# /pronsaI/ 

# The Pronsci English Word charts 

## The organisation and use of the Word charts for British and American English

This document is best read with an individual size set of the Word charts to hand.

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## Introduction

Pronunciation Science produces two types of English language materials (in both British and American English versions):

- Silent Way charts for use with beginners, and
- PronSci charts designed for use with all other students.

The Rectangle (phonemic) and Spelling charts are common to both sets, but the Word charts differ.

In this document, we describe some aspects of the PronSci English Word charts: the graphic conventions we have adopted in them, their use and pedagogical value, their overall organisation, and the representations chosen for particular words.

The Word charts were designed to support teachers using any methodology. This is most obviously the case for those methodologies that emphasize student expression (Silent Way, Community Language Learning, Dogme, etc) as these never rely on materials that determine what intermediate and advanced students are to say.

But even in conventional classes based around textbooks, there is always scope and encouragement for unplanned work and spontaneous speech. For such occasions, the Word charts fulfil a need for tools that are uncommitted ${ }^{1}$ with respect to lesson topic or content.

Please have an individual size set of the charts to hand while reading. It may also be helpful to refer to the complementary information in the Key to the charts ('Words on the British/American English charts').


When referring to words, we describe their position on the charts using a chart number / line number convention. So together, which is on Chart 4 line 6 , will be shown here as together (4-6).

[^0]We use slanted brackets, e.g. /p/, for phonemic transcription and angle brackets for spelling, e.g. <pp> for the /p/ of suppose.

## Historical development

Caleb Gattegno had the idea for coloured classroom charts for teaching L1 reading and writing in the late 1950s. These formed part of his Words in Colour literacy materials. In the early 1960s he adapted the idea for language teaching, as part of his Silent Way approach for L2 beginners.

The sets of words he chose for the Words in Colour and Silent Way charts were adapted for the needs of those learning to read and those learning a language respectively. The sets are therefore completely different, sharing only the colour code.

The sets of words on the Silent Way and PronSci charts are similar, but arranged differently.
The Word charts show the written form of English words. The teacher and students can point individual words, sounds within words, and sequences of words to create phrases and sentences.

When Gattegno combined using charts with Cuisenaire rods, he showed how a teacher could explain less and demonstrate more, without abdicating her responsibility to create input for her students.

## The choice of words

For language teaching, Gattegno held that the best use of classroom time is to teach those things that students find most difficult to learn without a teacher. Vocabulary is best learned—and most easily learned-as it is naturally encountered. He therefore designed the Silent Way for students to learn "much language with little vocabulary," as he expressed it.

Most of the words he chose to display on the Silent Way charts are the function words of the language: words which allow time, space, human and causal relationships to be expressed. He added some other words that would allow students to express situations created with Cuisenaire rods, and also numbers.

We follow this approach with the PronSci Word charts, adding some words and sets of words that are often useful for pronunciation and other work with false beginners, intermediate and even sometimes advanced students. Any vocabulary items the class needs that aren't on the Word charts can be created on the Spelling chart.

## Displaying the words

In the classroom, the Silent Way charts are put up one by one, as needed by beginners exploring the language for the first time. Words appear in an order in which they can be used in the typical loose progression of a Silent Way class at this level. They are not grouped together in
grammatical or other categories.
In contrast, since non-beginners may need any of the function words of English for the sentences they create, the first twelve PronSci charts are hung on the wall from the start. There is sufficient organisation of words (in broad grammatical categories and by alphabetical order) to enable students to easily find the words they need.

The four themed charts (dealing with Family, Dates, Colours and Arithmetic, and Numbers) can be added and removed as needed.

## Pedagogical principles

## Pointing on charts

The pedagogical advantages of pointing to words are described in detail in our Guides to Pointing, available at https://www.pronunciationscience.com/materials/support/.

While these guides were written with teaching pronunciation as their focus, the content is equally applicable to pointing on Word charts. The guides are essential reading for anyone who is preparing to use the Word charts.

Topics covered include:

- The benefits of using charts and a pointer (keeping the class focused, making sure heads are up, involving the whole class in a given student's problem, and so on)
- Good pointing technique
- Getting students to point: why and how
- Pointing phrases and sentences

One piece of advice given in the Guides is that the best way to get to know the materials well enough to use them in the classroom is to practise beforehand with a large variety of sentences until finding the words you need has become easy.

## Using charts rather than writing words on a whiteboard

Given that the words and word order of a sentence are being demonstrated, one question immediately arises: why not just write the sentence on the whiteboard? Indeed, it is sometimes appropriate to do this, e.g. when students are comparing a number of sentences.

However, writing a sentence on the board gives it a permanence that is often unhelpful because it relieves the students of the need to work on it in their minds. When saying a sentence that is written on the board there is no need to address the choice of words and the order in which they appear; both are given and need only be read.

On the other hand, pointing, like language itself, is ephemeral, and forces students to be much more present to the material. Every time they either say a sentence that has been pointed or point a sentence themselves, they have to 'exercise their linguistic muscle' to reinvent the sentence, i.e. to actually practise language production. Their task is to learn to express themselves and when they point, this skill is practised.

The Word charts display a limited set of words which, by implication, must be important. When one of these words is pointed, it is clear to all that it is not just a vocabulary item but that it has a function in the language and needs their attention. When sentences are written on the board, the students gain no similar sense of the status of its words.

Similarly, words written on the board give the word order and spelling, but the pronunciation is unavailable and is therefore often ignored. This is not the case with pointing on the Word and Spelling charts where the issue of pronunciation is always present.

## Teaching grammar

For teaching grammar, the Word charts are a good example of what can come from Gattegno's work on ways of knowing: in this case applying the principle of working in an analytic way within an overall synthesis. ${ }^{2}$

Since Word charts 1-12 show all the function words of English, students have some idea of the progress they have made and they know what words they have yet to master. Once they realise this, the task of working towards mastery becomes attractive, because the extent of the language can be seen. ("The task is all of this ... but no more.") They may well discover words that they have not previously come across, but will realise that these must be important to have been selected for display on the charts. The charts thus offer an implicit invitation to explore the language.

The Word charts also show all the words within the various systems that make up the language. Chart 1 shows all the pronouns, Chart 2 shows the articles and question words, Chart 5 all the auxiliaries, etc. Again, students work analytically within a synthesis, aware of the extent of the set and therefore the extent to which they have mastered the words in it and what is left to do.

Furthermore, because all the possible choices between words within a system are on display, students recognise the need to develop criteria for choosing.

[^1]
## Correcting

Another reason why the Word charts are well suited to supporting students' gradual mastery of grammar is because of the particular correction techniques they support.

For example,

- When a student is struggling to find a word, either within himself or on the charts, the teacher can give him a hint in a number of ways without giving him the answer, e.g. by making her pointer hover somewhere in the area containing what he needs or telling him on which chart it appears. This way, he has the satisfaction of finding it, without the teacher over-helping.
- She can invite another student to help. If she tells him to, "Only point what you think needs changing" then the charts allow him to do this, again without him over-helping.
- The teacher can cross a word out with her pointer to indicate a wrong choice.
- She can say, "or ...", and point to another word with the intention of provoking an alternative expression to describe a given situation.


## Memorisation versus retention

From the point of view of how languages are learnt, having words displayed on the wall reduces the pressure students feel to memorise. Languages are not memorised, they are retained (Young and Messum 2011). Repeated interaction with the words on the Word charts promotes retention.

## The Word charts as uncommitted materials

Almost all language learning materials are committed in one way or another. That is, their use is prescribed by the developer to prompt discussion on a particular topic, to support the teaching of a particular grammar point, etc. They are often bright and colourful, but they do not always energise students.

In contrast, the PronSci Word charts are uncommitted, unprescribed materials, which support whatever topic the class is discussing, whatever grammar point is being worked upon, etc.

At first sight they appear to be rather static: no more than a pronunciation dictionary in colour on the wall. But when used properly in the ways described here, they support whatever learning the class embarks upon.

It is surprising, perhaps, how few uncommitted tools and materials exist in language teaching. Others include the whiteboard, dictionaries and Cuisenaire rods:


In this light, we consider fingers to be another uncommitted tool:


Like Cuisenaire rods, the Word charts yield little at first sight, but in use they turn out to be as flexible and polyvalent as the rods, adding economy, energy and structure to the work that unfolds. This can follow the interests of class and teacher and is not confined to the topic or structure to which a page in a textbook, for example, commits the class.

For further reading, see Messum and Young (2021).

## The Word charts for pronunciation

The charts are an authoritative source for the pronunciation of all the common words of English:

- the word are (5-1) really is pronounced / / / much of the time.
- the <i> of it (1-1) and the <a> of orange (C-2) really are exactly the same sound. Having letters coloured the same way forces the student to become aware that he must do the same thing whenever he sees a given colour.
- the words every (1-8) and different (11-2) have just two syllables
- and so on ...

Even advanced students can be unsure or confused about the pronunciation of basic words such as:

- were, where and we're
- can and can't
- their, they're and there
- they're and there are
- this and these
- of and off
- walk and work
- want, went, won't and weren't
- use and used to, have and have to
- thirty and thirteen
- half and talk
- love, London, come, son and does
- and so on ...

The fact that so many students beyond beginner level can have pronunciation problems with such basic words as these shows that conventional approaches do not demand the precision in pronunciation needed to deal with them. Having the words on charts with which students interact means that pronunciation issues like these are not ignored.

## Full and reduced forms: developing criteria for their use

Most students, whatever their level, do not know which words can and should be reduced in English. These are clearly indicated on the Word charts by the system of dots, and every time one of these words is pointed the teacher and the students must examine their criteria for which form should be used. Again, an important issue in pronunciation (and grammar) cannot be ignored.
(Similarly, making a choice between the different pronunciations of the auxiliaries, plural <s>, apostrophe <s>, and the <ed> verb endings will force students to clarify their criteria and automatise the correct forms.)

## Overall organisation

There are 16 charts in the set, displaying about 480 words of English, including all the function words of the language, plus 33 suffixes and 11 contractions. The combining forms are shown with tremas ( $\sim$ ), e.g. $\sim$ self.

Some other words can be economically created from words that are on the charts:

- by covering part of a word with a finger to obtain another one, e.g. way from away, head from ahead, bought from brought, etc.
- by running a pointer from one word to another to join them, e.g. from over to come to create overcome.
- by grafting letters from one word onto another. For example, on chart 8, work (8-7) can be turned into word and world by borrowing, for example, the $\langle\mathrm{d}\rangle$ of sound ( $8-2$ ) and the <ld> of held (7-2).

A vocabulary word that is not on the charts is created on the Spelling chart (and before that, if appropriate, on the Rectangle chart).

If such a word is going to be used more than once, then the teacher can 'place' it on the wall outside the border of the Word charts. There is no need to actually write the word here: the wall remains empty. Instead the teacher collapses her pointer to the size of a pen and mimes writing the word. The convention is thus established that tapping on that particular spot refers to the particular word that has been 'placed' there.

As noted in the Key, the charts group words together in themes:


| Chart No. | Themes |
| :---: | :--- |
| 1 | pronouns, demonstratives, yes-no, plurals and possessives |
| $2,3 \& 4$ | articles, question words, and then function words (in alphabetical order) |
| 5 | indicative and modal auxiliaries, and negatives |
| $6,7 \& 8$ | common verbs (in alphabetical order) in all forms (either created using the <br> endings in the bottom lines of charts 6 and 7, or with the irregular forms given <br> explicitly), then verbal compounds like supposed to, used to and going to. |


| 9 | times of the day, ordinals, several useful nouns |
| :---: | :--- |
| 10 | time 'triggers' (in alphabetical order) |
| $11 \& 12$ | adjectives (in alphabetical order), some affixes and verbs useful for classroom <br> management |
| D | days of the week, months and seasons |
| F | family relations |
| N | numbers |
| C | colours and mathematics |

## Criteria for having more than one instance of a 'word'

Language is primarily an oral phenomenon, but the words on the charts are presented in their written form. As with other written language materials, this introduces some potential problems which should be addressed.

In this section, we describe how we treat three classes of words where a single spelling is used either for two or more spoken forms or for two or more meanings.

## 1 Where the meaning of the written form is the same, but it has more than one pronunciation

For example, the words the and either each have two possible pronunciations.
For the, the alternative pronunciation is conditioned by the context (whether the following sound is a consonant or a vowel) and the choice of pronunciation is not discretionary. So both forms of the are shown, at (2-1).

For either (3-3), both pronunciations are acceptable. We show the most common one, based on Wells (2009).

In two cases - our (1-3) and, in American English, marry (F-6) - we show both pronunciations because they are of pedagogical significance. See the notes below, organised by chart number, where we discuss the treatment of individual words.

See also the next section, where we discuss words which have strong and weak pronunciations.

## 2 Where a single written form has two (or more) meanings and two pronunciations (heteronyms)

For example, words like lead, minute and tear.
Since these words sound different in speech but just happen to be spelt the same, we respect
their different meanings/pronunciations and list both words if their importance justifies a place on the charts, e.g. read (12-7) and read (12-7), close (6-5) and close (11-2).

## 3 <br> Where the written form has two (or more) meanings but the pronunciations are the same (homonyms)

For example, words like can, bear and left.
Words can have more than one meaning in many, if not all, languages, and this is therefore not something that will disconcert language learners. Nevertheless, we show some homonyms twice on the charts if they are both verbs and other parts of speech (e.g. like (3-7) and like (7-5), left (3-7) and left (7-5)) because students (and teachers) would not expect to look for the verbal form in the function word section of the charts and vice versa.

## More heteronyms

There are some pairs of words which share one written form but which can be distinguished both by their separate meanings and by their different pronunciation behaviours: one of the words can alternate between strong and weak pronunciation forms while the other can't. The three examples of this are that, there and some, as discussed individually in the sections below on the treatment of particular words.

In many textbooks the members of these pairs of words are not clearly distinguished, but we treat them as heteronyms (the second category above) for the following reason.

A pre-literate child learning these words will have no confusion about them at all - they sound different and they have different meanings. But L2 learners often struggle with these words because they first encounter them through their written form, and they are led to see them as a single word.

Given that the pronunciation and meaning differences of these grammatical heteronyms are quite subtle, it helps the students if the teacher is clear about which form is being used in any given situation. (Just as it is helpful when the teacher distinguishes the auxiliary and main verb functions of be, have and do, which the charts support.)

The English spelling system could easily have had two separate written forms for grammatical heteronyms, e.g. <some> and <summ>, but given that it does not, the use of two representations on the charts is a good way to make the meanings of the different words clear to learners of the language.

## The dots

The pale yellow, pale pink and pale green dots under 45 of the words give the common reduced
pronunciations of these function words, where the full vowel shown in the word itself is replaced by the reduced sound indicated by the colour of the dot.
you (1-3), to (4-6) and do (5-4) have two dots; for their different reduced pronunciations before consonants and vowels (to Paris vs to Amsterdam).
our (1-3) is coloured as a diphthong with a dot beneath that is coloured purple for British English and white for American English. This allows for the situation that Wells (1991) describes: "Some speakers use [purple/white] for the weak form, and the [diphthong form] as the strong; others use only one or only the other." Our impression is that most younger native speakers predominantly use the purple/white form (as portrayed with the dots) in all situations.

The dots under always (10-2), September (D-8) and November (D-9) give alternative pronunciations for these words.

All but two of the 50 or so words in English which have both full and reduced forms are shown with dots underneath them on the charts. Sir and Saint don't appear but can be pointed on the Spelling charts if desired (e.g. in Sir Paul McCartney /sa 'po:l mə'ka:tni/ and Saint Augustine /sənt o:'gnstin/).

## The treatment of particular words

## Chart 1

There are four suffixes needed for the plural of words ending in,

1) vowels and voiced consonants: where the $\sim s$ is pronounced as lilac /z/ (shoes and dogs)
2) voiceless consonants: where the $\sim s$ is pronounced as lime green $/ \mathrm{s} /$ (cats)
3) $/ \mathrm{s} /, / \mathrm{z} /, / \mathrm{S} /, / \mathrm{s} /$, / $\mathrm{t} / \mathrm{f}$ and $/ \mathrm{d} 3 /$ : where the $\sim e s$ is pronounced as $/ \mathrm{iz} /$ in British English and either /iz/ or /əz/ in American English (matches)
4) the letter <0>, like tomato and potato, where the plural form adds ~es, pronounced as /z/

There are three possessive suffixes, 's, covering the pronunciations in the phonetic contexts described in (1), (2) and (3) above.

For the contraction of the verbal form is, see the notes for Chart 5.
that (1-7) is the demonstrative, always pronounced with a full vowel (Wells 1991):

- That man.
- Stop that.
- Not that bad.

The relative pronoun/conjunction that is at (4-5):

- The man that I saw yesterday.
- He told me that he would be there.
one (1-8) (with the initial <o> coloured with aqua /w/ and yellow / $\Lambda /$ ) should be pointed when the pronoun is required, i.e. for a green one and two blue ones. Use one ( $\mathrm{N}-2$ ) for the number.
no~ (1-9) is only used with thing (1-9) for nothing. Other compound words (nobody, nowhere, etc) use no (1-5).

While one (1-8) and thing (1-9) are combining forms, they are also words in their own right with the same pronunciation. ~body (1-8) is shown starting with a trema because when it is pronounced with a weak first syllable /badi/ it can only be a combining form.
some (1-9) is for the use of the word in the combined forms someone, somebody, etc., and when used in opposition and in some other ways (examples from Wells 2014):

- Some people are early risers, others are not.
- It was some time before she saw him again.
- Some day I'll win the lottery.
- That was some party!

In these uses, some is never reduced and is therefore only shown with its /s $\mathrm{sm} /$ pronunciation. For the use of some as a quantifier, see the notes for Chart 4 below.
there (1-9) is the existential pronoun commonly used with be, appear and seem:

- There's a cat in the car.
- There are dogs on the lawn.
- There are a lot of birds on it, too.
- There appears to be a problem with your car.
- There seem to be some frogs in the grass.

This word is never stressed. Wells (1991) says, "Some speakers hardly use the weak form ...; others hardly use the strong form."

Pedagogically, it is better to teach the more reduced form because it gives students more practice in weak forms and helps them to recognise the weak form when they hear it.
there has been placed close to the auxiliaries on Chart 5 (we recommend that Chart 5 is hung
below Chart 1). Note that There are ... is pronounced with a so-called linking-R: the $/ r /$ sound reappears and attaches to the following syllable: /ðə rə/. In There are a lot ... this process happens twice: /ðə rə rə lpt/. In these cases, you can use the Rectangle chart to point the extra /r/ sound.

The adverb of place there is at (4-5). Thus in the sentence, There's a dog over there, the word there should be pointed in two different places.

Chart 1 gives you the opportunity to work on the correct pronunciations of their (1-4), they're (14 and 5-2), there (1-9) (existential) and there (4-5) (adverb of place).

## Charts 2 to 4

On chart 2 , note that the pronunciation of the (2-1) changes before vowels, and $\boldsymbol{a}(2-1)$ becomes $a n$; these variants are shown on line 1.
and (2-1) is given in its /ənd/ variant without a 'strong' form /ænd/ (which is only used when naming the word or, rarely, for contrastive stress). /ən/ is at (N-7).

A reduced pronunciation of many (2-4) is used by some speakers in How many ...?

On chart 3, $\boldsymbol{n}^{\sim}$ (3-3 and 3-9) is repeated in front of both either (3-3) and or (3-9) so that neither and nor are easy to create.
in (3-6) can combine with $\sim$ deed (3-6) and $\sim$ stead (3-7).
left (3-7) is the opposite of right (4-3), while the simple past form of leave is given at (7-5).
like (3-7) is the function word, while the verb is at (7-5).
The position of off (3-8) next to of (3-8) makes it easy to demonstrate the differences in their pronunciations: a reduced vowel, and /v/ rather than /f/ for of.

On chart 4, some (4-4) is a quantifier, which can be said in both weak and strong forms depending upon its position in the phrase (Wells 2014):

- Would you like some /sam/ coffee?
- Let me pour you some /s $\mathrm{Lm} /$.
- Some /səm/ more?
that (4-5) is the conjunction and relative pronoun, always pronounced with a schwa (Wells 1991):
- Say that she's right.
- The one that I chose.

The demonstrative that is found at (1-7).
there (4-5) is the adverb of place, contrasting with here (3-6). The existential there appears at (19)
$\boldsymbol{a l} \sim(4-5)$ combines with though (4-5) and together (4-6). almost (2-7), already (10-1) and always (10-2) appear in their own right.

Note that the pronunciation of to (4-6) changes before vowels in British English and some varieties of American English, e.g. He went to France (schwa) vs. He went to Italy (schwu).
~wards (4-8) combines with up (4-8), down (3-3), in (3-6) and out (4-1), and with words like north, south, east and west; it is always the direction described in these words that is stressed. The pronunciation of towards (4-7) is exceptional in this respect.

## Chart 5

Most of the words on Chart 5 are auxiliaries. be, have and do as main verbs are found on Charts 6 and 7. In He had had a good dinner the first, the auxiliary had is pointed at (5-3) and the second, the verb at (7-1). In How do you do? the first do is pointed at (5-4) and the second at (6-6).

Similarly, been in He's been working on it is pointed at (5-1) and in He's been vegetarian for two years is pointed at (6-1). Note that for the latter, the past participle of be, the pronunciation is generally /bin/ in American English but /bi:n/ in British English (although /bin/ is regularly heard, not regarded as an Americanism, and is always acceptable).

Note that the contraction's (5-2) is not used after words ending in $/ \mathrm{s} /, / \mathrm{z} /, / \mathrm{s} /, / 3 /, / \mathrm{t} /$ and $/ \mathrm{d}_{3} /$. is (5-1) is left uncontracted in these contexts: for example in Jess is young or The judge is old. So there are only two instances of 's shown, with the pronunciations of lilac /z/ and pale lime /s/.

When using 're (5-2) with you (1-3) it may be useful to point out the common modern pronunciation /jo:/ (British English) or /jur/ (American English). These are given on the Spelling charts using <ou're> within the appropriate (brown or mouse colour) vowel sections.

When using 're (5-2) with they (1-4) you will need to cover the bottom of the /eI/ diphthong. The sequence of sounds in they're and their (1-4) is identical, and also identical to the sounds in there (4-5). The three words are homophones.
isn't and wasn't will use $\sim n^{\prime} t(5-5)$ in three colours; aren't and weren't will use it in two colours. This pattern applies similarly with contractions using 'll (5-6 and 5-7)
need is found at (5-5) on the British English Word charts for its use as a modal auxiliary in sentences like You needn't bother. As an auxiliary it is almost always used in the negative but can be found in an affirmative form in negative sentences such as I don't think he need worry. (Note the absence of a $3^{\text {rd }}$ person singular ${ }^{\sim}$ s.) Its use as a modal auxiliary is very rare in American

English and we have not put it on American English chart 5. The verb need is at (7-7) on both sets of charts.

The final modal auxiliary of British English, dare, is too rare to justify a place on the charts.

## Charts 6 to 8

On chart 6, there are four suffixes needed for the $3^{\text {rd }}$ person singular of verbs ending in,

1) vowels and voiced consonants: where the $\sim_{s}$ is pronounced as lilac /z/ (agrees and begins)
2) voiceless consonants: where the ${ }^{\sim} \boldsymbol{s}$ is pronounced as lime green /s/ (gets)
3) $/ \mathrm{s} /, / \mathrm{z} /, / \mathrm{S} /, / \mathrm{s} / \mathrm{l}, / \mathrm{t} \mathrm{f} /$ and $/ \mathrm{d} 3 /$ : where the $\sim e s$ is pronounced as /iz/ in British English and either /iz/ or /az/ in American English (chooses)
4) the letter <o>, like go and veto, where the plural form adds ~es, pronounced as /z/ The past of buy (6-3) can be obtained by covering the <r> of brought (6-3) with a finger. close (6-5) is the verbal form with /z/, while close (11-2) is the adjectival form with /s/.

Note that went (6-8), the past form of go (6-8), is placed out of alphabetical order. (went was originally the past form of the verb wend.)
left (7-5) is the past form of leave, while the opposite of right is at (3-7), almost directly above it.
like (7-5) is the verb, while the function word is at (3-7), on the chart normally hung directly above it.
point appears at (7-8) for the verb and at (C-8) for its use in decimal numbers.

As well as its literal meaning of "bursting something open," pop (7-8) is common in colloquial English as a general- or all-purpose verb for an action that is quick and of short duration:

- I'll pop in/out/over/around later.
- Pop it in the microwave for 20 seconds. Pop it on the table.
- The idea just popped up. The words popped out.

The suffixes for creating both the present and past participles of English are at the bottom of Chart 6, and the suffixes for the simple past at the bottom of Chart 7.

There is a list of the common irregular verbs of English in Appendix 1. Those shown in bold appear on charts 6, 7, 8 and 12 and can be used as exemplars for the forms of the others.

On chart 7, the grey $\boldsymbol{\sim} \boldsymbol{i} \sim(7-9)$ is used to create the past forms of verbs ending in $\langle y\rangle$. It 'takes on'
the colour of the letter it replaces. Thus in tried, the $\sim_{i \sim}^{\sim}$ picks up the yellow/pale pink diphthong from the $\langle y>$ of try (8-6), while in a word like carried, the $\sim i \sim$ picks up the pale pink from the $\langle y>$ of carry.

The fuchsia (/t/) and green (/d/) forms of $\sim$ ed (7-9) are used with regular verbs ending respectively (i) in a voiceless sound (walked, stopped, passed, etc), and (ii) in a voiced sound or vowel sound (climbed, sagged, showed, preferred).
~ed (7-9) written with pale pink/green is needed for the simple past of verbs ending in /t/ or /d/, like pointed or ended.
have, has and had (7-1) are the main verb forms of the word. As an auxiliary, its forms are shown on Chart 4, and in the compound forms have to, etc, on Chart 8.

On chart 8, supposed to (8-7) (using to from the end of the following line, and preceded by to be) is the modal verb phrase meaning expected to or required to: e.g. I was supposed to go to London last week. Most English speakers pronounce supposed to in two syllables, although a three syllable pronunciation is also used. Contrast supposed to with the verb suppose ( $8-3$ ), the past form of which is created using the $/ \mathrm{d} /$ pronunciation of $\sim e d(7-9)$.
used to (8-8) is the distinctive pronunciation of these words /ju:sta/ in sentences like I used to like ice-cream (but not any more). Note that this contrasts with the verb use ( $8-6$ ) and the noun use (9-9).
have to, has to and had to (8-9) (using to from the end of the previous line) are the pronunciations of this compound with a devoiced central consonant signifying 'obligation': /hæftə/,/hæstə/ and /hæt.tə/. In class, this can be contrasted with the pronunciation of / have two pens.

So the three verbal forms of to have in, I've had to have an operation, would be pointed on Charts 5, 8 and 7 respectively.
going to (8-8) shows the normal pronunciation /gənə/ of these words when expressing a 'future': I'm going to visit my aunt tomorrow. This is not used, of course, when go is the verb: I'm going to London, which would be pointed as go +ing on Chart 6.

Similarly want (8-9) combines with to (8-8) to create the pronunciation /wnnə/ for sentence like We want to go to London.

## Chart 9

On lines 7 to 9 , the unusual plural forms of man, person and woman are shown. The combining forms ~man and ~men are reduced (pronounced with schwa) in well-established usages such as workman and tradesmen but not (yet) in newer forms such as spaceman and handyman.

The pronunciation of the noun use (9-9) contrasts with the pronunciations of the verb use (8-6) and the verbal phrase used to (8-8).

## Chart 10

often (10-6) is pronounced without a /t/ by about three-quarters of native speakers in both the USA and the UK.

## Charts 11 and 12

On chart 11, close (11-2) is the adjective with /s/ while close (6-5) is the verbal form with $/ \mathrm{z} /$.

The grey $\sim i \sim(11-9)$ is used to create the comparative forms of adjectives ending in <y>. It 'takes on' the colour of the letter it replaces. Thus in a word like drier, the $\sim_{i \sim}^{\sim}$ picks up the yellow/pale pink diphthong from the $<\mathrm{y}>$ of $d r y$, while in easier, the $\sim \sim \sim$ picks up the pale pink from the $<y>$ of easy (11-3).
~i~ (11-9) can also be used to show the behaviour of adverbs (happily, daily, etc) and nouns (spies, etc).
than (11-9) is only pronounced in a weak form /ðən/.

On chart 12, the forms of some verbs commonly used in the classroom (read, say, spell, tell and write) are collected together on lines 7 to 9 of Chart 12 . These verbs equip the students to interact directly with other students during class work and thus help them to manage their learning.

## The themed charts

If wall space is limited, the four themed charts need only be displayed when they are relevant.
The upper part of the Colours and Arithmetic chart has the colour names that are needed by a teacher who is using these charts and Cuisenaire rods with beginners or low intermediate students. (The word rod itself is on line 1.)

The bottom of this chart (Arithmetic) and the Family, Dates and Numbers charts present selfcontained 'universes' of words which allow students to create strings and sentences of restricted variability. For example:

- "Fifteen multiplied by three equals forty-five."
- "My aunt's daughter has two children, a boy and a girl."
- "My birthday was on Monday the twenty-first of October."
- "Five million, three hundred and forty-four thousand, two hundred and sixteen."
- "Six hundred and seventy-two billion, ..."

This means that after the initial learning of the system, when the content has ceased to be a significant challenge, the students are free to concentrate on the quality of their production (pronunciation of the sounds, stress and reduction, phrasing, etc).

This is helpful for all levels of students, even (perhaps especially) for the most advanced.
The themed charts also contain a selection of three syllable words with different stress/reduction patterns, and many words that students will think they know how to pronounce but which exemplify common problems: for example, the pronunciation of / $\Lambda /$ (in brother, cousin, love, son, uncle and mother).

There are also more words and opportunities to work on problematic sounds; for example the pronunciation of / $\delta /$ (in brother, father and mother), and / $\theta /$ (in three hundred and thirtythree).

The Family chart is also a useful prompt for class conversations.

## Chart F

marry (F-6) has two pronunciations in American English, of approximately equal usage across the country. Thus the <a> has been given two colours divided vertically to indicate that they are alternatives. In British English, there is only a single pronunciation.

## Chart D

~day (D-1) is given with its weak /di/ pronunciation. This can be contrasted with the non-suffix /dei/ pronunciation of day (10-2), which can be 'pulled' into use when it is appropriate for any of the days of the week. John Wells gives this usage advice:
"Although RP and Gen Am are both traditionally considered to prefer /di/ most speakers in practice use both pronunciations for this suffix, often in a strong form-weak form relationship. The /dei/ form is generally preferred in exposed positions, for example at the end of a sentence: I'll do it on Monday /m^ndeI/; the /di/ form is preferred in close-knit expressions such as Monday morning /m^ndi mo:nıy/." Wells (1991: 188)

## Chart C

point appears at (C-8) for its use in decimal numbers and at (6-8) for the verb.
Note that the 'classroom' vocabulary words question, wrong and answer appear on (C-9).
right is at (4-3).

## Chart N

Use one (1-8) for the pronoun and one ( $\mathrm{N}-2$ ) for the number.
Note that the three ways of pronouncing the numeral <0> are all given: nought, zero and oh on lines 5,7 and 8 respectively. nought is often used for decimal numbers less than 1 , e.g. 0.5 would be said nought point five, and oh is often used with telephone numbers, e.g. 02072740033 might be said oh-two-oh, seven two seven four, double-oh double-three.
and ( $\mathrm{N}-7$ ) is given in its /ən/ variant. /ənd/ is at (2-1).
$\sim_{h}(\mathrm{~N}-9)$ is needed for eighth.

## References

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If you have any questions or suggestions for improving this guide, please write to us at info@pronsci.com. We would be happy to hear from you.

## Appendix 1 - Common irregular verbs, grouped by form

Verbs in bold appear on Word charts 6, 7, 8 and 12.



[^0]:    ${ }^{1}$ See p. 6 for a short explanation of committed/uncommitted materials and Messum and Young (2021) for a longer elaboration.

[^1]:    ${ }^{2}$ The maps of city metro systems exemplify this in daily life, displaying the 'big picture'-a synthesis-in a way that makes it possible for the user to plan a particular, individual journey with ease. Another example is the work on particular sounds and strings of sounds that can be done within the synthesis provided by the PronSci Rectangle chart.

