National curriculum tests

# Key stage 1

# Assessment framework for the development of the Year 1 phonics screening check

**For test developers**

Standards
& Testing
Agency

# Contents

# 1. Introduction

In September 2011, the Government announced that a new, statutory phonics screening check for all children in Year 1 would be introduced during the current academic year.

The Year 1 phonics screening check was piloted in approximately 300 schools in June 2011. Each school in the pilot administered a version of the phonics screening check to their children in Year 1.

The pilot was independently evaluated by Sheffield Hallam University. The evaluation looked at the process of administering the phonics screening check, in particular whether the assessment is manageable for schools and appropriate for Year 1 children. The results from the pilot will be used to provide evidence of the validity and reliability of the assessment and to develop phonics screening checks for future years.

This document sets out the specification for the development of the phonics screening check for 2012 and beyond. A full technical report on the findings from the pilot will be made available early in 2012 on the DfE website.

## 1.1 The purpose of the Year 1 phonics screening check

The purpose of the phonics screening check will be to confirm that all children have learned phonic decoding to an age-appropriate standard.

Children who have not reached this level should receive extra support from their school to ensure they can improve their decoding skills, and will then have the opportunity to retake the phonics screening check.

### Use of data

After full national roll-out, the data will be used in the following ways:

- Individual children's results will be made available to parents, so that parents are kept informed about their child's progress in developing word-reading skills.
- School-level results will be recorded and made available to Ofsted on RaiseOnline for use in inspections.
- The school-level results will not be published in performance tables.
- National results will be reported to track standards over time.
- National and local authority results will be reported to allow schools to benchmark the performance of their children.

## The impact of the Year 1 phonics screening check

It is hoped that the Year 1 phonics screening check will encourage schools to pursue a rigorous phonics programme for all children at the start of primary school.

- The phonics screening check should identify children who have not learned to decode using phonics by the end of Year 1. These children will then receive additional support to ensure they can improve their decoding skills.

- By promoting the teaching of systematic synthetic phonics and identifying children who need extra support, it is hoped that introducing the phonics screening check will lead to an increase in the number of children able to read competently by the time they reach the end of key stages 1 and 2.

Evaluation of the potential impacts of the phonics screening check will be monitored over the early years of national roll-out.

# 2. Content standards

As part of the standard-setting process, a group of phonics experts developed a draft performance descriptor. At the two standard-setting exercises, involving around 25 teachers each, this performance descriptor was agreed as an appropriate expected standard for children at the end of Year 1.

The following statement explains what we believe a child should be able to achieve on the phonics screening check at the end of Year 1.

Children who have achieved the expected standard at the end of Year 1 will have experience of decoding all of the types of words that appear in the Year 1 phonics screening check. They will know the grapheme-phoneme correspondences and be able to blend phonemes in words with the orthographical structures that have been included in the phonics screening check. However, children at the minimum expected standard will **not necessarily** score full marks.

In particular this means that in the phonics screening check, a child working at the minimum expected standard should be able to decode:

- **all items** with simple structures containing single letters and consonant digraphs
- **most items** containing frequent and consistent vowel digraphs
  - 'frequent' means that the vowel digraph appears often in words read by children in Year 1
  - 'consistent' means the digraph has a single or predominant phoneme correspondence
- **all items** containing a single 2-consonant string with other single letters (i.e. CCVC or CVCC)
- **most items** containing two 2-consonant strings and a vowel (i.e. CCVCC)
- **some items** containing less frequent and less consistent vowel digraphs, including split digraphs
- **some items** containing a single 3-consonant string
- **some items** containing 2 syllables.

It should be noted that where items contain a number of the different features listed above, decoding will become more difficult. It will become less likely that a child working at the minimum expected standard will be able to decode such items appropriately. For example, a child will be less likely to decode an item containing both a consonant string and a less frequent vowel digraph, than an item with a consonant string but a frequent, consistent vowel digraph.

## 2.1 Non-assessed content standards

The introduction of this phonics screening check in no way underestimates the importance of teaching wider reading skills. All children should be taught to read for meaning and pleasure throughout primary school. The evidence shows phonics teaching is most effective when taught as part of a language-rich curriculum. Introducing a check of phonic decoding in Year 1 does not mean that teachers should delay teaching children wider literacy and comprehension skills.

However, the assessment of comprehension will not be included in this check. Assessing only phonic decoding will help to limit the assessment requirements at the start of primary school. Key stage 1 assessments will continue to cover wider aspects of reading and writing.

Since this phonics screening check is a decoding check, only words that are phonically decodable have been included. It is expected that teachers will ensure that elements of early reading not assessed in this phonics screening check are also taught, such as reading and discussing books. The following statements indicate additional skills that children should possess by the end of Year 1 but that will not be included in the phonics screening check.

By the end of Year 1 children should:

- apply phonic knowledge and skill as the prime approach to reading unfamiliar words that are not completely decodable
- read many frequently encountered words automatically
- read phonically decodable three-syllable words
- read a range of age-appropriate texts fluently
- demonstrate understanding of age-appropriate texts.

It is vital that children are given the opportunity to develop these skills throughout Year 1, in addition to developing the phonic decoding skills that are assessed in the phonics screening check.

# 3. Check specification

This section details the content and cognitive domains for the phonics screening check and starts with a high level overview of the check.

## 3.1 Check structure

There will be some practice words for children before the phonics screening check begins. These words should help familiarise children with the activity and provide some less difficult words to ease children into the phonics screening check. These words will have the orthographic structure VC and VCC. The practice words will not be scored.

The phonics screening check will be constructed of 20 real words and 20 pseudo-words. The pseudo-words provide the purest assessment of phonic decoding because they will be new to all children, and so there will be no unintended bias based on visual memory of words or vocabulary knowledge. The pseudo-words will be presented with a picture prompt (a picture of an imaginary creature) and children will be asked to name the type of creature. This approach makes it clear to children that they are reading a pseudo-word, which they should not expect to be able to match to their existing vocabulary. The real words will include between 40 per cent and 60 per cent less common words, which children are less likely to have read previously. Less common words are included so that the majority of children will need to decode using phonics rather than rely on sight memory of words they have seen before.

The phonics screening check will be made up of two sections with items in each section relating to specified elements of the content domain. Items within each section will be ordered according to orthographical representation with real and pseudo-words grouped together. Each section will contain 20 items. It is necessary to start with easier words in section 1 to make the phonics screening check accessible and to provide some information to teachers if their children are unable to decode relatively simple words. However, the words at the end of the phonics screening check are around the level of difficulty we expect children to reach by the end of Year 1. These items will provide more information on whether children are working above or below the expected standard.

Over time, the phonics screening check will include all single letters of the alphabet and all grapheme-phoneme correspondences listed in this document. Inclusion of a particular grapheme will not necessarily be in proportion to its frequency in words that are appropriate for children at the end of Year 1 (for example, the letter 't' will not necessarily appear more frequently than the letter 'x' even though it is more common in words experienced by children at the end of Year 1).

In each phonics screening check, no bigrams will be included that have been classified as low frequency; no more than 25 per cent of bigrams will be classified as medium frequency and the remainder will be classified as high frequency. Classification of bigrams as low, medium and high frequency is given in appendix A.

Each phonics screening check will ensure that the number of words in the orthographic 'neighbourhood' of a word with just one letter change (neighbourhood size) is varied to ensure a variety of neighbourhood sizes in the phonics screening check since this is known to affect a child's ability to respond, particularly to pseudo-words.

Pseudo-words will not be homophones for real words: for example, we would not use the pseudo-word 'beek'.

The two-syllable words assessed will be real words because of the difficulty of inventing polysyllabic pseudo-words with limited alternative pronunciations that can be scored reliably. This is an issue for two-syllable words because of the effects of stress placement on vowel pronunciation.

All letters in the phonics screening check will be lower case.

The standard version of the phonics screening check will contain four words per page in a list. Schools will be allowed to modify the phonics screening check by changing font, font size and format to enable access to the phonics screening check for children with special educational needs (SEN). See section 3 of the Assessment and Reporting Arrangements (ARA) for more information.

## 3.2 Content domain

The content domain for the Year 1 phonics screening check is defined in the two sections below.

### 3.2.1 Section 1

Section 1 will contain words using the following grapheme-phoneme correspondences.

| Grapheme | Phoneme | Example word |
|----------|---------|--------------|
| a | /æ/ | cat |
| ar | /ɑ:/ | arm |
| b | /b/ | bad |
| c | /k/ | cat |
| ch | /tʃ/ | check |
| ck | /k/ | check |
| d | /d/ | dog |
| e | /ɛ/ | hen |
| ee | /i:/ | see |
| f | /f/ | if |
| ff | /f/ | puff |
| g | /g/ | gum |
| h | /h/ | how |
| i | /ɪ/ | hit |

| Grapheme | Phoneme | Example word |
|:---:|:---:|:---:|
| j | /dʒ/ | jug |
| k | /k/ | key |
| l | /l/ | leg |
| ll | /l/ | hill |
| m | /m/ | man |
| n | /n/ | man |
| ng | /ŋ/ | sing |
| o | /ɒ/ | hot |
| oi | /ɔɪ/ | coin |
| oo | /u:/ & /ʊ/ | room & book* |
| or | /ɔ:/ | born |
| p | /p/ | pet |
| qu | /k//w/ | quit |
| r | /r/ | red |
| s | /s/ & /z/ | sit & hens |
| sh | /ʃ/ | she |
| ss | /s/ | miss |
| t | /t/ | tea |
| th | /θ/ & /ð/ | both & this |
| u | /ʌ/ or /ʊ/ | cup** |
| v | /v/ | vet |
| w | /w/ | wet |
| x | /k//s/ | mix |
| y | /j/ | yes |
| z | /z/ | zip |
| zz | /z/ | buzz |

* In some regions the 'oo' in book is the same phoneme as in room. The phoneme intended here is the same as the 'u' in put. **All regional pronunciations are acceptable.

Section 1 will contain words with the phonological/orthographical configurations as defined in Table 1 below. In the table, the following codes are used:

| Phonological | | Orthographical | |
|---|---|---|---|
| C = consonant or consonant digraph[1] | | C = consonant | CC = consonant digraph[1] |
| V = vowel or vowel digraph[2] | | V = vowel | VV = vowel digraph[2] |
| | | | VCV = split digraph[3] |

**Table 1**

| Phonological representation | Orthographical representation | Real word examples |
|---|---|---|
| C   V   C | C   V   C | cat |
| | CC   V   C | this |
| | C   V   CC | mash |
| | C   VV   C | moon |
| | CC   V   CC | shall |
| | CC   VV   C | charm |
| V   C   C | V   C   C | act |
| C   C   V   C | C   C   V   C | pram |
| | C   C   VV   C | greed |
| | C   C   V   CC | clock |
| C   V   C   C | C   V   C   C | bend |
| | C   VV   C   C | feeds |
| | CC   V   C   C | chips |

[1] A consonant digraph contains two consonant letters to represent a single phoneme (for example, 'sh' or 'ck'). We have also designated 'qu' as a special case consonant digraph despite the fact that its pronunciation contains two phonemes.

[2] A vowel digraph may contain two vowel letters (such as 'oi' or 'ee'). So that this table is easy to interpret, we have included r-controlled digraphs (such as 'er' and 'ur') in the over-arching category of vowel digraphs.

[3] A split digraph will contain a vowel letter followed by a consonant letter and then an 'e'.

Section 1 will contain a total of 20 words, eight real and 12 pseudo-words with the following structures.

- 3 × CVC (orthographical) pseudo-words (3 words);

- 1 × VCC (orthographical) pseudo-word (1 word);

- 4 × real words and 4 × pseudo-words for the five remaining orthographical representations of the CVC phonological representation (i.e. all excluding CVC orthographical representation) listed above (8 words);

- 2 × real words and 2 × pseudo-words for the three orthographical representations of the CCVC phonological representation listed above (4 words); and

- 2 × real words and 2 × pseudo-words for the three orthographical representations of the CVCC phonological representation listed above (4 words).

The pseudo-words in each section will be grouped together.

## 3.2.2 Section 2

This section will contain words using the following grapheme-phoneme correspondences (those in bold were not included in section 1).

| Grapheme | Phoneme | Example word |
|----------|---------|--------------|
| a | /æ/ & **/ɑ:/** | cat & **father** |
| **a-e** | /eɪ/ | **came** |
| **ai** | /eɪ/ | **bait** |
| **air** | /ɛə/ | **air** |
| ar | /ɑ:/ | arm |
| **au** | **/ɔ:/** | **launch** |
| **aw** | **/ɔ:/** | **raw** |
| **ay** | **/eɪ/** | **say** |
| b | /b/ | bad |
| c | /k/ & **/s/** | cat & **cell** |
| ch | /tʃ/ & **/k/** & **/ʃ/** | check & **school** & **chef** |
| ck | /k/ | check |
| d | /d/ | dog |
| e | /ɛ/ & **/i:/** | hen & **she** |
| **ea** | **/ɛ/** & **/i:/** | **head*** & **bead** |
| ee | /i:/ | see |

| Grapheme | Phoneme | Example word |
|:---:|:---:|:---:|
| **e-e** | /iː/ | **scheme** |
| er | /ɜː/ & /ə/ | **fern** & **farmer** |
| **ew** | /uː/ | **stew** |
| f | /f/ | if |
| ff | /f/ | puff |
| g | /g/ & **/dʒ/** | gum & **gem** |
| h | /h/ | how |
| i | /ɪ/ & **/aɪ/** | hit & **mind** |
| **i-e** | /aɪ/ | fine |
| ie | **/aɪ/** & **/iː/** | **pie** & **chief** |
| **igh** | /aɪ/ | **high** |
| **ir** | /ɜː/ | **girl** |
| j | /dʒ/ | jug |
| k | /k/ | key |
| l | /l/ | leg |
| ll | /l/ | hill |
| m | /m/ | man |
| n | /n/ | man |
| ng | /ŋ/ | sing |
| o | /ɒ/ & **/əʊ/** | hot & **cold** |
| **oa** | /əʊ/ | **boat** |
| **o-e** | /əʊ/ | **cone** |
| oi | /ɔɪ/ | coin |
| oo | /uː/ & /ʊ/ | room & book** |
| or | /ɔː/ | born |
| **ou** | **/aʊ/ & /uː/ & /ʊ/ & /əʊ/** | **out** & **you** & **mould** |
| **ow** | **/aʊ/ & /əʊ/** | **cow** & **blow** |

| Grapheme | Phoneme | Example word |
|:---:|:---:|:---:|
| **oy** | **/ɔɪ/** | **boy** |
| p | /p/ | pet |
| **ph** | **/f/** | **photo** |
| qu | /k//w/ | quit |
| r | /r/ | red |
| s | /s/ & **/z/** | sit & **hens** |
| sh | /ʃ/ | she |
| ss | /s/ | miss |
| t | /t/ | tea |
| th | /θ/ & /ð/ | both & this |
| u | /ʌ/ or /ʊ/ & **/j//u:/** | cup*** & **unit** |
| **ue** | **/u:/ & /j//u:/** | **blue** & **cue** |
| **u-e** | **/u:/ & /j//u:/** | **brute** & **huge** |
| **ur** | **/ɜ:/** | **turn** |
| v | /v/ | vet |
| w | /w/ | wet |
| **wh** | **/w/** | **when** |
| x | /k//s/ | mix |
| y | /j/ | yes |
| z | /z/ | zip |
| zz | /z/ | buzz |

*In some regions the 'ea' in head is the same phoneme as in bead. The phoneme intended here is the same as the 'e' in bed.
** In some regions the 'oo' in book is the same phoneme as in room. The phoneme intended here is the same as the 'u' in put.
***All regional pronunciations are acceptable.

This section will contain one-syllable words with the phonological/orthographical configurations as defined in Table 2 below using the same codes as in section 1 plus VVV for a vowel trigraph.

The orthographical configurations CVVC, CCVVC and CVVCC are repeated in the section to assess the additional vowel digraphs included in section 2.

**Table 2**

| Phonological representation | Orthographical representation | Real word examples |
|---|---|---|
| C V | C VV | say |
| C V | C VVV | lair |
| C V | CC VVV | thigh |
| C V C | C VV C | head |
| C V C | C V C V | mate |
| C V C | CC V C V | shame |
| C C V C | C C V C V | stove |
| C C V C | C C VV C | bread |
| C C V C | CC C V CC | thrush |
| C V C C | C VV C C | joust |
| C C V C C | C C V C C | clump |
| C C V C C | C C VV C C | clowns |
| C C V C C | CC C V C C | shrink |
| C C C V | C C C VV | spree |
| C C C V C | C C C V C | scrum |
| C C C V C | C C C V C V | scrape |
| C C C V C C | C C C V C C | strict |

The two-syllable words will contain a variety of phonological/orthographical configurations with between five and eight letters.

Section 2 will contain a total of 20 words, 12 real and eight pseudo-words with the following structures.

- 2 × real words and 2 × pseudo-words for the orthographical representation of the CVC phonological representations listed above (4 words);

- 2 × real words and 2 × pseudo-words for the four orthographical representations of the CVCC and CCVC phonological representations and the three orthographical representations of the CV phonological representation listed above (4 words);

- 2 × real words and 2 × pseudo-words for the three orthographical representations of the CCVCC phonological representations listed above (4 words);

- 2 × real words and 2 × pseudo-words for the four orthographical representations of the CCCV, CCCVC and CCCVCC phonological representations listed above (4 words); and

- 4 × two-syllable real words with different orthographical representations, one with five letters, one with six letters, one with seven letters and one with eight letters (4 words).

# 3.3 Cognitive domain

To respond correctly to the items in the Year 1 phonics screening check, children need to be familiar with the content domain being assessed, but they also need to draw on a range of cognitive skills. Describing these skills plays a crucial role in the development of any assessment, since they are vital in ensuring that the check covers the appropriate range of cognitive skills across the content domains already outlined.

The first domain, 'knowing', covers the facts, concepts, and procedures children need to know. The second, 'applying', focuses on the ability of children to apply knowledge and conceptual understanding to read words.

## Knowing

The ability to decode phonically depends on knowledge of and familiarity with grapheme-phoneme correspondences (including multi-letter graphemes) and knowing how to blend phonemes into words. This knowledge is dependent on the children having secure knowledge of the letters of the alphabet; having an ability to parse letter strings into appropriately sized graphemes; and being phonemically aware. Knowledge of the alphabet includes recognising each letter as a discrete visual identity and its own sound value. Phonemic awareness is defined as the explicit ability to reflect upon and manipulate the sounds in words. Specific knowledge of grapheme-phoneme correspondences (and phoneme-grapheme correspondences) is dependent on being able to map. The more relevant knowledge a child is able to recall and the wider the range of decoding rules he or she has understood, the greater the potential for reading a wider range of phonically decodable words. Children need to be able to easily recall the basic facts and conventions of phonic decoding in order to read unfamiliar words.

## Applying

The applying domain involves the application of knowledge to a range of phonically decodable words in order to be able to read fluently. Children should have confidence in blending using appropriate pronunciations of phonemes for the given context. In relation to the phonics screening check, the context is the letter string of the word or pseudo-word to be read. They should be able to parse the sequence of letters to generate the correct sequence of phonemes, which they then blend into the correct word or pseudo-word.

# 4. Item specification

This section provides more detail on the nature of each item, how difficulty will be defined and how items will be reviewed before inclusion in a check.

## 4.1 Item structure

As described in section 3.2, the words in the check will follow set orthographical configurations. This section provides additional details for each word type in relation to form and structure. All word configuration representations in this section (i.e. CVC, CCVVC) are orthographic rather than phonological.

All real words will be checked for frequency in the Children's Printed Word Database maintained by the Department of Psychology, University of Essex. All real words in the check will be found in the database and the check will contain between 40 per cent and 60 per cent of real words that are low frequency, defined as fewer than 20 occurrences per million words in the database.

In addition, between 40 per cent and 60 per cent of the words will have a low neighbourhood size (N), defined as N<5. Neighbourhood sizes have been derived from Medler, D.A., & Binder, J.R. (2005).

No words used in the check will contain unigrams (single letters) in word positions where they are unusual or impossible in English (for example, words will not end with a 'j' or begin with an 'x') Similarly, no words will contain bigrams (sequences of two letters) in word positions where they are unusual or impossible in English (for example, words will not end with 'kt' or begin with 'mn'). In each orthographic word type, there will be a mixture of high and medium frequency bigrams. Appendix A provides further details of acceptable and non-acceptable unigrams and bigrams, as well as details of the set of consonant strings selected for use at the beginning or end of words.

### 4.1.1 CVC words

The three CVC words in section 1 of the check will all be pseudo-words and will contain only the graphemes listed in section 3.2.1.

### 4.1.2 CCVC words

There will be at most one real and one pseudo CCVC word in section 1 of the check, containing only the graphemes listed in section 3.2.1.

### 4.1.3 CVCC words

There will be at most one real and one pseudo CVCC word in section 1 of the check, containing only the graphemes listed in section 3.2.1.

### 4.1.4 CVVC words

There will be at most one real and one pseudo CVVC word in section 1 of the check, containing only the graphemes listed in section 3.2.1 and at most two CVVC words (one real and one pseudo) in section 2 of the check, containing the graphemes listed in section 3.2.2.

### 4.1.5 CCVCC words

There will be at most one real and one pseudo CCVCC word in section 1 of the check, containing only the graphemes listed in section 3.2.1.

### 4.1.6 CC VVC words

There will be at most one real and one pseudo CC VVC word in section 1 of the check, containing only the graphemes listed in section 3.2.1.

### 4.1.7 VCC words

There will be one pseudo VCC word in section 1 of the check, containing only the graphemes listed in section 3.2.1.

### 4.1.8 CCVC words

There will be at most one real and one pseudo CCVC word in section 1 of the check, containing only the graphemes listed in section 3.2.1.

### 4.1.9 CCVVC words

There will be at most one real and one pseudo CCVVC word in section 1 of the check, containing only the graphemes listed in section 3.2.1 and at most two CCVVC words (one real and one pseudo) in section 2 of the check, containing the graphemes listed in section 3.2.2.

### 4.1.10 CCVCC words

There will be at most one real and one pseudo CCVCC word in section 1 of the check, containing only the graphemes listed in section 3.2.1.

### 4.1.11 CVCC words

There will be at most one real and one pseudo CVCC word in section 1 of the check, containing only the graphemes listed in section 3.2.1.

### 4.1.12 CVVCC words

There will be at most one real and one pseudo CVVCC word in section 1 of the check, containing only the graphemes listed in section 3.2.1 and at most two CVVCC words (one real and one pseudo) in section 2 of the check, containing the graphemes listed in section 3.2.2.

### 4.1.13 CCVCC words

There will be at most one real and one pseudo CCVCC word in section 1 of the check, containing only the graphemes listed in section 3.2.1.

### 4.1.14 CVV words

There will be at most one real and one pseudo CVV word in section 2 of the check, containing only the graphemes listed in section 3.2.2.

### 4.1.15 CVVV words

There will be at most one real and one pseudo CVVV word in section 2 of the check, containing only the graphemes listed in section 3.2.2.

### 4.1.16 CC VVV words

There will be at most one real and one pseudo CC VVV word in section 2 of the check, containing only the graphemes listed in section 3.2.2.

### 4.1.17 CVCV words

There will be one real and one pseudo CVCV word in section 2 of the check, containing only the graphemes listed in section 3.2.2.

### 4.1.18 CC VCV words

There will be one real and one pseudo CC VCV word in section 2 of the check, containing only the graphemes listed in section 3.2.2.

### 4.1.19 CC VCV words

There will be at most one real and one pseudo CC VCV word in section 2 of the check, containing only the graphemes listed in section 3.2.2.

### 4.1.20 CCVCC words

There will be at most one real and one pseudo CCVCC word in section 2 of the check, containing only the graphemes listed in section 3.2.2.

### 4.1.21 CCCVCC words

There will be at most one real and one pseudo CCCVCC word in section 2 of the check, containing only the graphemes listed in section 3.2.2.

### 4.1.22 CCCVCC

There will be at most one real and one pseudo CCCVCC word in section 2 of the check, containing only the graphemes listed in section 3.2.2.

### 4.1.23 CCCVC words

There will be at most one real and one pseudo CCCVC word in section 2 of the check, containing only the graphemes listed in section 3.2.2.

### 4.1.24 CCCVV words

There will be at most one real and one pseudo CCCVV word in section 2 of the check, containing only the graphemes listed in section 3.2.2.

### 4.1.25 CCCVCV words

There will be at most one real and one pseudo CCCVCV word in section 2 of the check, containing only the graphemes listed in section 3.2.2.

### 4.1.26 CCCVCC words

There will be at most one real and one pseudo CCCVCC word in section 2 of the check, containing only the graphemes listed in section 3.2.2.

### 4.1.27 Two-syllable words

There will be four two-syllable words in the check which will have a range of orthographic structures and will contain a maximum of eight letters. There will be no compound words.

## 4.2 Item piloting and item difficulty

Before an item is included in the phonics screening check, it will undergo formal trialling. In the pilot year, a total of 360 items were trialled in the proportions needed for the phonics screening check (for example, three out of every 40 items were CVC pseudo-words). The design for the pilot provided approximately 1,000 observations for each item in a crossover or cartwheel design with 18 forms.

During the pilot, a variety of item response theory (IRT) models were used to analyse the data from the pilot and calculate difficulty and discrimination for each item on a common scale to determine the most appropriate items for selection for the phonics screening check.

## 4.3 Item review

Items developed for inclusion in the phonics screening check will be reviewed to ensure they are suitable.

### 4.3.1 Real words

Each real word will be reviewed to ensure it:

- meets the requirements of the specification
- is phonically decodable, taking into account regional accents
- does not have an inappropriate meaning colloquially or in a regional dialect.

### 4.3.2 Pseudo-words

Each pseudo-word will be reviewed to ensure it:

- meets the requirements of the specification
- is phonically decodable, taking into account regional accents
- is not a homophone in English
- is not a homophone for an inappropriate word in another language covered by the review (common words in other languages should also be flagged although it may still be deemed appropriate to include these words)
- is not used colloquially or in a regional dialect.

# 5. Scoring

The phonics screen check should be scored by the teacher as they work through the check. For each word, the teacher will record whether the child read the word correctly or not bearing in mind the following points:

- Children may sound out phonemes before blending but do not have to. If a child sounds out the phonemes but does not blend the word, they must not be prompted to do so.

- Children may elongate phonemes as long as they are blended to form the word. However, if children leave gaps between phonemes and do not blend them, this must be scored as incorrect.

- Alternative pronunciations must be considered when deciding whether a response is correct. For real words, inappropriate grapheme-phoneme correspondences should not be marked correct (for example, reading 'blow' to rhyme with 'cow' would be incorrect). However, alternative pronunciations of graphemes will be allowed in pseudo-words.

- A child's accent should be taken into account when deciding whether a response is acceptable. There should be no bias in favour of children with a particular accent.

- Any pronunciation difficulties for a child should be taken into account when deciding whether a response is acceptable (for example, a child who is unable to form the 'th' sound and instead says 'fw' should have this scored correct).

- If a child makes an incorrect attempt and then corrects themselves, this should be marked as correct as the child has shown the ability to decode. However, children should not be prompted to 'have another go'. If a child makes several attempts at a word, the final attempt should be scored, even if this is incorrect and a previous attempt had been correct.

- The teacher should not indicate whether a child has decoded a word correctly or incorrectly during the administration of the screening check but may offer encouragement or support to ensure they remain focused on the task.

- Children should be given as long as necessary to respond to a word, although in most cases, 10 seconds should be sufficient. The teacher should decide when it is appropriate to tell the child to move onto the next word, taking care not to try to move the child on if they are still trying to decode the word.

Further information is provided to schools in the Check Administrators Guide and training materials.

# Appendix A

## Constrained unigrams

The following unigrams will not be used at the start of words in the check:

- x

The following unigrams will not be used at the end of one-syllable words in the check:

- c
- j
- q
- v
- y

The following unigrams will not be used at the end of two-syllable words in the check:

- a
- i
- j
- o
- q
- u
- v

## Constrained bigrams

The following bigrams will not be used in one-syllable words in the check:

| aa | bh | bx | cm | cz | dl | dz | fg |
|----|----|----|----|----|----|----|----|
| ae | bj | by | cn | db | dm | ei | fh |
| aj | bk | bz | cp | dc | dn | ej | fj |
| ao | bm | cb | cq | dd | dp | eo | fk |
| aq | bn | cc | cs | df | dq | eq | fm |
| bc | bp | cd | cv | dg | dt | ey | fn |
| bd | bq | cf | cw | dh | dv | fb | fp |
| bf | bv | cg | cx | dj | dx | fc | fq |
| bg | bw | cj | cy | dk | dy | fd | fv |
| fw | hl | jw | lr | nj | py | rh | tn |

| fx | hm | jx | lv | nl | pz | rj | tp |
|----|----|----|----|----|----|----|----|
| fy | hn | jy | lw | nm | qa | rl | tq |
| fz | hp | jz | lx | nn | qb | rq | tv |
| gb | hq | kb | ly | np | qc | rv | tx |
| gc | hs | kc | lz | nq | qd | rw | ty |
| gd | hv | kd | mb | nr | qe | rx | tz |
| gf | hw | kf | mc | nv | qf | ry | uh |
| gg | hx | kg | md | nw | qg | rz | uj |
| gj | hy | kh | mf | nx | qh | sb | uq |
| gk | hz | kj | mg | ny | qi | sd | uu |
| gm | jb | kk | mh | nz | qj | sf | uy |
| gn | jc | kl | mj | oj | qk | sg | vb |
| gp | jd | km | mk | oq | ql | sj | vc |
| gq | jf | kn | ml | pb | qm | sr | vd |
| gt | jg | kp | mn | pc | qn | sv | vf |
| gv | jh | kq | mq | pd | qo | sx | vg |
| gw | jj | kt | mr | pf | qp | sy | vh |
| gx | jk | kv | mt | pg | qq | sz | vj |
| gz | jl | kw | mv | pj | qr | tb | vk |
| hb | jm | kx | mw | pk | qs | tc | vl |
| hc | jn | ky | mx | pm | qt | td | vm |
| hd | jp | kz | my | pn | qv | tf | vn |
| hf | jq | lc | mz | pp | qw | tg | vp |
| hg | jr | lg | nb | pq | qx | tj | vq |
| hh | js | lj | nc | pv | qy | tk | vr |
| hj | jt | ln | nf | pw | qz | tl | vs |
| hk | jv | lq | nh | px | rf | tm | vt |
| vv | wm | xc | xo | yb | yq | zf | zt |
| vw | wp | xd | xp | yc | yr | zg | zv |

| vx | wq | xe | xq | yd | ys | zh | zw |
|----|----|----|----|----|----|----|----|
| vy | wr | xf | xr | yf | yt | zj | zx |
| vz | wt | xg | xs | yg | yv | zk | zy |
| wb | wv | xh | xt | yh | yw | zl | zz |
| wc | ww | xi | xu | yj | yx | zm | |
| wf | wx | xj | xv | yk | yy | zn | |
| wg | wy | xk | xw | yl | yz | zp | |
| wj | wz | xl | xx | ym | zb | zq | |
| wk | xa | xm | xy | yn | zc | zr | |
| wl | xb | xn | xz | yp | zd | zs | |

The following bigrams will not be used at the start of words in the check:

| bb | ks | mp | rg |
|----|----|----|----|
| ck | lb | ms | rk |
| cs | ld | nd | rm |
| ct | lf | ng | rn |
| ds | lk | nk | rp |
| ff | ll | ns | rr |
| fs | lm | nt | rs |
| ft | lp | pt | rt |
| gh | ls | rb | ss |
| gs | lt | rc | ts |
| ht | mm | rd | ws |

The following bigrams will not be used at the end of one-syllable words in the check:

| qu | wh |
|----|----|

The following bigrams will not be used at the end of two-syllable words in the check:

| | | |
|---|---|---|
| ai | ie | ou |
| ar | oa | qu |
| au | oe | ur |
| ea | oi | wh |
| ew | oo | |

The following VCV trigrams will not be used in split digraph words:

| | | | | |
|---|---|---|---|---|
| ahe | aje | aqe | are | axe |
| ehe | eje | eqe | ere | exe |
| ihe | ije | iqe | ire | ixe |
| ohe | oje | oqe | ore | oxe |
| uhe | uje | uqe | ure | uxe |

The following will be the only three-consonant strings including a consonant digraph in the check (CCC):

| |
|---|
| shr |
| thr |

The following will be the only three-consonant strings including three consonants in the check (CCC):

| |
|---|
| scr |
| spl |
| spr |
| str |

The following table shows the bigram frequencies to be used for one-syllable words. These are adapted from Jones, M and Mewhort, D (2004).

**Successor ↑ / Predecessor →**

| Successor \ Predecessor | a | b | c | d | e | f | g | h | i | j | k | l | m | n | o | p | q | r | s | t | u | v | w | x | y | z |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| z | M | L | M | M | M | L | L | L | H | L | L | M | L | M | M | L | L | M | M | M | M | L | L | L | M | M |
| y | H | H | M | M | H | M | M | M | L | H | H | H | M | M | L | H | M | H | M | M | M | M | M | L | L | M |
| x | M | L | L | L | H | L | L | L | M | L | L | L | L | M | M | L | L | M | L | L | M | L | L | M | L | L |
| w | H | M | L | M | H | L | M | M | M | L | M | M | L | M | H | M | L | M | M | H | M | L | L | M | M | M |
| v | H | M | L | M | H | L | L | M | H | L | M | M | L | H | H | L | L | H | M | M | M | L | L | L | M | L |
| u | H | H | H | H | M | H | H | H | M | H | M | H | H | H | H | H | H | H | H | H | M | M | L | M | M | M |
| t | H | M | H | M | H | H | M | H | H | L | M | H | M | H | H | H | L | H | H | H | H | L | M | M | M | L |
| s | H | H | M | H | H | M | H | M | H | L | H | H | H | H | H | H | L | H | H | H | H | M | H | L | H | L |
| r | H | H | H | H | H | H | H | H | H | L | M | M | M | H | H | L | H | M | H | H | H | M | M | L | M | L |
| q | M | L | M | M | M | L | L | M | M | L | L | L | L | M | M | L | L | M | M | L | M | L | L | L | L | L |
| p | H | M | L | M | H | L | M | M | H | L | M | M | H | M | H | H | L | H | H | M | H | L | M | H | M | L |
| o | M | H | H | H | H | H | H | H | H | H | M | H | H | H | H | L | H | H | H | M | H | H | M | H | M | M |
| n | H | M | L | M | H | M | H | M | H | L | M | M | M | H | H | M | L | H | M | M | H | M | H | L | M | L |
| m | H | M | L | M | H | M | M | H | L | M | M | H | M | H | M | L | H | H | M | L | M | L | M | L | M | M |
| l | H | H | H | M | H | H | M | M | H | L | M | M | H | H | H | L | H | H | H | H | M | M | M | M | M | M |
| k | H | L | H | M | M | M | L | M | H | L | M | M | L | H | H | M | L | H | H | M | M | L | M | L | M | M |
| j | M | M | L | M | M | L | L | L | M | L | L | L | L | M | M | L | L | M | L | L | M | L | L | L | L | L |
| i | H | H | H | H | H | H | H | H | M | M | H | H | H | H | H | M | H | H | H | H | H | H | H | M | M | M |
| h | M | M | M | M | M | L | H | M | L | M | M | M | M | H | L | M | H | H | M | L | H | M | M | M | M | M |
| g | H | L | L | M | H | M | M | M | H | L | M | M | L | H | H | M | L | H | M | M | H | L | L | L | M | M |
| f | H | L | L | M | H | M | M | H | L | H | M | M | H | H | M | L | M | M | M | M | M | L | M | M | M | L |
| e | M | H | H | H | H | H | H | H | H | M | H | H | H | H | M | H | L | H | H | H | H | H | H | M | H | H |
| d | H | M | M | H | H | L | M | H | H | L | M | H | M | H | H | M | L | H | M | M | H | L | M | L | M | L |
| c | H | M | H | M | H | L | L | M | H | L | L | M | M | H | H | M | L | H | H | M | M | L | H | M | M | L |
| b | H | M | L | M | H | L | M | M | H | L | M | M | H | M | H | M | L | M | M | H | M | L | M | L | M | M |
| a | M | H | H | H | H | H | H | H | H | M | M | H | H | H | H | H | L | H | H | H | H | H | H | M | M | M |

# About this publication

## Who is it for?

This document is aimed primarily at those responsible for developing the phonics screening check, providing detailed information to ensure an appropriate check is developed.

The document may also be of interest to schools with children in Year 1 and other education professionals.

## What is it for?

This document provides the framework for the development of the Year 1 phonics screening check, including the check specification and the item specification.

## References

Jones, M.N. and Mewhort, D.J.K; *Case-sensitive letter and bigram frequency counts from large-scale English copora* (2004). Queen's University, Kingston, Ontario, Canada.

Masterson, J., Stuart, M., Dixon, M. & Lovejoy, S; *Children's Printed Word Database: Continuities and changes over time in children's early reading vocabulary. British Journal of Psychology* (2010). 101(2), 221-242.

Medler, D.A. and Binder, *J.R; MCWord: An On-Line Orthographic Database of the English Language.* (2005). http://www.neuro.mcw.edu/mcword/

## Related Materials

Year 1 phonics screening check Assessment and Reporting Arrangements: STA/11/5688

Sample materials: STA/11/5736

## For more copies

The phonics screening check *Assessment framework* can be accessed on the STA Orderline at http://orderline.education.gov.uk. Search using the PDF product code reference STA/17/7947/e.