium | khaki | Toni |
|  |  | amino | bikini | icier | suite | kiwi | Vicki |


| e-e | Eden | accede | effete | obese | stele |
| :--- | :--- | :---: | :---: | :---: | :---: |
| 'ee' | eke | breve | gene | obsolete | Steve |
| Eve | cede | grebe | plebe | Swede |  |
| even | complete | Ilene | recede | Thebes |  |
|  | evening | Crete | impede | scene | theme |



| y | Ypres | anyhow | Amy | funny |
| :---: | :---: | :---: | :---: | :---: |
|  |  | anyway | Andy | icy |
| 'ee' |  | babyish | army | ivy |
|  |  | ladybird | baby | jury |
|  |  |  | busy | oily |


| ae | Aeolian <br> aeon <br> Aesop <br> aesthesia <br> aesthetic | Achaeans <br> chamaeleon <br> haematite | ischaemia <br> orthopaedic <br> haematology | paean <br> haemaphilia <br> haemostat |
| :--- | :---: | :---: | :---: | :--- |


| ei | either(I say,you say?) | ceiling <br> 'ee' | Neil <br> receipt <br> receipt | Sheila |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |
|  | receive | receive |  |  |  |
|  | Reims | Reims |  |  |  |
|  | Keith | seize |  |  |  |
|  | Madeira | seizure |  |  |  |


| ey <br> 'ee' |  |  | Audrey bimey bogey Dewey doyley galley | kidney limey money monkey Surrey Turkey |
| :---: | :---: | :---: | :---: | :---: |

> Unusual/unique spellings: fiord people quay Phoebe.
> (In Greek < oe > represents 'ee').

| ur | urban | urgent | burly | church | furlong | murky | cur | recur |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| urbane | urn | Burma | churlish | hurl | purse | concur | slur |  |
| 'er' | urchin | Ursula | burnt | curb | hurt | scurvy | demur |  |
|  | Urdu | urticaria | burp | curly | Kurds | surf | fur |  |
|  | urge | urticate | bursar | curt | lurk | turf | incur |  |
|  | urgency | urtication | burst | furl | murder | Turkey | occur |  |


| ir | irk | birch | dirty | girth | smirk | astir |  |
| :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: |
|  | 'er' | Irving | Irwen | bird | firs | kirk | smirth |
| bestir |  |  |  |  |  |  |  |
|  |  | birth | first | mirth | third | fir |  |
|  |  | chirp | flirt | shirk | thirst | sir |  |
|  |  | dirk | gird | shirt | Virgo | smir |  |
|  |  | dirge | girl | skirt | whirl | stir |  |


| er | erg | Ernest | adverb | berth | germ | Serbia | aver |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 'er' | ergo | erst | adverse | Bertha | herb | sermon | defer |
| ergot |  | advert | Bertie | merger | serve | her |  |
| erk |  | assert | cervix | nerve | term | refer |  |
| ermine |  | astern | fern | permit | verbose |  |  |
|  | erne |  | Berlin | gerbil | person | vermin |  |



| or |  | word | worship |  |
| :--- | :--- | :--- | :--- | :--- |
| 'er' | work | worst |  |  |
| worker | wort |  |  |  |
| world | worth |  |  |  |
|  |  | worm | worthy |  |
| worse |  |  |  |  |



Unusual/unique spellings: chauffeur journey myrtle were.

## 'i'

| i |  | idiocy | inhibit | bit | grin | pin | sit |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :--- |
|  | if | into | din | hip | pit | tip |  |
|  | 'i' |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| ignite | Islam | engine | lift | quit | trip |  |  |
| illicit | irritate | fifty | lily | ripple | video |  |  |
|  | imitate | it | fist | little | risk | wit |  |
|  | index | itch | gin | nifty | sift | zip |  |


| $\mathbf{y}$ |  | ytterbium | acrylic | glyph | mystery | pygmy |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  | 'i' |  |  |  |  |
|  |  | bicycle | gypsy | mystical | rhythm |  |
| calypso | hymn | myth | sympathy |  |  |  |
|  |  | crypt | lymph | nymph | symphony |  |
|  |  | cynic | lynch | onyx | tricycle |  |
| cyst | lyric | physics | typical |  |  |  |


| $\mathbf{u}$ |  | busily <br> business <br> busy <br> minute |  |
| :--- | :--- | :--- | :--- |
|  |  |  |  |



Unusual/unique spellings: English seive women.
Note: Depending on accent, some weak vowel sounds (schwas) can be realised in speech as either an 'i' or a schwa ('uh' - sound).
'ie'

| i | I | iodine | align | China | friar | quiet | alibi | fungi |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | icy | ion | bible | cider | giant | rhino | alkali | Gemini |
| 'ie' | Idaho | lowa | briar | climb | grind | slimy | alumni | hi-fi |
| idea | irate | blind | Diana | Orion | spicy | cacti | loci |  |
| identity | ire | bison | drier | phial | trial | cumuli | nuclei |  |
| idol | irony | child | final | prior | wild | foci | rabbi |  |




| i-e | ice | bide | dime | gibe | life |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 'ie' | iceberg | icebox | bike | dine | hide | like |
| icecap | bile | dive | hike | lime |  |  |
|  |  | bite | file | hive | mice |  |
|  | Iceland | cite | fire | jive | Mike |  |
|  |  | dice | five | knife | nice |  |



| ai | aisle <br> aioli <br> aikido | baiza <br> banzai <br> haiku | taiga <br> taipan | Taipei |
| :--- | :---: | :---: | :---: | :--- |
|  |  | naiad | Taiwan | Kansai |
|  |  | Sinai |  |  |
|  |  | Tai |  |  |


| eye | eye <br> eyeball <br> eyeglass <br> eyelash <br> eyelet <br> eyelid | buckeye sockeye <br> cockeye walleye <br> deadeye | Note that both <br> $<$ eye $>\&$ igh $>$ |
| :---: | :---: | :---: | :---: |
|  | frogeye | are three-letter |  |
| ninkeye | spellings that |  |  |
| shuteye | represent the |  |  |
| sound 'ie'. |  |  |  |


| ei |  | Eiffel (Tower) | feisty | Pleiades |
| :--- | :---: | :---: | :---: | :--- |
|  | Eiger (Mountain) | Heidi | Reich |  |
|  | Einstein (Albert) | heist | seismic |  |
| Eisenhower (Dwight) | Leibniz | seismology |  |  |
| eisteddford (Wales) | leitmotif |  |  |  |
|  |  |  |  |  |
| either (I say,you say?) | Oneida |  |  |  |


| ay | ayah <br> ayatollah <br> Aymara | Maya <br> Mayakovsky | Paraguay <br> Uraguay |
| :--- | :--- | :---: | :--- |
|  |  |  |  |



| uy <br> 'ie' |  |  | buy <br> guy <br> Guy |
| :---: | :---: | :---: | :---: |

Unusual/unique spellings: aisle height island.

## ' $\mathbf{O}^{\prime}$




| au | au (revoir) <br> Australia <br> Austria <br> Austronesia | because <br> laurel <br> sausage |  |
| :--- | :--- | :--- | :--- |

Unusual/unique spellings: cough knowledge.

## 'oe'

| o | obese  <br> obey Oklahoma <br> omega  | bold | comb | hobo | post | ago | Euro |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ocean | only | bony | fold | hold | Rover | also | hero |
| ogle | open | both | ghost | most | Rowan | biro | Hugo |
| ogober | duo | jumbo |  |  |  |  |  |
| okay | oval | clover | Gobi | noble | total | go | photo |
| oldest | over | cold | golf | notice | volt | echo | solo |


| oa | oaf | bloat | foal | Joan | road | cocoa |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| oak | cloak | foam | load | roast | whoa |  |
| oakland | coal | goal | loaf | soak |  |  |
| oast | coax | goat | loan | soap |  |  |
| oat | croak | groan | moan | toad |  |  |
| oath | float | hoax | moat | toast |  |  |
|  |  |  |  |  |  |  |


| o-e |  | abode | dome | lobe | rode |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| 'oe' |  | alone | dose | lope | Rome |
| chose | globe | mole | rope |  |  |$|$


| ow | own <br> owner | bowl slowly | aglow | oxbow |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 'oe' | blown | below | pillow |  |
|  | glowing |  | borrow | show |
|  | grown |  | elbow | snow |
|  | known |  | glow | throw |
|  | rower |  | know | widow |


| Oe |  |  | aloe | oboe |
| :---: | :---: | :---: | :---: | :---: |
| 'oe' |  | doe | pekoe |  |
|  |  |  | floe | sloe |
|  |  |  | foe | throe |
|  |  |  | hoe | tiptoe |
|  |  |  | Joe | toe |



| au au (gratin) mauve' <br> taupe <br> $y y y y$   |  |  |
| ---: | :--- | :--- | :--- |


| ol 'oe' | folk <br> yolk |  |
| :---: | :---: | :---: |


| ough |
| ---: | :---: | :---: | :--- |
| 'oe' |

Unusual/unique spellings: beau brooch owe sew yeoman.

| aw | awful | bawdry | drawn | pawl | tawny | bylaw | jigsaw |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 'or' | awfully | awkward | bawl | gawky | pawn | tawse |
| awl | brawl | hawk | prawn | trawler | claw | macaw |  |
|  | awn | brawny | hawse | shawl | yawl | draw | paw |
|  | awn | dawn | lawn | sawn | yawn | flaw | raw |
|  | awning | drawer | pawky | tawdry |  | gnaw | thaw |


| or 'or' | or Orlando <br> orb ornate <br> orbit ornament <br> organ orphan <br> orgone Orpheus <br> orient orthotic |  | acorn adorn born | dormitory dormouse force | Iord morning north | sort sport <br> storm | decor for |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | chorus corm dormant | Ford horn horse | port short shorn | torn worn York |  |


| au | auburn | August | baud | fraud | laud |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Auckland | auk | cause | gaudy | maul |  |
| auction | austere | Claud | Gaul | Paul |  |
| audible | author | daub | gauntlet | Saul |  |
| audit | auto | daunt | gauze | taunt |  |
| auger | autumn | faun | haul |  |  |


| a | all | ball | eyeball | netball | small |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | also | alter | befall | hall | overall |
| all | squall |  |  |  |  |
|  |  | call | halter | pinball | stall |


| augh <br> 'or' | aught | caught daughter distraught fraught haughty naught | naughty slaughter taught Vaughan |
| :---: | :---: | :---: | :---: |


| ore |  |  | ashore <br> before <br> bedsore <br> core <br> encore <br> explore | ignore <br> more <br> score <br> sore <br> spore <br> restore |
| :---: | :---: | :---: | :---: | :---: |


| oar | oar | board | boar |
| :---: | :--- | :--- | :--- |
| 'or' | coarse | hoar |  |
|  |  | cupboard | roar |
|  | hoard | soar |  |
|  |  | uproar |  |


| ough | ought | bought wrought <br> brought <br> fought <br> 'or' <br> nought <br> sought <br> thought |  |
| ---: | :--- | :--- | :--- |


| our <br> 'or' | bourne course court fourth | mourne Osbourne | four pour |
| :---: | :---: | :---: | :---: |


| ar |  | award <br> dwarf <br> swarm | warm <br> 'or' |  |
| :--- | :--- | :---: | :---: | :---: |


| aur |  |  | dinosaur pterosaur <br> 'or'  |  |
| ---: | :---: | :---: | :---: | :---: |
|  |  |  | gorgosaur <br> stegosaur <br> heterodontosaur |  |

$\left.\begin{array}{|l|l||ll|l|}\hline \text { al } & & & \text { chalk } & \text { talk } \\ \text { stalk } & \text { walk }\end{array}\right]$

| awe | awe <br> awesome <br> awestruck |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |


| oor | door <br> floor <br> 'or' |  |  |  |  |  |
| ---: | :--- | :--- | :--- | :---: | :---: | :---: |

Unusual/unique spelling: broad.
'oy'

| oi | oik | oily | anoint | cloister | groin | noise | hoi-poloi |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 'oy' |  | oil | oink | appoint | coil | hoist | ovoid |
| oilcan | ointment | avoid | coin | invoice | quoit |  |  |
| oiled |  | boil | cuboid | join | spoil |  |  |
|  | oilskin |  | broil | doily | loin | troika |  |
|  | oilstone |  | choice | foil | loiter | void |  |


| oy | Oyl (Olive) <br> oyster | Boyd | Lloyd | ahoy | joy |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 'oy' | boys | loyal | convoy | Roy |  |
|  |  | destroyer | loyalty | cowboy | tannoy |
|  |  | enjoys | royal | decoy | toy |
|  |  | Floyd | soya | destroy | Troy |
|  | groyne |  | enjoy | viceroy |  |

Unusual/unique spelling: buoy.

## 'Ow'

| ow | owl | blowsy | crowd | gown | shower | allow | how |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ow' | owlet | bowels | drown | jowl | towel | brow | now |
| owlish |  | brown | drowsy | power | town | chow | prow |
|  |  | browse | flower | prowl | trowel | cow | row |
|  |  | clown | fowl | renown | vowel | dhow | scow |
|  |  | cower | glower | scowl | yowl | endow | vow |


| ou | ouch | bouncy | gouge | mouse | rouse |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 'ow' | ounce | couch | hound | mouth | sound |
|  | our | county | house | noun | south |


| au <br> 'ow' | gauss pilau tau sauerkraut umlaut |
| :---: | :---: |


| ough |  | drought | bough <br> 'ow' |
| ---: | :--- | :--- | :--- |
|  |  |  |  |

## 'u'



| O |  | other <br> otherwise | above | come | dove | month | son |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | among | comfort | glove | mother | thorough |  |  |
|  | oven | become | cover | London | none | ton |  |
|  |  | borough | discover | love | nothing | tongue |  |
|  | brother | done | monk | shovel | won |  |  |
|  |  | colour | doth | monkey | some | worry |  |



| 0 <br> $\downarrow$ 'wu' | once one oneness oneself onetime | anyone everyone someone |
| :---: | :---: | :---: |


| OO |  | blood <br> flood |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |

## 'ue'

| $\mathbf{u}$ | ufology | unisex | acuity | duel | fury | studio |
| :--- | :---: | :---: | :---: | :---: | :---: | :--- |
| 'ue' | ukulele | unit | acumen | duet | fusion | stupid |
| Ukraine | uranium | amulet | duo | futile | stupor |  |
| unicorn | Utah | Cuba | duty | intuit | Stuart |  |
|  | unicycle <br> unique | utopia |  |  |  |  |
| uvula | document | fuel | monument | unusual |  |  |
|  | fugitive | sputum | usual |  |  |  |



| eu | eucalyptus eunuch <br> Eucharist euphemize <br> 'ue' aleurone <br> Beulah neurone <br> euchre euphonium <br> feudal neutral <br> Euclid euphoria <br> neural neutron |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :--- |
|  | eugenic | Euphrates |  |  |
| eulogy | eureka | neuroma <br> neuron | pneumatic <br> pneumonia |  |
|  |  |  |  |  |


| ew | ewer | dewy | newly |  |
| :--- | :--- | :--- | :---: | :--- |
| 'ue' | hewn | news |  |  |
| fewer | newt |  |  |  |
| mewl | newton |  |  |  |
|  |  | mews | pews |  |
| newel | pewter |  |  |  |
|  |  |  |  |  |


| ue |  | Tuesday | argue | miscue |
| :---: | :---: | :--- | :---: | :---: |
| 'ue' |  |  |  |  |
|  |  |  | avenue | queue |
|  |  | cue | revue |  |
|  |  |  | due | statue |
|  |  |  | fondue | undue |
| issue | venue |  |  |  |

Unusual/unique spellings: beauty nuisance.
Note: The sound 'ue' is actually two sounds, 'y' running into ' ${ }_{\mathrm{m}} \mathbf{0 0 _ { \mathrm { n } }}$ ' sounding like the word you.
So the spellings above are actually representing two sounds. This is a second example example of an English letter, $\langle\mathbf{u}>$, acting like $<\mathbf{x}>$ in that it is representing two sounds, both of which have other spellings that can represent them.
There is also an accent issue, with 'ue' and ' $\mathrm{mOO}_{\mathrm{n}}$ ' often being interchangeable dependent upon local accent. For pragmatic purposes, maintaining this little 'fiction' that 'ue' is a single sound makes the spelling easier to follow and much simpler for young children in their initial learning about how the spelling system works - by the time some of them sense this anomoly their spelling accuracy has already been secured!

## 'bOOk'

| u 'bOOk' | umlaut | armful <br> awful <br> baleful <br> bashful <br> bull <br> careful | dutiful fearful fretful full gleeful harmful | hateful helpful hopeful joyful Kabul lawful | painful <br> pitiful <br> rueful <br> Rufus <br> useful <br> wilful |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 00 'bOOk' |  | afoot <br> book <br> brook <br> cook <br> crook <br> foot | good hook hookworm look nook rook | $\begin{aligned} & \hline \text { shook } \\ & \text { soot } \\ & \text { stood } \\ & \text { stook } \\ & \text { took } \\ & \text { wood } \end{aligned}$ | woof wool |  |
| oul 'boók' |  | could <br> should would |  |  |  |  |

Unusual/unique spelling: woman.
'moㅇn'

| oo | oompah | aloof | hoof | moon | smooth | bamboo | shampoo |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| oops |  | balloon | hooligan | noon | snooker | boo | skidoo |
| ooze |  | bloom | hoopla | pool | soon | cuckoo | taboo |
|  |  | cool | loom | proof | stool | kazoo | tattoo |
|  |  | food | loop | roof | whooper | igloo | too |
|  |  | goose | mood | root | zoom | kangaroo | zoo |







| ${ }^{\prime} \mathrm{mOO}_{\mathrm{n}}{ }^{\prime}$ | lose womb | ado |
| :---: | :---: | :---: | :---: |
|  | move | do |
|  | prove | into |
|  | tomb | onto |
|  | whom | to |
|  | whose | who |


| ui 'moon' | bruise <br> cruise <br> fruit <br> juice <br> lawsuit <br> pursuit | recruit sluice suit suitor sunsuit |
| :---: | :---: | :---: |



| oe |  |  |  |  |
| :--- | :--- | :--- | :--- | :---: |
| ${ }^{\prime}{ }_{\mathrm{m} \mathrm{OO}_{\mathrm{n}}{ }^{\prime}}$ |  |  | canoe <br> shoe |  |
|  |  |  |  |  |

Unusual/unique spellings: lieu manoeuvre through.

## schwa

| a | a | alarm | climate | magnate | prelate | salad | area | flora |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| schwa | about | alike | curate | merchant | primate | theatre | aria | lava |
| afar | Alaska | currant | Paraguay | private | toucan | Coca-Cola | raffia |  |
|  | afraid | annoy | frigate | parallel | rearrange | vagrant | coma | replica |
|  | agree | attack | Germany | paramount | reptilian | valance | Cuba | Tonga |
|  | ajar | avoid | important | pirate | rotary |  | data | yoga |


| er |  | Albert | expert | Rupert | adder | fever |
| :--- | :---: | :---: | :---: | :--- | :---: | :---: |
| schwa | cavern | govern | Severn | after | giver |  |
|  |  | desert | modern | tavern | anger | joker |
|  | diners | others | towers | baker | meter |  |
|  | dinners | papers | tuners | carer | never |  |
|  | divers | pliers | ulcers | Dover | Roger |  |


| e |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| schwa |


| $\boldsymbol{o}$ |  | Aaron | bison | demon | piston |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| schwa | apron | bottom | Devon | pylon |  |
| arson | carton | heron | random |  |  |
|  | bacon | collude | lemon | Simon |  |
|  |  | baron | custom | mutton | tenon |
| baton | cotton | nylon | wagon |  |  |


| $\mathbf{u}$ |  |  |  |  |  |
| :--- | :--- | :--- | :---: | :---: | :---: |
| schwa |  | abacus discus helium mogul <br> cactus exodus hummus museum <br> census foetus Julius nimbus |  |  |  |
|  |  | consul | fungus | litmus | onus |$|$


| ou |  | anxious | furious | obvious |  |
| :--- | :--- | :---: | :---: | :---: | :--- |
| schwa |  |  |  |  |  |


| ar |  |  | altar | lunar |
| :--- | :--- | :--- | :---: | :---: |
| schwa |  |  |  |  |


| or <br> schwa |  | comfort | actor | motor |
| :--- | :--- | :--- | :--- | :---: |
|  |  |  | arbor | prior |
|  |  |  | author | razor |
|  |  |  | doctor | sailor |
|  |  | error | tenor |  |
|  |  |  | major | tractor |


| our <br> schwa |  |  | candour | harbour |
| :--- | :--- | :--- | :--- | :---: |
| clamour | honour |  |  |  |
|  |  |  | colour | odour |
|  |  |  | favour | parlour |
|  |  | fervour | tumour |  |
| glamour | vapour |  |  |  |


| $\mathbf{r}$ | Some authorities include a phoneme 'eer' amongst English | cheer | near |
| :--- | :---: | :---: | :---: |
| clear | peer |  |  |
| schwa | Speech sounds. This 'sound' comprises an 'ee' running into a | deer | smear |
|  | schwa. We think that both sounds can easily be heard and | fear | sneer |
|  | therefore treat them as two distinct sounds. | gear | veer |
|  |  | hear | year |


| re |  |  | cadre | kilometre |
| :--- | :--- | :--- | :--- | :---: |
| schwa |  |  |  |  | calibre | litre |
| :---: |
|  |


| ure |  |  | conjure | lecture |
| :--- | :--- | :--- | :--- | :--- |
| schwa |  |  |  |  | A


| ur <br> schwa | jodhpurs | Arthur femur kronur lemur murmur sambur | siddur Wilbur |
| :---: | :---: | :---: | :---: |


| ai | captain fountain <br> certain mountain <br> curtain |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |


| yr | martyr <br> schwa |  |  |  |  |  | Merthyr <br> zephyr |
| :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |

Unusual/unique spellings: Michael borough / thorough

## List of all spellings in alphabetical order

| Page | Spelling | Sound | Page | Spelling | Sound | Page | Spelling | Sound |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 94 | a | 'a' | 100 | ch | 'sh' | 106 | f | 'f' |
|  | a | 'ae' |  | che | 'sh' |  | f | 'v' |
|  | a | 'ar' |  | ci | 'sh' |  | ff | 'f' |
|  | a | 'e' |  | ck | 'k' |  | ffe | 'f' |
|  | a | 'o' |  | cq | 'k' |  | g | 'g' |
|  | a | 'or' |  | d | 'd' |  | g | 'j' |
|  | a | schwa |  | dd | 'd' |  | ge | 'j' |
| 95 | a-e | 'ae' | 101 | dge | 'j' | 107 | gg | 'g' |
|  | aer | 'air' |  | dh | 'd' |  | gg | 'j' |
|  | ae | 'ee' |  | dj | 'j' |  | gh | 'f' |
|  | ai | 'ae' |  | e | 'e' |  | gh | 'g' |
|  | ai | 'ie' |  | e | 'ee' |  | gn | 'n' |
|  | ai | schwa |  | e | schwa |  | gu | 'g' |
|  | air | 'air' |  | ea | 'ae' |  | gue | 'g' |
| 96 | al | 'I' | 102 | ea | 'e' | 108 | h | 'h' |
|  | al | 'ar' |  | ea | 'ee' |  | $i$ | 'i' |
|  | al | 'or' |  | ear | 'er' |  | $i$ | 'ee' |
|  | ar | 'ar' |  | ear | 'ar' |  | $i$ | 'ie' |
|  | ar | 'or' |  | ear | 'air' |  | i-e | 'ie' |
|  | ar | schwa |  | ed | 'd' |  | ie | 'ee' |
|  | are | 'air' |  | ed | 't' |  | ie | 'ie' |
| 97 | au | 'ar' | 103 | e-e | 'ee' | 109 | igh | 'ie' |
|  | au | '0' |  | ee | 'ee' |  | il | 'I' |
|  | au | 'oe' |  | ei | 'ae' |  | ir | 'er' |
|  | au | 'or' |  | ei | 'e' |  | j | 'j' |
|  | au | 'ow' |  | ei | 'ee' |  | k | 'k' |
|  | augh | 'or' |  | ei | 'ie' |  | kh | 'k' |
|  | aur | 'or' |  | eigh | 'ae' |  | kk | 'k' |
| 98 | aw | 'or' | 104 | el | 'I' | 110 | kn | ' ${ }^{\text {' }}$ |
|  | awe | 'or' |  | eo | 'e' |  | 1 | 'I' |
|  | ay | 'ae' |  | er | 'ar' |  | le | 'I' |
|  | ay | 'ie' |  | er | 'er' |  | II | 'I' |
|  | b | 'b' |  | er | schwa |  | Ile | 'I' |
|  | bb | 'b' |  | ere | 'air' |  | m | 'm' |
|  | bt | 't' |  | et | 'ae' |  | mb | 'm' |
| 99 | c | 'k' | 105 | eu | 'ue' | 111 | me | 'm' |
|  | c | 's' |  | eu | 'mOOn' |  | mm | 'm' |
|  | cc | 'k' |  | ew | 'ue' |  | mme | 'm' |
|  | cc | 's' |  | ew | 'm00n' |  | mn | 'm' |
|  | ce | 's' |  | ey | 'ae' |  | n | 'n' |
|  | ch | 'ch' |  | ey | 'ee' |  | n | 'ng' |
|  | ch | 'k' |  | eye | 'ie' |  | ne | 'n' |



| a | acid | alpha | bag | Dan | nanny | trap |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 'a' | action | amber | bap | fat | pack | tag |
| actor | ambush | camp | gas | ran | tan |  |  |
| add | and | can | hat | reaction | van |  |  |
| Adam | apple | cat | jam | sad | vat |  |  |
| Africa | at | damp | lamp | sat | yap |  |  |


| a | acorn | aphid | baby | favour | radar | table |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| 'ae' | acre | apricot | chamber | flavour | radio | Tamar |
| Aden | April | change | gravy | sacred | taxation |  |
| agent | apron | crazy | haste | sabre | vague |  |
|  | alien | Asia | David | lazy | sacred | vapour |
| angel | atrium | famous | paper | stable | volcano |  |




| a | Note that the single- <br> letter spelling < a > | swab | quad | quarry | want |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| representing 'o' is | swamp | quaff | twaddle | was |  |
| rellowing the sound | swan | quality | wad | wash |  |
| 'w', not just the | swap | quandary | waft | wasp |  |
| single-letter spelling | swastika | quantify | waltz | watch |  |
| $<\mathbf{w}>$ ! | Swatch | quantum | wan | what |  |



| a | a | alarm | climate | magnate | prelate | salad | area | flora |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | about | alike | curate | merchant | primate | theatre | aria | lava |
|  | Alaska | currant | Paraguay | private | toucan | Coca-Cola | raffia |  |
| afraid | annoy | frigate | parallel | rearrange | vagrant | coma | replica |  |
| agree | attack | Germany | paramount | reptilian | valance | Cuba | Tonga |  |
| ajar | avoid | important | pirate | rotary |  | data | yoga |  |


| a-e | age | arcade | decade | haze | rebate |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 'ae' | ale | became | fame | invade | same |
| ape | ate | behave | gale | lemonade | stale |
|  |  | cape | game | male | tape |
|  | create | gate | name | vale |  |
|  |  | date | hate | pane | whale |


| aer | aerial aerometer <br> aerobatic aeronaut <br> aerobic aeroplane <br> aerodrome  |  |  |
| :---: | :---: | :---: | :---: |
| aerofoil <br> aerology |  |  |  |


| ae | Aeolian <br> aeon <br> Aesop | Achaeans <br> chamaeleon <br> aesthesia <br> aesthetic | ischaemia <br> orthopaedic | larvae |
| :---: | :---: | :---: | :---: | :--- |
| haematite | paean |  |  |  |
| haematology | paediatrics |  |  |  |
| haemaphilia |  |  |  |  |
| haemostat |  |  |  |  |$\quad$|  |
| :--- |


| ai | aid | bait | faint | mail | Spain |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 'ae' | ailment | baize | gain | pail | stain |
| aims | aitch | brain | grain | pain | swain |



| ai | captain fountain <br> certain mountain <br> curtain |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |


| air | air | airlock | bairn | affair | funfair |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 'air' | aircraft | airmail | cairn | Blair | impair |
| aircrew | airman | fairy | chair | midair |  |
| airframe | airspace | hairy | corsair | mohair |  |
|  | airhead | airstrip | prairie | despair | repair |
|  | airless | airsick | stairway | flair | stair |


| al |  |  |  | basal |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | medal |  |
|  |  |  |  | crystal |
|  |  |  | metal |  |
|  |  |  | decal | nasal |
|  |  |  | fatal | pedal |
|  |  |  | final | plural |
|  |  |  | legal | regal |



| al <br> 'or' | chalk <br> stalk <br> talk <br> walk |  |
| :---: | :---: | :---: |


| ar | arc | armpit | alarm | charm | farm | sharp | boxcar | jar |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 'ar' |  | arcade | army | apart | chart | hard | smart | caviar |
| archer | armada | barb | Clark | lard | start | cigar | radar |  |
| arctic | artery | bark | dark | partner | tarnish | far | sitar |  |
| argue | arthritis | barn | darn | scar | tartan | guitar | sonar |  |
| aria | artist | card | dart | scarf | Tarzan | isobar | tar |  |



| ar | altar lunar <br> schwa  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | beggar | mortar |
|  |  |  | bursar | peculiar |
|  |  |  | collar | pedlar |
|  |  |  | dollar | sugar |
|  |  |  | hangar | vulgar |


| are <br> 'air' |  |  | aware <br> blare <br> Clare <br> dare <br> flare <br> glare | nightmare <br> scare <br> share <br> snare <br> spare <br> stare |
| :---: | :---: | :---: | :---: | :---: |


| au | aunt <br> aunty <br> 'ar' | draught <br> laugh <br> laughter | In a few accents <br> some, or all, of <br> these words on the <br> left will be 'a' rather <br> than 'ar' |
| :--- | :--- | :--- | :--- |


| au | au (revoir) <br> Australia <br> Austria <br> Austronesia | because <br> laurel <br> sausage |  |
| :--- | :--- | :--- | :--- |



| au | auburn August <br> Auckland auk | baud <br> cause | fraud <br> gaudy | laud <br> 'or' <br> auction | austere | Claud |
| :--- | :---: | :---: | :---: | :---: | :---: | :--- |
| audible | Gauthor | Paul |  |  |  |  |
| audit | auto | daub | gauntlet | Saul |  |  |
| daunt | gauze | taunt |  |  |  |  |
| auger | autumn | faun | haul |  |  |  |


| au |  | gauss <br> pilau <br> tau <br> umlaut |  |
| :--- | :--- | :--- | :--- |
|  |  |  |  |


| augh | aught | caught <br> daughter <br> distraught <br> fraught <br> haughty <br> naught | naughty <br> slaughter <br> taught <br> Vaughan |
| ---: | :--- | :---: | :--- |
|  |  |  |  |


| aur |  |  | dinosaur |
| :---: | :---: | :---: | :---: |
| 'or' |  | gorgosaur |  |
|  |  |  | pterosaur |
|  |  |  | stegosaur |
|  |  |  | tyrannosaur |


| aw | awful | bawdry | drawn | pawl | tawny | bylaw | jigsaw |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 'or' | awfully | awkward | bawl | gawky | pawn | tawse | caw |
|  | brawl | hawk | prawn | trawler | claw | outlaw |  |
|  | awn | brawny | hawse | shawl | yawl | draw | paw |
|  | awn | dawn | lawn | sawn | yawn | flaw | raw |
|  | awning | drawer | pawky | tawdry |  | gnaw | thaw |


| awe | awe <br> awesome <br> awestruck |  |  |
| ---: | :--- | :--- | :--- |
|  |  |  |  |
|  |  |  |  |


| ay | Ayckbourn | cayenne | frayed | playful | away | pay |
| ---: | :--- | :---: | :---: | :---: | :---: | :---: |
| 'ae' | Aylesbury | Cayman | layer | playoff | bay | say |
|  |  | Clayton | mayonaisse | playpen | bray | slay |
|  |  | crayon | okayed | strayed | clay | stay |
|  |  | drayman | playact |  | day | sway |
|  |  | flayed | player |  | gray | tray |


| ay | ayah <br> ayatollah <br> Aymara | Maya <br> Mayakovsky | Paraguay <br> Uraguay |
| :--- | :--- | :---: | :--- |
|  |  |  |  |


| $\mathbf{b}$ | bad | bin | album | cobra | fabre | Mabel | Bob | grab |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 'b' |  | band | blend | amber | cube | fibre | Nobel | cab |
| bang | bottle | amble | debit | habit | noble | cub | rob |  |
| bean | bread | bible | Debra | kebab | orbit | club | slab |  |
| beaver | bump | cabin | debug | libel | robot | drab | stub |  |
| bend | bus | cable | elbow | Libra | table | fib | tube |  |



| bt |  | debtor <br> doubter <br> doubtful | subtle <br> subtlety | debt <br> doubtless <br> indebted <br> redoubtable |
| :--- | :--- | :---: | :---: | :---: |
|  |  | misdoubt |  |  |


| $\begin{array}{ll}\text { c } & \\ & \\ & \\ & \\ \end{array}$ | camera | cold | acne | incline | pancake | scatter | Arabic |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | cap | comb | acorn | include | rancour | scold | Baltic | panic |
|  | carrot | crab | acre | ocarina | rococo | scorch | clinic | phobic |
|  | class | crocus | across | octet | ruction | scorn | fabric | picnic |
|  | claw | cuddle | action | October | scampi | scrub | frolic | talc |
|  | cliff | cup | exclaim | octopus | scarlet | scuttle | hectic | tragic |





| ce |  |  | avarice | mince |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  | choice | piece |
|  |  |  | dace | rice |
|  |  | fleece | sluice |  |
|  |  | Greece | spruce |  |
|  |  | hence | trounce |  |


| ch | chain | choice | achieve | preacher | arch | inch |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| 'ch' | champ | choke | anchovy | rancher | beach | March |
| chance | chop | archway | recharge | bench | ouch |  |
| child | chump | benchmark | teacher | birch | stench |  |
|  | chimney | church | discharge | treachery | church | touch |
|  | chim | churn | launcher | wheelchair | each | wrench |


| ch |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ch | chaos chiropractor charisma chlorine | anchor | inchoate | psychology scholar | Czech epoch |
|  | chasm choir chelate chord | architect archive | Michael ochre | school schooner | eunuch <br> Munich |
|  | chemist Christmas | bronchitis | orchestra | trachea | stomach |

$\left.\begin{array}{|l|cc|cc|l|}\hline \text { ch } & \begin{array}{cc}\text { chagrin } \\ \text { chalet } & \text { chemise } \\ \text { chevron }\end{array} & \begin{array}{c}\text { cachet } \\ \text { cachou }\end{array} & \begin{array}{c}\text { machete } \\ \text { chamois }\end{array} & \text { chic } & \text { fiches }\end{array} \begin{array}{l}\text { Michele }\end{array}\right]$

| che |  |  | cache | louche |
| :---: | :---: | :---: | :---: | :---: |
| 'sh' |  | cloche | niche |  |
|  |  |  | creche | panache |
|  |  |  | fleche | quiche |
|  |  |  | fiche | Roche |
|  |  |  | gauche | troche |

$\left.\begin{array}{|l|l|ccc||}\hline \text { ci } & & \text { antisocial } & \text { especial } & \text { racial } \\ \text { 'sh' } & & \text { artificial } & \text { financial } & \text { social } \\ \text { atrocious } & \text { judicial } & \text { special } \\ \text { commercial } & \text { malicious } & \text { specious } \\ & & \text { crucial } & \begin{array}{c}\text { official } \\ \text { celicious }\end{array} & \begin{array}{c}\text { vicious } \\ \text { precious }\end{array} \\ & & \text { vivacious }\end{array}\right]$



| d |  | dab | dip | Adam | cedar | laden | padlock | and |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| daily | do | admit | codeine | madly | panda | bend | made |  |
|  | 'd' |  |  |  |  |  |  |  |
| damp | dog | audio | credit | nadir | render | bread | need |  |
| deck | drift | badly | eldest | nodule | rounders | clod | quad |  |
|  | desk | dug | blindly | golden | odour | sandbag | find | ride |
|  | dig | dump | Bradford | India | odyssey | video | good | vend |






| e | ebony  <br> eddy element <br> elephant  | amend | get | mend | tether |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :--- |
| bent | help | offend | unless |  |  |  |  |
| edge | emerald | crest | ibex | pet | very |  |  |
| edit | end | den | jet | quest | wet |  |  |
| egg | ever | eventual | kelp | rend | yell |  |  |
|  | elder | exit | felt | letter | sever | zenith |  |


| ee' | Eden <br> edict <br> Egypt <br> ego <br> egret <br> eject | e-mail <br> emu <br> enate <br> ephor <br> equal | anuresis <br> arena <br> beta <br> debrief <br> Debunk <br> female | genial genome geodesic hero hexahedron ketone | $\begin{gathered} \hline \text { legal } \\ \text { lemur } \\ \text { leonine } \\ \text { lethal } \\ \text { media } \\ \text { mediate } \\ \hline \end{gathered}$ | medium Mekong neon media query reflex | be he me she we |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |


| e |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| schwa |$\quad$| anklet | cinema | myelin | secret | genre |
| :---: | :---: | :---: | :---: | :---: |
| annulet | dribblet | nicety | solenoid | the |
| assegai | Helen | nutlet | talent |  |
| ballerina | legend | onerous |  |  |
| caret | lysogen | open |  |  |
| category | marvellous | palette |  |  |


| ea <br> 'ae' |  | break <br> great <br> steak |  |
| :--- | :--- | :--- | :--- |
|  |  |  |  |



| ea | each | easily | beak | heal | lean | seamer | cowpea |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| eager | sea |  |  |  |  |  |  |
| 'ee' | east | beam | heap | meal | steal | flea | tea |
| eagle | Easter | bean | heat | neatly | team | guinea |  |
| Ealing | easy | beaten | Jean | peace | treaty | lea |  |
|  | ease | eat | clean | jeans | peacock | veal | pea |
| easel | eaves | feat | leaf | seal | weak | plea |  |


| ear | earl earthworks <br> early earthworm <br> earn dearth yearn <br> heard unearth  <br> earnest hearse |  |
| :--- | :---: | :---: | :---: | :---: |
| earnings | learn |  |
| earth | pearl |  |


| ear | heart <br> hearth <br> hearty |  |  |  |  |  |
| ---: | :--- | :--- | :--- | :---: | :---: | :---: |
|  |  |  |  |  |  |  |


| ear | Earhart (Amelia) |  | bear bugbear forbear footwear forswear menswear | overbear pear swear tear wear |
| :---: | :---: | :---: | :---: | :---: |


| ed |  | In speech it is normal for sounds to vary slightly according to the sounds that precede and/or follow them. Although we can usually write | avowed moaned <br> breathed played <br> calmed ruined <br> closed splattered <br> groaned trained <br> hammered veered |
| :---: | :---: | :---: | :---: |
| ed |  | the sound we make is either 'd' or 't' depending on the sound that comes before it. (Our mouths get 'forced' into producing one or the other.) | bumped leaped <br> crunched marked <br> finished pushed <br> flinched talked <br> jumped washed <br> knocked watched |



| ee | eel | beef | deem | heed | reef | agree | rupee |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 'ee' | eerie | been | feed | jeep | seen | coffee | scree |
|  |  | beep | fleet | keel | reel | fee | see |
|  |  | beer | feel | leek | seed | glee | three |
|  |  | beet | geek | meet | seem | knee | tree |
|  |  | deep | geese | need | week | payee | trustee |


| ei |  | abseil | heinous | veil |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 'ae' |  | beige | Leila | vein |  |
|  |  | Beirut | reign | unveil |  |
|  | deign | rein |  |  |  |
|  | feign | Seine |  |  |  |
|  | feint | skein |  |  |  |



| ei | either(I say,you say?) | ceiling <br> codeine <br> 'ee' | Neil <br> receipt | Sheila |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |
|  | deceit | receive |  |  |  |
| geisha | Reims |  |  |  |  |
|  | Keith | seize |  |  |  |
|  | Madeira | seizure |  |  |  |


| ei 'ie' | Eiffel (Tower) <br> Eiger (Mountain) Einstein (Albert) Eisenhower (Dwight) eisteddford (Wales) either (I say,you say?) | feisty | Pleiades |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Heidi | Reich |  |
|  |  | heist | seismic |  |
|  |  | Leibniz <br> leitmotif <br> Oneida | seismology |  |


| eigh | eight | freight |  | inveigh <br> 'ae' |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  | The four-letter spelling < eigh > <br> can often represent 'ee' at the end <br> of place names and surnames. <br> (Also 'ie' as in height.) | neigh <br> reweigh <br> sleigh <br> weigh |  |  |


| el 'I' |  |  | barbel <br> cancel <br> diesel <br> duffel <br> funnel <br> gospel | gravel <br> hostel <br> kernel <br> marvel <br> morsel <br> nickel |
| :---: | :---: | :---: | :---: | :---: |


| eo |  | jeopardy <br> leopard |  |
| :--- | :--- | :--- | :--- |
| Ae |  |  |  |


| er |  | clerk |  |
| :--- | :--- | :--- | :--- |
| 'ar' |  |  |  |
|  |  |  |  |


| er | erg | Ernest | adverb | berth | germ | Serbia | aver |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ergo | erst | adverse | Bertha | herb | sermon | deter |  |
| ergot |  | advert | Bertie | merger | serve | her |  |
| erk |  | assert | cervix | nerve | term | refer |  |
| ermine |  | astern | fern | permit | verbose |  |  |
|  | erne |  | Berlin | gerbil | person | vermin |  |


| er |  | Albert | expert | Rupert | adder | fever |
| :--- | :---: | :---: | :---: | :--- | :---: | :---: |
| schwa | cavern | govern | Severn | after | giver |  |
|  |  | desert | modern | tavern | anger | joker |
|  | diners | others | towers | baker | meter |  |
|  | dinners | papers | tuners | carer | never |  |
|  | divers | pliers | ulcers | Dover | Roger |  |


| ere | ere <br> erelong <br> erenow <br> erewhile | thereabouts <br> thereafter <br> therefore <br> therein <br> thereof <br> thereupon | whereabouts <br> whereas <br> wherefore <br> whereupon <br> wherewith | elsewhere <br> somewhere <br> there |
| :---: | :---: | :---: | :---: | :---: |
| where |  |  |  |  |


| et |  |  | ballet | croquet |
| :--- | :--- | :--- | :--- | :--- |
| 'ae' |  |  |  |  |
|  |  |  | bouquet | gourmet |
| buffet | Monet |  |  |  |
|  |  |  | cabaret | piquet |
|  |  |  | cachet | sachet |
|  |  |  |  | chalet |
| sorbet |  |  |  |  |


| eu | eucalyptous | eunuch | aleurone | neurone |  |
| :--- | :---: | :---: | :---: | :---: | :--- |
| 'ue' | Eucharist | euphemize | Beulah | neuter |  |
| euchre | euphonium | feudal | neutral |  |  |
| Euclid | euphoria | neural | neutron |  |  |
| eugenic | Euphrates |  |  |  |  |
| eulogy | eureka | neuroma <br> neuron | pneumatic <br> pneumonia |  |  |
|  |  |  |  |  |  |


| eu | pseudo <br> Rheubin <br> rheum <br> rheumatism <br> sleuth |  |
| :--- | :--- | :--- | :--- |

$\left.\begin{array}{|l|l|lc|l|}\hline \text { ew } & \text { ewer } & \text { dewy } & \text { newly } \\ \text { 'ue' } & \text { hewn } & \text { news } \\ \text { fewer } & \text { newt }\end{array}\right]$.



| ey <br> 'ee' |  |  | Audrey bimey bogey Dewey doyley galley | kidney <br> limey <br> money monkey <br> Surrey <br> Turkey |
| :---: | :---: | :---: | :---: | :---: |



| f | fabric | flab | afoot | drift | leafy | raft | brief | if |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | father | four | after | elfin | left | refer | clef | knife |
|  | fax | fox | awful | fifty | lift | sift | deaf | leaf |
| feel | friend | befog | gift | lofty | sofa | elf | oaf |  |
|  | felon | full | café | hefty | mafia | soft | golf | reef |
|  | fibre | fuse | comfy | infer | often | unfed | half | self |


| f |  | This is the only entry where the spelling <br> occurs in just a single word. However, as <br> the word of is one of the commonest <br> words in English, it would be rather odd to <br> view it as an unusual spelling! | of |
| :--- | :--- | :--- | :--- |
|  |  |  |  |



| ffe |  |  | gaffe <br> giraffe |
| :---: | :--- | :--- | :--- |
|  |  |  |  |
|  |  |  |  |


| 'g' | gag gale | glad | again | Bengal | dangle degree dragon | ogre | bag | fog |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | glory | ago agree | bigamy biography |  | polygon | beg | gig |
|  | garden gear | goose |  |  |  | regal | big | nag |
|  |  | grab | argue | bugle | figure | segment | bog | $\log$ |
|  | gilt | grape | August | bungle | forget | tiger | bug | mug |
|  | give | gum | began | cigar | igloo | ugly | drug | sag |


| g | gem <br> Gemini gender general genetic | germinate gesture giant ginger | agency agenda | egest Egypt | magistrate regent | Roger tagetes | $\begin{aligned} & \text { age } \\ & \text { cage } \\ & \text { huge } \end{aligned}$ | stage wage |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 'j' |  |  | gile | gender | regiment | vegetable |  |  |
|  |  |  | oma | engine | gio | stigial | page |  |
|  |  | gist | digest digital | logical magic | register rigidity | vigilant wages | rage sage |  |


| ge | George <br> Geoffrey <br> geography | burgeon <br> dungeon <br> pigeon | barge <br> beige <br> surgeon <br> sturgeon |
| :--- | :--- | :--- | :--- |
|  |  | large <br> urge |  |



| gg |  | exaggerate <br> suggest |  |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
|  |  |  |  |







| h <br> 'h' | hair <br> half <br> has <br> hat health hem | herb hip hiss honey hoop hydrogen | adhere antihero anyhow behaviour behind egghead | enhance exhale inhabit inhaler inherit mayhem | mishear mishap mishit peahen rehab sunhat |
| :---: | :---: | :---: | :---: | :---: | :---: |


| ij |  | idiocy | inhibit | bit | grin | pin | sit |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
|  | if | into | din | hip | pit | tip |  |
|  | ignite | Islam | engine | lift | quit | trip |  |
| indicit | irritate | fifty | lily | ripple | video |  |  |
| imitate | it | fist | little | risk | wit |  |  |
| index | itch | gin | nifty | sift | zip |  |  |


| 'ee' | $\begin{aligned} & \text { Ian } \\ & \text { Ionesco (Eugene) } \end{aligned}$ | adios alias | Anita arias | casino cerise | idiom iliac | chilli corgi | Maori mini |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | alien | avian | Denise |  | Gobi | sushi |
|  |  | amigo | axiom | Elliot | opium | khaki | Toni |
|  |  | amino | bikini | icier | easier | kiwi | Vicki |


| i |  | I | iodine | align | China | friar | quiet | alibi |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | icy | ion | bible | cider | giant | rhino | alkali | Gemini |
|  | 'ie' | Idaho | lowa | briar | climb | grind | slimy | alumni |
| idea | irate | blind | Diana | Orion | spicy | cacti | loci |  |
|  | identity | ire | bison | drier | phial | trial | cumuli | nuclei |
| idol | irony | child | final | prior | wild | foci | rabbi |  |

\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline \multirow[t]{6}{*}{i-e

'ie'} \& \multirow[t]{6}{*}{ice iceberg icebox icecap Iceland} \& bide \& dime \& gibe \& life \& \& \multirow[t]{6}{*}{} <br>
\hline \& \& bike \& dine \& hide \& like \& \& <br>
\hline \& \& bile \& dive \& hike \& lime \& \& <br>
\hline \& \& bite \& file \& hive \& mice \& \& <br>
\hline \& \& cite \& fire \& jive \& Mike \& \& <br>
\hline \& \& dice \& five \& knife \& nice \& \& <br>
\hline
\end{tabular}





| il |  |  |  | basil |
| :---: | :---: | :---: | :---: | :---: |
|  |  | pencil |  |  |
|  |  |  |  |  |
|  |  |  | Cecil | pupil |
|  |  |  |  | council |
| weevil |  |  |  |  |
|  |  |  | fossil | stencil |
|  |  |  | gerbil | tendril |
|  |  |  | nostril | utensil |


| ir | irk | birch | dirty | girth | smirk | astir |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| 'er' |  | Irving | Irwen | bird | firs | kirk |
|  |  | smirth | bestir |  |  |  |
|  |  | birth | first | mirth | third | fir |
|  | chirp | flirt | shirk | thirst | sir |  |
|  |  | dirk | gird | shirt | Virgo | smir |
|  |  | dirge | girl | skirt | whirl | stir |


| 'j' | jab Janet jade jam Japan jelly | jet <br> joke <br> jockeyJohnjudgejust | ajar banjo deejay enjoy hijack logjam | major object project rajah ramjet reject | Although we have not included it as a regular English spelling, the twoletter spelling < jj > does represent the sound 'j' in the words hajj, hajji and Hajjaj. | $\begin{gathered} \text { Hajjaj } \\ \text { Raj } \\ \text { taj } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |


| 'k' | Kansas karate Kate | kind | ankle asked | beaker biker | hiker inkling | parka poker | baulk |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | kink |  |  |  |  | blank |  |
|  |  | kiosk | awaken | bulky | jerkin | rankle | brook | peke |
|  | keg | kit | baker | catkin | joker | token | cake | pink |
|  | kettle | krill | banker | donkey | market | working | chalk | plank |
|  | kick | kyle | basket | fakir | monkey | yokel | Derek | sink |



| kk |  | chukka <br> chukker <br> dekko <br> markka <br> ' $\mathrm{k} '$ |  |
| :--- | :--- | :--- | :--- |
| pukka <br> trekking |  |  |  |


| kn | knack <br> knead | knit <br> knob | bowknot <br> doorknob <br> kneecap <br> knocker | kneel <br> foreknow |
| :--- | :---: | :---: | :---: | :--- |
| knot <br> knife <br> knight | know <br> knuckle | misknow <br> slipknot <br> topknot |  |  |


| I |  | lad | Lily | alert | colic | false | glue | ale |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | last | lie | alter | Colin | films | gulp | boil |
|  | I' | pole |  |  |  |  |  |  |
| late | log | atlas | delay | fold | Helen | cool | reel |  |
|  |  | leg | loop | below | delta | glass | igloo | fool |
| let | tail |  |  |  |  |  |  |  |
|  | let | Luke | belt | eleven | glimpse | Islam | goal | whale |
|  | letter | lump | bold | elm | gold | melon | nail | wheel |


| le |  |  |  | apple |
| :---: | :---: | :---: | :---: | :---: |
| fiddle |  |  |  |  |
|  |  |  |  |  |
|  |  |  | beetle | giggle |
|  |  |  | bible | jungle |
|  |  |  | bottle | nettle |
|  |  |  | circle | table |
|  |  |  | double | uncle |


| II $\begin{aligned} & \\ & \\ & \\ & \\ & \text { I' }\end{aligned}$ | Ilama Ilano Lloyd | ballet bellow Billy cellar cello dollar | $\begin{gathered} \hline \text { dollop } \\ \text { follow } \\ \text { frilly } \\ \text { grilled } \\ \text { jelly } \\ \text { lollipop } \\ \hline \end{gathered}$ | miller <br> pallet <br> pillar <br> pillow <br> pollen <br> shallow | swallow trellis valley villa wallet yellow | Bilbullcelldollfalgril | $\begin{aligned} & \text { Jill } \\ & \text { pull } \\ & \text { sell } \\ & \text { still } \\ & \text { tall } \\ & \text { yell } \\ & \hline \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |


| Ile |  |  | Annabelle | gazelle |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  | bagatelle | Lucille |
|  |  |  | Bastille | Moselle |
|  |  |  | Braille | nacelle |
|  |  |  | chenille | Nashville |
|  |  | Estelle | pastille |  |


| m 'm' | mat | most | admire | bump | fumble | memb | Adam |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | melt | move | amaze | cement | hamper | moment | alarm | poem |
|  | middle | mud | amber | mic | human | nomad | brim | m |
|  | mink | muscle | ample | damp | humbug | Pamela | chum | seem |
|  | mist | must | animal | Emily | jumbo | remark | exam | swim |
|  | moor | my | bamboo | empty | lemon | simple | farm | ter |


| mb <br> 'm' | bombshell climber plumber thumbnail | aplomb benumb climb comb corymb crumb | entomb <br> lamb <br> limb <br> rhumb <br> thumb <br> womb |
| :---: | :---: | :---: | :---: |


| me |  |  | become | lissome |
| :---: | :---: | :---: | :---: | :---: |
| 'm' |  |  | centime | outcome |
| consume | some |  |  |  |
|  |  |  | fulsome | thyme |
|  |  |  | income | twosome |
|  |  |  | irksome | welcome |



| mme <br> 'm' |  | femme <br> gramme <br> kilogramme <br> oriflamme <br> programme |
| ---: | :--- | :--- | :--- |


| mn <br> 'm' |  |  | autumn hymn <br> column limn <br> condemn solemn <br> contemn  <br> damn  <br>   <br>   <br> dislimn  |
| :---: | :---: | :---: | :---: |


| n | name nap | nine |  | An | inch | onset | Alan fern |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | angle | encode | income | snails | barn | gain |
|  | need | none | animal | ending | India | sneeze | bean | iron |
|  | nest | north | anklet | energy | indigo | snare | chin | lawn |
|  | never | nudge | anorak | engine | infant | snug | corn | moan |
|  | nice | nugget | answer | enjoy | onion | uncle | Dawn | noun |


| $\mathbf{n}$ |  | anger | Frank | monkey | tank |  |
| :--- | :--- | :---: | :---: | :---: | :---: | :--- |
| 'ng' |  |  |  |  |  |  |
|  |  |  | angler | inky | pink | think |
|  |  | bank | jangle | rank | tingle |  |
|  |  | blanket | jingo | singlet | twinkle |  |
|  |  | bingo | junk | sunken | wink |  |
|  | drink | link | tangled | wrangle |  |  |


| ne |  |  | anyone famine <br> borne gamine <br> n'  <br>   <br>   <br>   <br> bygone gone <br> carmine imagine <br> Diane undone <br> engine Wayne |
| :---: | :---: | :---: | :---: | :---: |


| ng 'ng' | banging <br> clingy <br> gangs <br> gongs <br> kings <br> length | lungs <br> singer <br> singing <br> strength <br> strings <br> things | tongs twangs wringer | From French we also get the fourletter spelling of 'ng' as < ngue > In meringue and tongue | among <br> bung <br> bring <br> cling <br> driving <br> flung | giggling rushing sing strong wring walking |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |



| nne |  |  | Anne Leanne <br> cayenne Lynne <br>   <br>   <br>   <br> Dianne Roxanne  <br> doyenne Suzanne  <br> Jeanne tonne  <br> Joanne Yvonne  |
| :---: | :---: | :---: | :---: |





| o | once <br> one <br> oneness <br> oner <br> oneself <br> onetime | anyone <br> everyone <br> someone |  |
| :--- | :--- | :--- | :--- |




| oa | oaf | bloat | foal | Joan | road | cocoa |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 'oe' | oak | cloak | foam | load | roast | whoa |
| Oakland | coal | goal | loaf | soak |  |  |
| oast | coax | goat | loan | soap |  |  |
|  | oat | croak | groan | moan | toad |  |
| oath | float | hoax | moat | toast |  |  |


| oar | oar | board | boar |
| :---: | :---: | :---: | :--- |
| 'or' | coarse | hoar |  |
|  |  | cupboard | roar |
|  | hoard | soar |  |
|  |  | uproar |  |



| 'oe' |  |  | aloe <br> doe <br> floe <br> foe <br> hoe <br> Joe | oboe <br> pekoe <br> sloe <br> throe <br> tiptoe <br> toe |
| :---: | :---: | :---: | :---: | :---: |



| oi$\qquad$ | oik oily <br> oil oink <br> oilcan ointment <br> oiled  <br> oilskin  <br> oilstone  <br>   |  | anoint | cloister | groin | noise | hoi-poloi |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | appoint | coil | hoist | ovoid |  |
|  |  |  | avoid | coin | invoice | quoit |  |
|  |  |  | boil broil choice | cuboid doily foil | join loin loiter | spoil troika void |  |


| ol 'oe' | folk yolk |  |
| :---: | :---: | :---: |


| 00 <br> 'u' | $\begin{aligned} & \text { blood } \\ & \text { flood } \end{aligned}$ |  |
| :---: | :---: | :---: |



| Oo | oompah | aloof | hoof | moon | smooth | bamboo | shampoo |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ${ }^{\prime}{ }_{\mathrm{m}} \mathrm{OO}_{\mathrm{n}}{ }^{\prime}$ |  |  |  |  |  |  |  |
| oops | balloon | hooligan | noon | snooker | boo | skiddoo |  |
| ooze |  | bloom | hoopla | pool | soon | cuckoo | taboo |
|  |  | cool | loom | proof | stool | kazoo | tattoo |
|  | food | loop | roof | whooper | igloo | too |  |
|  |  | goose | mood | root | zoom | kangaroo | zoo |


| oor  door <br> floor <br> 'or' <br>   poor (accent) |  |  |
| ---: | :--- | :--- | :--- |
|  |  |  |



| or | or <br> orb | Orlando <br> ornate | acorn <br> adorn | dormitory <br> dormouse | lord <br> morning | sort <br> sport | decor |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| orbit | ornament | born | force | north | storm |  |  |
| organ | orphan | chorus | Ford | port | torn |  |  |
| orgone | Orpheus | corm | horn | short | worn |  |  |
| orient | orthotic | dormant | horse | shorn | York |  |  |


| or <br> schwa |  |  | actor | motor |
| :--- | :--- | :--- | :--- | :---: |
|  |  |  | arbor | prior |
|  |  |  | author | razor |
|  |  |  | doctor | sailor |
|  |  |  | error | tenor |
|  |  |  | major | tractor |


| ore |  |  | ashore | ignore |
| :---: | :---: | :---: | :---: | :---: |
| 'or' |  | before | more |  |
|  |  |  | bedsore | score |
|  |  | core | sore |  |
|  |  | encore | spore |  |
|  |  |  | explore | restore |


| ou | boulder <br> mould <br> mouldy <br> moult <br> poult <br> shoulder |  |  |  |  | soul |  |
| :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: |


| ou | ouch <br> ounce | bouncy <br> 'ow' <br> our | gouge <br> couch <br> oust | mound | mouth | rouse |
| :--- | :---: | :---: | :---: | :---: | :---: | :--- |
| cound |  |  |  |  |  |  |
| out | county | house | noun | south |  |  |
| outlaw | doubt | joust | pouch | stout |  |  |
|  | douse | lousy | pound | tout |  |  |
| found | mount | round | voucher |  |  |  |


| ou |  | countryrough <br> couple <br> touch <br> cousin <br> cough <br> double trouble <br> Douglas young <br> enough youngest |  |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |




| ough <br> 'oe' |  |  | dough <br> though |
| ---: | :--- | :--- | :--- |
|  |  |  |  |


| ough | ought | bought wrought <br> brought <br> fought <br> nought <br> sought <br> thought |  |
| ---: | :--- | :--- | :--- |


| ough <br> 'ow' | drought | bough <br> Slough |
| ---: | :--- | :--- | :--- |
|  |  |  |


| oul <br> 'bOO $'$ | could <br> should <br> would |  |
| :--- | :--- | :--- | :--- |
|  |  |  |


| our <br> 'or' | bourne <br> course <br> court <br> fourth <br> mourne <br> Osbourne | four <br> pour |
| :--- | :--- | :--- | :--- |



| ow | own <br> owner | bowl slowly | aglow | oxbow |
| :---: | :---: | :---: | :---: | :---: |
|  | blown |  | below | pillow |
|  |  | glowing |  | borrow |
|  |  | show |  |  |
|  |  | grown | elbow | snow |
|  |  | known | glow | throw |
|  |  | rower | know | widow |


| ow | owl | blowsy | crowd | gown | shower | allow | how |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 'ow' | owlet | bowels | drown | jowl | towel | brow | now |
|  |  | brown | drowsy | power | town | chow | prow |
|  |  | browse | flower | prowl | trowel | cow | row |
|  |  | clown | fowl | renown | vowel | dhow | scow |
|  |  | cower | glower | scowl | yowl | endow | vow |


| oy | Oyl (Olive) | Boyd | Lloyd | ahoy | joy |
| :---: | :---: | :---: | :---: | :---: | :---: |
| oyster | boys | loyal | convoy | Roy |  |
|  |  | destroyer | loyalty |  | cowboy |
|  |  | enjoys | royal | decoy | toy |
|  |  | Floyd | soya | destroy | Troy |
|  | groyne |  | enjoy | viceroy |  |


| p | pack | piano | ample | dopey | lupin | repel | bump | parsnip |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | paste | plug | aspic | impel | moped | sepia | clip | quip |
|  | Peter | plot | capon | imply | opal | super | drop | reap |
| pen | plum | Capri | Japan | paper | topic | flip | stamp |  |
| plank | proud | Cupid | kapok | pupil | viper | gasp | trump |  |
| plot | pun | depot | lapel | repay | whisper | limp | zip |  |


| p | phalanx philosophy phantom phoneme pharmacy phone phenol photo phenomenon phrase Philip physical | aphid camphor | elephant gopher | Memphis nephew | caliph photograph glyph triumph |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | cypher | aphi | orphan | graph |
|  |  | Daphne | hyphen | prophet | kaph |
|  |  | Dauphin | Humphrey | Sophie | lymph |
|  |  | dolphin | morphine |  |  |


| pn | pneumatic <br> pneumatocele <br> pneumatology <br> pneumatosis <br> pneumoconiosis <br> pneumonia |  |  |
| :--- | :--- | :--- | :--- |



| ps | psalm <br> Psalter | psyche <br> psychic |  |  |
| :--- | :---: | :---: | :--- | :--- |
| pseud | psychology |  |  |  |
| 's' |  |  |  |  |
|  | pseudonym <br> psittacosis <br> psychiatry <br> psoriasis | pschometry <br> psyllium |  |  |
|  |  |  |  |  |


| pt | ptarmigan <br> pteridology <br> pterodactyl <br> pteropod <br> pterosaur <br> ptomaine |  |  |
| :--- | :--- | :--- | :--- |


| $\mathbf{q}$ |  | Quatar | question |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :--- |
| quaff | quick | banquet | equator | inquiry | squaw |  |  |
| bequeath | equinox | liquid | squeak | Compaq |  |  |  |
| Iraq |  |  |  |  |  |  |  |
| quality | quiet | burqa | equip | niqab | squeeze |  |  |
| quarrel | quite | eloquent | equity | sequel | squid |  |  |
| quarter | quiz | enquiry | equivalent | squalid | squint |  |  |
|  | queen | quote | equal | inquest | square | squirrel |  |



| que | queue |  | antique clique  <br> baroque mosque  <br> ' $\mathrm{k}^{\prime}$  <br>   <br>   <br> barque opaque  <br> Basque pique  <br> brusque unique  <br> cheque  |
| ---: | :--- | :--- | :--- |


| r |  | race | rink | agree | cherub | grid | metric |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :--- |
| radio | riot | Andrea | crab | hooray | outrun |  |  |
|  | rain | roast | anorak | degree | Iraq | petrol |  |
| rebel | Rosemary | April | drip | iris | pram |  |  |
| reflex | ruby | Boris | Eric | Madrid | sacred |  |  |
|  | Ricky | run | brim | free | matrix | tree |  |
|  |  |  |  |  |  |  |  |


| $\mathbf{r}$ |  | cheer | near |
| :--- | :---: | :---: | :---: |
| schwa | Some authorities include the sound 'eer' amongst English | clear | peer |
| phonemes. This sound comprises an 'ee' running into a schwa. | deer | smear |  |
|  | We think that both sounds can easily be heard in normal | fear | sneer |
|  | speech and therefore treat them as two distinct sounds. | gear | veer |
|  |  | hear | year |


| re schwa |  |  | $\qquad$ | kilometre <br> litre <br> ochre <br> sabre <br> sceptre <br> sepulchre |
| :---: | :---: | :---: | :---: | :---: |


| rh | rhapsody rhodium <br> rhesus rhombus <br> rhinitis rhubarb <br> rhino rhumba <br> rhizome rhyme <br> Rhodes rhythm | Durham | The three-letter spelling < rrh > also represents the sound ' $r$ ' in a number of medical nouns for rather unpleasant conditions such as diarrhoea and cirrhosis. |
| :---: | :---: | :---: | :---: |



| $\mathbf{s}$ |  | sack | sleep | absurd | cyst | fast | just | blocks |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 's' lumps |  |  |  |  |  |  |
|  |  | son | also | desk | foster | lost | claps | notes |
| scent | spot | basic | discuss | gospel | mascot | ducks | pips |  |
| set | step | best | dust | hostel | nest | fits | treats |  |
| shed | stuck | casino | east | insect | onset | gaps | takes |  |
| sip | Susan | cask | Easter | jester | risk | huts | votes |  |



| $\mathbf{s}$ | Sean <br> sugar <br> sure |  |  |
| :--- | :--- | :--- | :--- |
|  |  |  |  |


| $\mathbf{s}$ |  | measure |
| :--- | :--- | :--- | :--- |
| 'zh' | pleasure |  |
| treasure |  |  |
|  |  | unusual |
|  | usual |  |
|  | visual |  |


| sc | scene <br> scenery | scientist <br> scilla | descend <br> descender |  |
| :--- | :---: | :---: | :---: | :--- |
|  | 's' |  |  |  |
| scenic | Scilly Isles | fascinate |  |  |
| scent | scimitar | nascent |  |  |
| sciatica | scissors | rescind <br> science | tumescent |  |


| sce <br> 's' |  | coalesce <br> reminisce |  |
| ---: | :--- | :--- | :--- |
|  |  |  |  |


| sch | schmuck <br> schnappsschwa <br> Schwann | Escher <br> eschew <br> schnitzel <br> schnozzle |  |
| :---: | :---: | :---: | :--- |
| Schubert <br> Schumann |  | Kirsch <br> mensch |  |
|  |  |  |  |


| se |  |  | cease | horse |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  | chase | loose |
|  |  |  | copse | mouse |
|  |  |  | dense | nurse |
|  |  |  | false | pulse |
|  |  |  | geese | rinse |


| se |  |  | advise | noise |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |
|  |  |  |  |  |


| sh | shadow | shield | airship | dashed | gumshoe | rasher | awash | gnash |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| shake | shirt | banshee | dishes | Joshua | rickshaw | blush | posh |  |
| shark | shock | bishop | earshot | kinship | upshot | bush | marsh |  |
| shen | she | shop | bolshee | fashion | marshal | usher | dash | rash |
|  | shed | short | cashew | Fisher | pushes | washer | fish | splash |
|  | shelf | shut | cushion | geisha | pushup | warship | flesh | wash |
|  |  |  |  |  |  |  |  |  |


| shi <br> 'sh' | cushion <br> fashion |  |
| :---: | :--- | :--- | :--- |
|  |  |  |





| ss |  | assure tissue <br> fissure <br> issue <br> 'sh' |  |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
|  | pressure |  |  |
| reassure |  |  |  |
| Russia |  |  |  |$\quad$|  |
| :--- |


| ss |  | Aussies <br> possess <br> scissors |  |
| :--- | :--- | :--- | :--- |
|  |  |  |  |


| ssi |  | accession <br> admission | omission | passion |
| :--- | :--- | :--- | :--- | :--- |
| 'sh' |  |  |  |  |
|  |  | discussion | percussion |  |
|  | egression | permission |  |  |
| emission | recession |  |  |  |
|  | obsession | scission |  |  |



| 't' | table tag tennis tent tide tin | toast |  | fitness gratin hatbox jester later matress | mentor <br> motor <br> nasty <br> poster <br> potato <br> rested |  | at <br> belt <br> bet <br> cat <br> dot <br> flat | just <br> kit <br> hat <br> lent <br> mist <br> right |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | topic |  |  |  |  |  |  |
|  |  | total |  |  |  |  |  |  |
|  |  | treat |  |  |  |  |  |  |
|  |  | trunk |  |  |  |  |  |  |
|  |  | twist |  |  |  |  |  |  |



| tch | butcher | pitcher | catch | itch |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 'ch' | hatchet | ratchet | crutch | match |  |
|  |  | itching | satchel | ditch | patch |
|  |  | etchup | watchman | etch | scratch |
|  | kitchen | witches | fetch | watch |  |
|  | matchless wretched | hatch | witch |  |  |

$\left.\begin{array}{|c|c||c|cc|}\hline \text { te } & & & \text { baste } & \text { private } \\ & & \\ & \\ & \\ & & & & \text { carte } \\ \text { route } \\ \text { cote } & \text { salute }\end{array}\right]$

| th | Thai Thomas <br> Thailand Thomism | Anthony <br> Esther |  |
| :--- | :---: | :---: | :---: |
| 't' | thaler Thompson <br> thalweg thyme |  |  |
| Thames <br> thebe |  |  |  |


| th | thank | thin | Arthur | earthly | Luther | Nathan | bath | Judith |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 'th' | nV | thaw | think | asthma | epithet | menthol | panther | breath |
|  | third | author | faithful | method | pathos | cloth | tenth |  |
|  | thick | thorn | Bertha | fifthly | methyl | python | fourth | tooth |
|  | thief | three | Catherine | Gothic | monthly | tenthly | growth | warmth |
|  | thigh | thud | Cynthia | isthmus | mythical | urethra | health | wreath |


| th | than | there | another | feather | mouthed | seething |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| that | these | betrothed | Heather | neither | smother |  |
| 'th'v | the | they | brother | hither | rather | teething |
| voiced | their | this | clothed | leather | rhythms | thither |


| the $\begin{array}{r} \text { 'th'v } \\ \hline \text { voiced } \end{array}$ |  |  | breathe <br> clothe <br> lathe <br> lithe <br> loathe <br> sheathe | soothe sunbathe swathe teethe tithe writhe |
| :---: | :---: | :---: | :---: | :---: |


| ti |  | action | collection | elation | initial |  |
| :--- | :--- | :---: | :---: | :---: | :---: | :--- |
| 'sh' |  |  | addition | condition | emotion | junction |


| tt |  |  | attach | battle | fettle | Ottawa | bitt |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | watt |  |  |  |  |
|  |  | 't' |  |  |  |  |  |
|  |  | attack | better | gutter | otter | Brett |  |
|  |  | attain | bitten | kettle | pattern | butt |  |
|  |  | attic | bottle | litter | scatter | putt |  |
|  |  | attire | bottom | motto | tattoo | Scott |  |
|  |  | batter | cattle | nettle | utter | sett |  |


| tte |  |  | Annette Colette <br> burette gavotte <br>   <br>  t' |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | butte gazette <br> casette matte <br> culotte palatte <br> curette pipette |


| $\mathbf{u}$ |  | busily <br> business <br> busy <br> minute |  |
| :--- | :--- | :--- | :--- |
|  |  |  |  |



| u | ufology | unisex | acuity | duel | fury | studio |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :--- |
|  | 'ue' | ukulele | unit | acumen | duet | fusion | stupid |
|  | Ukraine | uranium | amulet | duo | futile | stupor |  |
| unicorn | Utah | Cuba | duty | intuit | Stuart |  |  |
|  | unicycle | utopia | document | fuel | monument unusual |  |  |
|  | unique | uvula | dual | fugitive | sputum | usual |  |



| $\mathbf{u}$ |  | bluish | fluent | insulin | ruin | flu |
| :--- | :---: | :---: | :---: | :---: | :---: | :--- |
| ${ }^{\prime} \mathrm{mOO}_{\mathrm{n}}{ }^{\prime}$ |  |  |  |  |  |  |
|  | Brunei | fluid | Inuit | scuba |  |  |
|  |  | brunette | frugal | judo | suet |  |
|  | brutal | Fuji | Judy | truant |  |  |
|  | cruet | gluing | July | truism |  |  |
|  |  | Druids | hula | Lucy | truth |  |



| $\mathbf{u}$ |
| :--- | :--- | :--- | :---: | :---: | :---: | :--- |
| schwa |




| ue 'ue' | $\begin{gathered} \text { duel } \\ \text { fuel } \\ \text { Tuesday } \end{gathered}$ | argue avenue cue due fondue issue | miscue <br> queue <br> revue <br> statue <br> undue <br> venue |
| :---: | :---: | :---: | :---: |


| ue 'mOOn' | gruesome rueful | accrue <br> blue clue construe ensue flue | glue pursue <br> rue <br> sue <br> true |
| :---: | :---: | :---: | :---: |


| ui |  | build <br> built <br> biscuit |  |
| :--- | :--- | :--- | :--- |
|  |  |  |  |



| ur | urban | urgent | burly | church | furlong | murky | cur | recur |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 'er' |  | urbane | urn | Burma | churlish | hurl | purse | concur |
| urchin | Ursula | burnt | curb | hurt | scurvy | demur |  |  |
| Urdu | urticaria | burp | curly | Kurds | surf | fur |  |  |
|  | urge | urticate | bursar | curt | lurk | turf | incur |  |
|  | urgency | urtication | burst | furl | murder | Turkey | occur |  |


| ur <br> schwa | jodhpurs | Arthur femur <br> kronur <br> lemur <br> murmur <br> sambur | siddur <br> Wilbur |
| :---: | :---: | :---: | :---: |



| urr <br> 'er' | burr churr curr purr |  |
| :---: | :---: | :---: |


| uy <br>  <br>  <br> 'ie' |  |  |  |
| :--- | :--- | :--- | :--- |
|  |  |  | buy <br> guy <br> Guy |



| ve |  |  | above | olive |
| :---: | :---: | :---: | :---: | :---: |
| v ' |  | carve | prove |  |
|  |  |  | dove | massive |
|  |  | give | move |  |
|  |  | have | shove |  |
| love | valve |  |  |  |



| w | wag | window | airway | Darwin | nitwit | runway |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :--- |
| walk | wing | awake | dwell | Norway | subway |  |  |
|  | 'w' | war | witch | away | earwig | outwit | swift |
| weekend | wobble | bigwig | Gwen | Owen | Taiwan |  |  |
|  | well | wolf | byway | kiwi | swag | twig |  |
| west | wool | cobweb | midway | swamp | twin |  |  |
|  |  |  |  |  |  |  |  |


| wh | whale <br> what | whisk <br> whisker <br> whelk <br> whistle <br> while <br> white <br> whipped <br> whoop <br> whirl <br> why | anywhere <br> cartwheel | elsewhere <br> flywheel <br> nowhere <br> pinwheel |
| ---: | :---: | :---: | :---: | :--- | |  |
| :--- |


| wh | who <br> whole <br> whom <br> whose |  |  |
| :--- | :--- | :--- | :--- |



| $\mathbf{x}$ |  | exceed excite <br> excel <br> excess <br> excelsior <br> except <br> excise |  |
| :--- | :--- | :--- | :--- |


| x |  | Xanadu <br> Xavier | Xerxes <br> xoanon <br> xenophobia <br> xyloid <br> xenon <br> xerosis <br> Xylophone |  |
| :--- | :---: | :---: | :--- | :--- |


| $\mathbf{x}$ |  | exacerbate exasperate <br> exact exempt <br> exaggerate exert <br> exalt exhort <br> examine exotic <br> example exist |  |
| :--- | :--- | :--- | :---: | :--- |
|  |  |  |  |




| y | Ypres | anyhow | Amy | funny |
| :--- | :--- | :--- | :--- | :--- |
| 'ee' | anyway | Andy | icy |  |
|  |  | babyish | army | ivy |
|  |  | ladybird | baby | jury |
|  |  |  | busy | oily |
|  |  |  | city | sunny |



| $\mathbf{y}$ |  | ylem | asylum | dryad | hyena | shyly | by |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
|  | 'ie' | sky |  |  |  |  |  |
|  |  | bryony | dryer | lying | skyway | dry | sly |
|  |  | Bryant | dyke | plywood | slyest | fly | spy |
|  |  | bylaw | flyby | psyche | stylus | July | try |
|  |  | byte | fryer | rhyme | stymie | my | why |
|  |  | cycle | glycol | scythe | thyme | shy | wry |



| yr <br> schwa |  |  | martyr <br> Merthyr <br> zephyr |
| :--- | :--- | :--- | :--- |
|  |  |  |  |


| $\mathbf{z}$ |  | Zambia | zinc | Amazon | Brazil | gizmo | lizard | ablaze |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| zapper | zipper | Aztec | dozen | hazard | Mozart | amaze | ionize |  |
|  | 'z' |  |  |  |  |  |  |  |
| zeal | zombie | azure | dozing | hazel | Nazi | doze | laze |  |
| zebra | zoom | ozone | enzyme | hazily | razor | faze | maze |  |
|  | Zen | Zulu | bazaar | gazebo | kazoo | unzip | froze | prize |
| zero | zygote | bezel | gazump | lazily | wizard | gaze | size |  |


| ze |  |  | adze | gauze |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
|  | 'z' |  | Belize | maize |
|  |  |  | breeze | ooze |
|  |  |  | bronze | sleaze |
|  |  |  | freeze | sneeze |
|  |  |  | frieze | wheeze |


| $\begin{array}{lll} \hline \text { zz } & \\ & \\ & \text { 'z' } \end{array}$ |  | buzzer <br> dazzled <br> drizzle <br> embezzle <br> fizzle <br> frazzled | grizzly <br> guzzle <br> jacuzzi <br> mezzo <br> mizzen | nozzle | razzle | buzz | whizz |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | nuzzle |  | sizzled | fizz |  |
|  |  | piazza |  | swizzle | frizz |  |
|  |  | pizza |  | unmuzzle | fuzz |  |
|  |  | puzzle quizzed |  |  | jazz pizazz |  |


[^0]:    ${ }^{1}$ The Opening of the Unreasonable Writing of Our English Toung (1551), An orthographie, conteyning the due order and reason, howe to write or paint thimmage of mannes voice, most like to life or nature (1569), and A Methode or comfortable beginning for all vnlearned, whereby they may bee taught to read English, in a very little time, with pleasure (1570)
    ${ }^{2}$ Hart, J., (1570), A Methode or comfortable beginning for all vnlearned, whereby they may bee taught to read English, in a very little time, with pleasure
    ${ }^{3}$ The problem with spelling reform is that it would have to link the spelling of English to one of the accents of English. It would also mean that all previous writings would have to be transcribed into the new script to make it accessible to learners of the new method.
    ${ }^{4}$ Johnson, S, (1755) Dictionary of the English Language.
    ${ }^{5}$ Quoted by Kermode, F., in 'Lives of Johnson' in The New York Review of Books, Vol LIII, Number II, 22/06/2006.

[^1]:    ${ }^{6}$ Crystal, D, (2005), Stories of English, p. 393.
    ${ }^{7}$ Crystal, D, (2005), Ibid., p393.

[^2]:    ${ }^{8}$ McGuinness, D., (2004), Early Reading Instruction, MIT Press, p. 13.
    ${ }^{9}$ Case, S, Philpot, D, and Walker, J, (2003) Sounds $\sim$ Write (Teaching Manual).

[^3]:    ${ }^{10}$ A significant contribution to English spelling was formulated by Ken Albrow. His book The English Writing System was part of the project Linguistics and English Teaching in the 1970s. Albrow's aim was to provide a description of the English writing system for teachers based on the British functional tradition in linguistics now associated chiefly with Halliday.
    Our approach is in fact similar to Albrow's: he designated the one sound to one letter correspondences as 'simple', and the combinations of one sound to more than one letter as 'complex'. We agree with Vivian Cook's encapsulation: 'All the letters in the written word are either orthographic symbols in their own right or form part of larger orthographic symbols. Nothing is left over that can be called a "silent" letter. Albrow's approach abolishes silent letters by making them part of the orthographic symbols containing more than one letter.'
    Cook, V., (2004), The English Writing System, Arnold, London.
    For a fuller discussion of this point see also McGuinness, D., (2004), Ibid., pp53-59.

[^4]:    ${ }^{11}$ Rodgers, G.E, (2004), The Born-Yesterday World of the Reading Experts, AuthorHouse, p. 11

[^5]:    ${ }^{12}$ DfES 0293/2003, Reading Challenge, p28.

[^6]:    * Note: In words such as accelerate, the < cc > is NOT a two-letter spelling, it is two consecutive one-letter spellings $<\mathbf{c}>$, the first representing the sound ' $\mathbf{k}$ ' and the second the sound ' $\mathbf{s}$ '.

[^7]:    ${ }^{13}$ Roach, P., (1991), (2 ${ }^{\text {nd }}$ ed.) English Phonetics and Phonology, CUP., p. 76

[^8]:    ${ }^{14}$ Graddol, D., Leith, D. and Swann, J, (1996), English: history, diversity and change, The Open University and Routledge, London, p264.

