Review of the DfE chart: *Phonemic transcription examples using the International Phonetic Alphabet (IPA)*

by Debbie Hepplewhite May 2013

The chart immediately below appears twice in the publication: *Department for Education: English Programmes of study for Key Stages 1-2, February 2013*.
The chart can be found after the *Appendix 2: Grammar and punctuation* on page xix and after the *Glossary for the programmes of study for English at Key Stages 1 and 2* on page xxxiv at the end of the publication.
This is an exact copy of the chart in the DfE draft English curriculum on page xxxiv:

Phonemic transcription examples using the International Phonetic Alphabet (IPA)

Vowels							
ʌ	but, cup	ɜː	shirt, burn	ʊ	pull, should	əʊ	show, go
ɑː	arm, bar	ɪ	sit, fitting	uː	glue, food	ɔɪ	boy, join
æ	cat, nap	iː	bee, beat	aɪ	lie, sky	ɛə	fare, air
ɛ	let, bed	ɒ	not, lock	aʊ	cow, shout	ɪə	here, ear
ə	alone, upon	ɔː	call, law	eɪ	eight, say	ʊə	sure, tour

Consonants							
b	ball, dab	k	cat, luck	ɹ	read, cry	ð	the, father
d	do, shade	l	lit, silly	s	see, kiss	v	vase, alive
f	fall, if	m	man, imp	ʃ	she, stash	w	wall, window
g	go, sag	n	no, on	t	too, set	z	zoo, crazy
h	have, hold	ŋ	ring, finger	tʃ	cheap, itch	ʒ	measure, television
j	yes, yank	p	pal, stop	θ	thistle, both	dʒ	jam, barge

The document (the complete draft curriculum) is available from the DfE website at www.education.gov.uk/nationalcurriculum
Enquiries regarding the publication: www.education.gov.uk/contactus   Reference: DFE-00032-2013

Introduction   The publication *Department for Education: English Programmes of study for Key Stages 1-2, February 2013* was accompanied by an invitation for general review.

In my response, I suggested that it would be extremely helpful for teachers to be provided with a generic Alphabetic Code Chart in the appendix which could include: 1) *easy-to-understand* notation for the sounds of our speech, *alongside* 2) the *symbols* of the International Phonetic Alphabet (IPA), plus 3) a *comprehensive* range of *spelling alternatives within word examples* which are generally recognised as code for the sounds in thorough and current systematic synthetic phonics and linguistic phonics programmes in England. *See the example chart at the end of this paper which includes these features*.

The content of the draft English curriculum appendix for *Revision* and *New work* is headed *Statutory requirements* with additional very detailed information headed *Rules and guidelines (non-statutory)* and *Example words (non-statutory)*. There is very specific detail for basic skills teaching in the English draft curriculum and some people have commented that a national curriculum is not the place for such detail. It is precisely because there is considerable detail about the make-up of words and about phonics, however, that it seems entirely appropriate, in addition, to include a very practical generic Alphabetic Code Chart which could provide several levels of information *all within one chart*.

The level of detail in the draft curriculum for English is clearly a genuine attempt to embed in statute some fundamental knowledge and understanding underpinning phonics, reading, spelling and grammar instruction – and a good attempt to reconcile and describe the relationship between word decoding, language comprehension and the role of literature and the wider aspects of literacy.

Sir Jim Rose's recommendation of the *Simple View of Reading* model (*Independent Review of the Teaching of Early Reading Final Report, Jim Rose, March 2006*) made a considerable impact in England for teacher education, and it has also been noted and is influential internationally. It is disappointing that it was not thought appropriate to include the *Simple View of Reading* diagram in the appendix – the *Simple View of Reading* (*Gough and Tunmer 1986*) having been officially acknowledged as a 'useful conceptual framework' and subsequently adopted widely in Initial Teacher Education (ITE).

Taking a look at information in the Appendix

The decision of the Department for Education (DfE) to provide a *phonemic chart* with units of sound which are *only* at the level of the *phoneme* does not reflect the *actual* 'alphabetic code' that teachers have to understand fully on a professional level and teach in reality for reading and spelling purposes. An alphabetic code for teacher-training, teaching and learning *based on phonemes* has to include 'combined phonemes' for some letters and letter groups. We see this complexity of the code touched upon in the detailed non-statutory notes, which **I have copied and shaded the 'combined phonemes' in red below**:

In various places we see references such as: "Both the /u:/ and **/ju:/** sounds can be spelt **u–e"** (page iii)

"Both the /u:/ and **/ju:/** ("oo" and "**yoo**") sounds can be spelt as **u–e**, **ue** and **ew**." (page iv)

This section is from page v (the **/əl/** combination is helpful when included in an alphabetic code chart):

The /l/ or /əl/ sound spelt –le at the end of words	The **–le** spelling is the most common spelling for this sound at the end of words.	table, apple, bottle, little, middle
The /l/ or /əl/ sound spelt –el at the end of words	The **–el** spelling is much less common than **–le**. The **–el** spelling is used after **m**, **n**, **r**, **s**, **v**, **w**.	camel, tunnel, squirrel, tinsel, travel, towel
The /l/ or /əl/ sound spelt –al at the end of words	Not many nouns end in –**al**, but many adjectives do.	metal, pedal, capital, hospital, animal

Further, on page viii we see more *combined phonemes* expressed within one set of slash marks (these combinations do not need to appear in a generic alphabetic code chart):

Words with endings sounding like /ʒə/ or /tʃə/	The ending sounding like /ʒə/ is always spelt **–sure**.	measure, treasure, pleasure, enclosure
	The ending sounding like /tʃə/ is often spelt **–ture**, but check that the word is not a root word ending in **(t)ch** with an **er** ending, e.g. *teacher*, *catcher*, *richer*, *stretcher*.	creature, furniture, picture, nature, adventure
Endings which sound like /ʒən/	If the ending sounds like /ʒən/, it is spelt as **–sion**.	division, invasion, confusion, decision, collision, television
Endings which sound like /ʃən/, spelt –tion, –sion, –ssion, –cian	Strictly speaking, the endings are **–ion** and **–ian**. Clues about whether to put **t**, **s**, **ss** or **c** before these endings often come from the last letter or letters of the root word.	
	–tion is the most common spelling. It is used if the root word ends in **t** (invent) or **te** (hesitate).	invention, injection, action, hesitation, completion
	–ssion is used if the root word ends in **ss** or –**mit**. **–sion** is used if the root word ends in **d** or **se**.	expression, discussion, confession, permission, admission expansion, extension, comprehension, tension
	Exceptions: attend – attention, intend – intention **–cian** is used if the root word ends in **c** or **cs**.	musician, electrician, magician, politician, mathematician

On page xi, we see further examples of word chunks expressed as combined phonemes (these combinations do not need to appear in a generic alphabetic code chart):

Endings which sound like /ʃəs/ spelt –cious or –tious	Not many common words end like this. If the root word ends in **–ce**, the /ʃ/ sound is usually spelt as **c** – e.g. *vice – vicious*, *grace – gracious*, *space – spacious*, *malice – malicious*. **Exception**: *anxious*	vicious, precious, conscious, delicious, malicious, suspicious ambitious, cautious, fictitious, infectious, nutritious

Summary   I find the use of the IPA symbols in the appendix grids rather ad hoc. The reader may need to skip to the *word examples* to *work out* the sounds being referred to unless the reader already knows the IPA symbols to automaticity. Do teachers generally know the IPA symbols? The curriculum would benefit from a *more informative* form of alphabetic code chart to include the IPA symbols *alongside* the 'common' way of notating the sounds at phoneme level (such as /eɪ/ /ai/). This would help teachers.

Include word examples with a *comprehensive range* of spelling alternatives as code for the phonemes such as: **ai**d, tr**ay**, t**a**bl**e**, c**a**k**e**, gr**ey**, br**ea**k, **eigh**t, rather than the current IPA chart which is *sometimes* based on the phoneme and grapheme in *different positions* of the example words (ba̲ll, da̲b), and *sometimes* based on providing two *different spelling alternatives* (f̲a̲re, a̲i̲r). This is inconsistent. Include *essential* letters and letter groups which are code for 'combined phonemes' such as '**x**' as code for /k+s/ as in 'fo**x**' and '**u**' as code for /y+oo/ as in '**u**niform'. A number of these essential *letter/s-sound correspondences* are neglected in the draft curriculum whereas others are explained. The current format of the IPA chart is misleading by focusing *only* on *phonemes* and not the essential *combined phonemes* which a more complete alphabetic code requires such as /k+s/, /g+z/, /k+w/, /ul/, /y+oo/, and possibly /y+oor/, /ng+k/ and /ch+u/ or /ch+er/. Some of these are *necessary*, some are simply *practical*.

In the IPA chart, some selected word examples are ill-advised such as words with *split digraphs* whereby the linking of a grapheme to a phoneme may or may not include the final letter 'e'. In the IPA chart, for example, the 'd' in 'sha̲d̲e' is underlined as code for /d/ whereas a chart focused on phonemes to print would arguably tally this way: /d/ sha̲d̲e. A less ambiguous word such as 'groun̲d̲' would be better as it is not so open to interpretation dependent on whether you are reading from *print to sound*, or spelling from *sound to print*. I question the underlining of 'a' in 'a̲rm' and 'ba̲r' instead of the letter group 'ar'. The letter 'a' underlined as code for the /ar/ sound does not match current synthetic phonics teaching. In one of the two charts, for the /w/ sound, the final letter 'w' is underlined in 'w̲indow̲' and in the other chart, the letter group 'ow' is underlined in 'w̲indo̲w̲'. Neither version makes sense relative to phonics programmes in which the letter group 'ow' is presented as code for the /oa/ sound – not /w/. Finally, we see overarching headings of *Vowels* and *Consonants* for the IPA chart which is not sufficient as we need to clarify 'sounds' or 'letters' whenever we refer to 'vowel*s'* or 'consonants' even where the headings appear evident. The word examples in the chart appear under the headings and include vowel and consonant letters.

It may well prove to be very helpful that the national curriculum for English includes so many details of 'the basics' as literacy underpins fundamentally our pupils' health and well-being, education and life-chances. New teachers will appreciate a central document which clarifies the statutory expectations for essential teaching. But is this a missed opportunity to support the teaching profession with a *thorough* understanding of the *alphabetic code* and *to fully establish the notion* of a comprehensive Alphabetic Code Chart? There are 'missing aspects' of the alphabetic code in the draft curriculum and it could be argued that the code information *is not provided clearly*.

Some may say further specifics about the alphabetic code in the draft curriculum are unnecessary as this information is provided in the schools' chosen phonics programmes, but then you could say that about any of the details for the phonics, spelling and grammar information included in the draft national curriculum for English. The Department for Education is giving every sign that it wants to take a strong lead in literacy but should the authors of the curriculum appreciate that comprehensive *Alphabetic Code Charts* for the purposes of training teachers and teaching assistants, for teaching, for learning and for informing parents are *truly central* and should arguably be in every serious document related to reading and spelling instruction, in every synthetic phonics and linguistic phonics programme and in every classroom?

A Suggested Generic Alphabetic Code Chart for the DfE National Curriculum for English Appendix - including the International Phonetic Alphabet

IPA symbols for phonemes and combined phonemes	Easy-to-use notation for units of sound	Graphemes, or spelling alternatives, within word examples which are code for the sounds	IPA symbols for phonemes and combined phonemes	Easy-to-use notation for units of sound	Graphemes, or spelling alternatives, within word examples which are code for the sounds
vowel sounds			**consonant sounds**		
/æ/	/a/	**a**pple	/b/	/b/	**b**ed ra**bb**it **b**ui**l**der
/ɛ/	/e/	**e**gg h**ea**d s**ai**d	/k/	/k/	**c**at **k**itten du**ck** **ch**aracter **qu**iche pla**que**
/ɪ/	/i/	**i**nsect cr**y**stal	/d/	/d/	**d**og mi**dd**le play**ed**
/ɒ/	/o/	**o**tter w**a**tch	/f/	/f/	**f**ish cli**ff** **ph**onics lau**gh**
/ʌ/	/u/	**u**mbrella m**o**ney t**ou**ch	/g/	/g/	**g**irl ju**gg**le **gu**est **gh**erkin travelo**gue**
/eɪ/	/ai/	**ai**d tr**ay** t**a**ble regg**ae** r**a**ke gr**ey** br**ea**k w**eigh**t	/h/	/h/	**h**at **wh**o
/iː/	/ee/	**ee**l **ea**t **e**mu th**e**me k**ey** ch**ie**f sard**i**nes	/dʒ/	/j/	**j**umper villa**ge** **g**erm **g**iant **g**ym ba**dge**
/ɪ/ to /iː/	between/i-ee/	funn**y** donk**ey** pix**ie**	/l/	/l/	**l**adder be**ll**
/aɪ/	/igh/	l**igh**t p**ie** ch**i**ld fl**y** b**i**ke **ei**derdown	/əl/	/ul/	kett**le** penci**l** meta**l** tunne**l**
/əʊ/	/oa/	**oa**k cr**ow** mang**o** **o**boe r**o**pe d**ough** plat**eau**	/m/	/m/	**m**onkey ha**mm**er so**me** la**mb** autu**mn**
/j/ + /uː/	/y+oo/	barbec**ue** **u**niform c**u**be st**ew** pn**eu**matic	/n/	/n/	**n**et bo**nn**et **kn**ot **gn**at
/ʊ/	short /oo/	b**oo**k sh**ou**ld c**u**shion	/ŋ/	/ng/	ri**ng** ju**ng**le
/uː/	long/oo/	sp**oo**n gl**ue** fl**u**te fr**ui**t cr**ew** s**ou**p m**o**ve thr**ough** s**u**perb	/p/	/p/	**p**en pu**pp**et
/ɔɪ/	/oi/	**oi**ntment b**oy**	/k/ + /w/	/k+w/	**qu**een
/aʊ/	/ou/	m**ou**th **ow**l pl**ough**	/ɹ/	/r/	**r**oad ba**rr**el **wr**ist **rh**inoceros
/ɑː/	/ar/	**ar**tist dr**a**ma p**al**m	/s/	/s/	**s**un cro**ss** prin**ce** mou**se** **c**entimetre **c**ircus **c**ycle **sc**ience whi**s**tle **ps**eudonym
/ɔː/	/or/	f**or**k **oar** d**oor** pinaf**ore** p**our** w**ar**drobe			
	or/aw/(accent)	f**aw**n **au**tomatic t**al**k t**augh**t b**ough**t w**a**ter	/t/	/t/	**t**iger bu**tt**er slipp**ed** dou**bt** **pt**erodactyl
/ɜː/	/ur/	f**er**n sh**ir**t p**ur**se **ear**th w**or**m	/v/	/v/	**v**an ser**v**e
/ə/	schwa/u/ "uh"	moth**er** flav**our** centr**e** coll**ar** **a**bove sudd**e**n	/w/	/w/	**w**orm **wh**isk peng**u**in
/ɛə/	/air/	**ch**air c**are** p**ear** wh**ere**	/k/ + /s/	/k+s/	fo**x** (plurals: boo**ks** du**cks** bi**kes**)
/ɪə/	/eer/	**ch**eer **ear** adh**ere** front**ier**	/g/ + /z/	/g+z/	e**x**act (plurals: pe**gs** e**ggs** catalo**gues**)
/j/ +/ʊə/	/y+oor/	**p**ure	/j/	/y/	**y**ak
			/z/	/z/	**z**oo fi**zz**y (plural: pie**s**) chee**se** bree**ze** **x**ylophone
			/tʃ/	/ch/	**ch**erry hu**tch**
			/ʃ/	/sh/	**sh**ip **ch**ef na**ti**on politi**ci**an mi**ss**ion
			/θ/	unvoiced/th/	**th**under
			/ʒ/	/zh/	vi**si**on mea**s**ure **g**enre photomonta**ge**

The complexities of the English Alphabetic Code:

1. One sound (phoneme) can be represented by one, two, three or four letters: e.g. /a/ a, /f/ ph, /igh/ igh, /ai/ eigh
2. One sound can be represented by multiple spelling alternatives (graphemes): e.g. /oa/: o, oa, ow, oe, o-e, eau, ough
3. One grapheme can represent multiple sounds:
   e.g. 'ough': /oa/ though, /or/ thought, /oo/ through, /ou/ plough, schwa /u/ thorough

On this chart, the 'hollow letters' (hollow letters) alert the reader to a possible pronunciation in certain words and a specific pronunciation in some words (such as the 'soft c' principle).

For the /θ/ /ð/ row: /θ/ unvoiced/th/ **th**under | /ð/ voiced /th/ **th**ere

No Alphabetic Code Chart can be definitive because of regional and national accents and the different interpretations people give to speech sounds and spelling alternatives.

Example chart by Debbie Hepplewhite May 2013