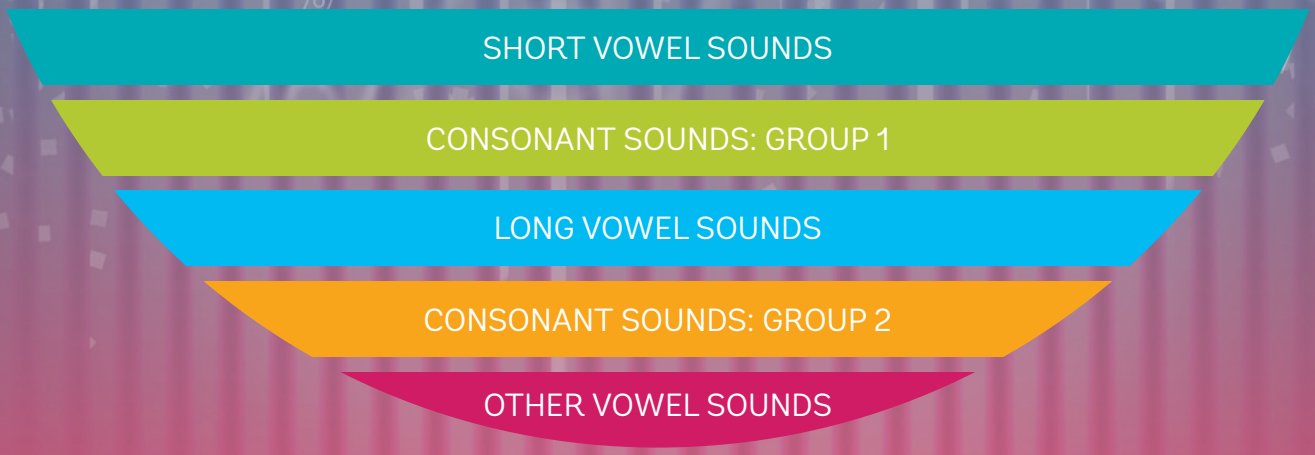
Catch Up Your Code

Teacher's Resource Book

SAMPLE (NZ/Aus edition)



Joy Allcock

Foreword by Professor John Hattie

SECOND EDITION

Foreword

by John Hattie

Laureate Professor
Melbourne Graduate School of Education

I have known Joy Allcock for some decades as the 'Queen' of teaching the skills for reading and spelling. Her resources and advocacy have kept the spotlight on teaching the prerequisite skills, while still too many claim that spelling and reading are somehow 'caught' by the mere exposure to text.

As she has contended, there are specific known skills that are precursors to reading and spelling that can and should be taught. Once a student has developed some mastery, then a virtuous circle can commence of using these skills for increased proficiency in reading, spelling and comprehension.

There have been two meta-analyses of the impact of teaching these skills on spelling.

Graham and Santangelo[1] reviewed 53 studies based on 6,237 students and found an overall effect size of 0.54. Perhaps more fascinating, these gains were maintained over time and generalised to spelling when writing. The deliberate teaching of the skills of spelling far exceeded the spelling is 'caught' claims (d = 0.43), and formal spelling instruction resulted in improved phonological awareness and improved reading skills.

Lin[2] located 91 studies based on 9,341 students and found a mean effect size of 0.58, indicating that systematic code-based literacy instruction is more effective at improving spelling outcomes than non-code-based or less systematic code-based instruction. Lin concluded that 'the implication of these findings is that spelling, like reading, depends on code-based linguistic knowledge, and that most interventions that target some aspect of code-based knowledge are superior to the status quo' (p. 77).

Similarly, there have been 118 meta-analyses on the specific teaching of reading skills, based on over a million students, with an average effect of 0.45 (see table below). A prerequisite set of skills for learning to read includes decoding and segmenting words into phonemes. So, the more children are exposed and systematically taught to listen to sounds, the more effective they become at spelling, reading and comprehension.

1 Graham, S., & Santangelo, T. (2014). *Does spelling instruction make students better spellers, readers, and writers? A meta-analytic review*. Reading and Writing, 27(9), 1703–1743. https://doi.org/10.1007/s11145-014-9517-0

2 Lin, J. (2013). *The effects of code-based literacy interventions on spelling achievement: A meta-analysis*. City University of New York, ProQuest Dissertations Publishing, 2013. 3589768.

Reading programmes	No. meta-analyses	No. studies	No. students	No. effects	d (effect size)	se (standard error)
Visual perception programmes	6	683	379,400	5,035	0.55	0.03
Vocabulary programmes	13	497	11,531	1,254	0.63	0.11
Phonics instruction	29	1,102	79,368	7,906	0.60	0.16
Sentence-combining programmes	2	35		40	0.15	0.09
Repeated reading programmes	4	106	3,942	217	0.75	0.08
Music-based reading programmes	3	88	6,674	168	0.30	
Comprehensive reading programmes	41	1,607	136,634	5,110	0.54	0.10
Whole language approach	4	64	630	197	0.06	0.06
Exposure to reading	13	466	395,843	1,484	0.43	0.09
Reading Recovery	3	68	5,685	1,496	0.53	0.09
Total/Average	*118*	*4,716*	*1,019,707*	*22,907*	*0.45*	*0.09*

Source: https://www.visiblelearningmetax.com

Marie Clay also argued that the ability to listen is a core skill for learning to read and spell. However, English has many inconsistencies and vagaries that make listening to sounds difficult for many children. As Allcock comments, there is also the diversity of the alphabetic code to contend with — most sounds can be written in more than one way, and most letters and spelling patterns can be pronounced in different ways.

So how can teachers unravel these mysteries and teach recognition, decoding and letter-sound knowledge?

By using this book!

Allcock adds to her already weighty set of wonderful resources to make teachers' lives more efficient and effective. The sound lessons are complemented by two appendices that outline the major phonological and phonemic awareness skills and provide strategies for reading and writing unfamiliar words.

'/n/ /j/ /oy/!'

John Hattie
Laureate Professor
Melbourne Graduate School of Education

Author's note

I have worked for more than 20 years with students from school entry to secondary level. Over that time I have met many students and teachers who find written English difficult to understand. What I have learned is that it is not intelligence, language skills or motivation that determines whether someone can master the English language — it is the nature of instruction.

This book focuses on a foundational skill for mastering written English — knowledge of the diversity of the alphabetic code. Typically, knowledge of the alphabetic code is taught in phonics programmes in the first two to three years at school. The alphabetic code of English is highly complex and there is a lot to learn about it — far more than can be taught to very young students in the early years. Instruction needs to continue past the early years to ensure older students gain a deepening understanding of how the code works.

I have used the method in this book for 'catching up' older students' code knowledge for many years. It is very successful. I wrote *Catch Up Your Code* for senior classes in the *Shine* Literacy Project. The lessons make it easy for teachers to provide this essential instruction to the whole class, to small groups or to individuals, laying the foundation for building more knowledge about written English.

Code knowledge is the bottom line — the foundation for learning to read and spell efficiently. You can close the gaps in students' knowledge in just 10 minutes a day by using the lessons in this book.

Joy Allcock, M.Ed. (Hons.)

Contents

Note: Only the practice activity for the **/sh/** sound is included in this sample.

Note: Only the pages marked with * are included in this sample.

Why is code knowledge important?

Learning to read and write

Written languages fall broadly into two types.

1. Logographic languages, which use visual images to represent words

For example: Chinese uses characters to represent words.

狗
dog

In order to read or write these characters, the image/character must be seen and committed to memory. Characters that have not been memorised cannot be read or written.

2. Phonologic languages, which use alphabet letters to represent the sounds that make up words

Some alphabetic languages have simple sound-letter relationships — most sounds have one way of being written (a simple code).

English has a complex code:

- Sounds can be represented by one, two, three or four letters.
  /k/ /a/ /t/ **/g/ /ō/ /t/** **/n/ /ī/ /t/** **/th/ /r/ /o͞o/**
  c a t ***g oa t*** ***n igh t*** ***th r ough***
- Most sounds can be written in more than one way.
  /ā/ — ***a****pron*, *c****a****m****e***, *pl****ay***, *th****ey***, ***eigh****t*, *str****aigh****t*, *gr****ea****t*, *p****ai****nt*
  /sh/ — ***sh****ip*, ***ch****ef*, *ti****ss****ue*, *fa****shi****on*, *sta****ti****on*, *spe****ci****al*, *an****x****ious*, *mi****ss****ion*, *mousta****che***, ***s****ugar*, *ten****si****on*
- Many letters and letter patterns can be pronounced in different ways.
  ch — ***ch****urch* (**/ch/**) ***ch****ef* (**/sh/**) ***Ch****ristmas* (**/k/**)
  a — ***a****pple*, ***a****pron*, ***a****bout*, *w****a****ter*, *w****a****s*

Reading an alphabetic language

There are two strategies for reading alphabetic languages.

1. Whole word recognition

This involves memorising the image of the whole word and recognising it when it is seen again in print. Repeated exposure to words is necessary for this to be successful. Words that have not been seen before cannot be read this way. Sometimes readers use analogy (knowledge of another word that looks similar) to pronounce a word (*have* and *cave*), which may or may not give the correct pronunciation.

2. Use of the alphabetic code

Readers might use their knowledge of the alphabetic code in different ways. They might:

- Pronounce the initial letter in a word and predict a word that would fit the text.
- Pronounce spelling patterns they recognise (for example, rhyming patterns, suffixes).
- Pronounce the graphemes (written representations of sounds) from left to right through the word, blend the sounds together and say the word. An in-depth knowledge of the alphabetic code and phonemic awareness skills (blending skills) are necessary for this to be successful.

Words that have not been seen before can be read using these strategies.

Writing an alphabetic language

There are two strategies for writing alphabetic languages.

1. Word retrieval

The image of a previously seen word is retrieved and the letters are recorded in sequence. Sometimes the word is retrieved but the letters are recorded in the wrong order (*siad* for *said*, for example).

2. Sounding out

The word is broken into a sequence of sounds or sound chunks and the alphabetic code is used to record them. This may produce a word that sounds correct but looks wrong.

Correct English spelling is not possible using just sound-letter knowledge. It is also influenced by the meaning structure of the word and by rules and conventions that affect the choice of spelling patterns for sounds and words.

The alphabetic code of English

Many of the problems associated with learning to read and write English accurately occur because of the diversity of the alphabetic code and the fact that most sounds can be written in more than one way and most letters and spelling patterns can be pronounced in different ways.

Often students are expected to pick up how the alphabetic code works through exposure to written English. For many this is not enough — they need explicit instruction.

Once the relationships between sounds and the way they are written (the code) are known and can be recalled quickly, students will be able to use this knowledge when they read and spell unfamiliar words.

The impact of a lack of code knowledge on reading and writing

Students who have been at school for four years or more should have a deep and growing knowledge of the way the alphabetic code works. They need an understanding of the alphabetic principle — the knowledge that letters and combinations of letters represent the individual sounds in words — as well as some knowledge of the diversity of the alphabetic code. When students lack either of these key understandings, both reading and writing suffer.

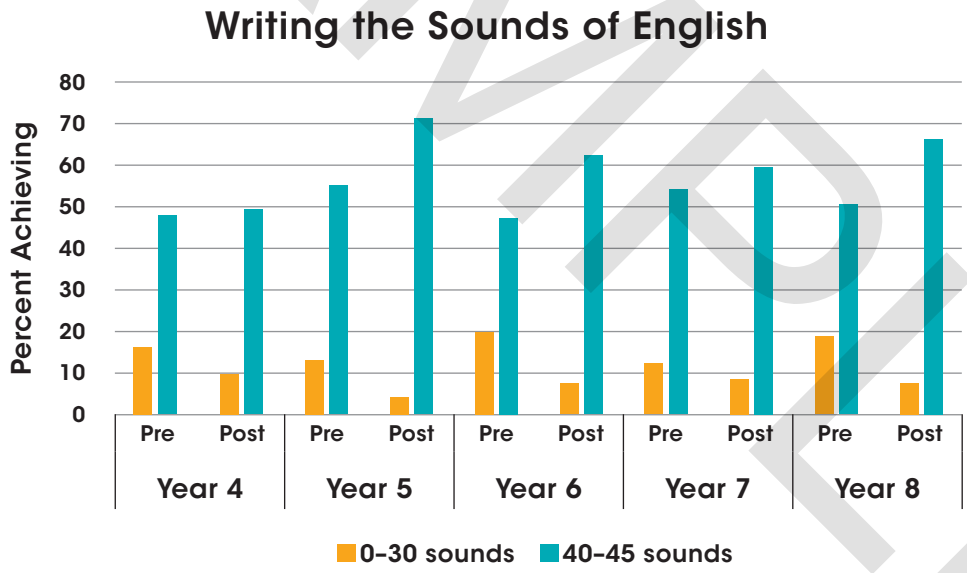
EFFECTS ON READING	EFFECTS ON WRITING
Inability to recognise graphemes, which limits skills for sounding out words not known by sight.	Limited strategies for sounding out and spelling words not known by sight.
Fluency and reading accuracy are negatively affected if words are not decoded efficiently.	Words chosen for writing are limited to those known by sight or those containing graphemes that are known.
Poor decoding impacts negatively on reading comprehension.	Reduced quantity and quality of writing. Writing skills may not match language knowledge.

The impact of using *Catch Up Your Code*

Writing every sound of English

After four years at school, students should be able to write all the sounds of English in at least one way. The following graph shows the results of more than 1,000 Year 4 to Year 8 students (age 8–13) who used *Catch Up Your Code* over the course of a single school term. The assessment included all the sounds of English plus the double sound patterns **/k/ /w/** (***qu***) and **/k/ /s/** (***x***).

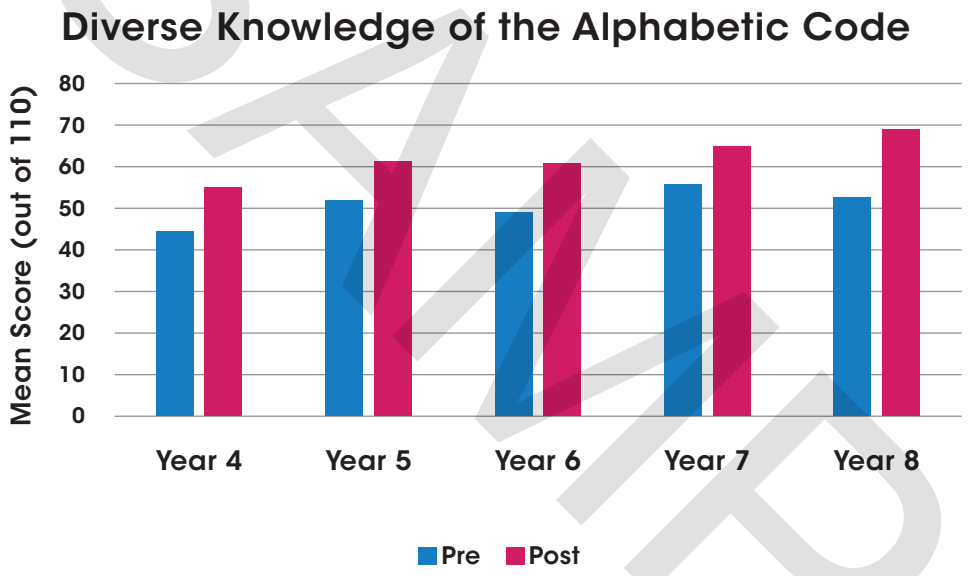
It is clear that explicit instruction using *Catch Up Your Code* improved results for students with the least knowledge of the alphabetic code, as well as for students with the most code knowledge. Between each pretest and posttest, the percentage of students who could write 30 sounds or fewer went down, and the percentage of students who could write 40 sounds or more went up.



Diverse knowledge of the alphabetic code

After four years at school, students should also know different ways of writing the sounds of English, and this knowledge should be accumulating as their exposure to written English increases across the years.

This graph shows the results for students who took the assessment twice in one year, with the effect size shifts they achieved (showing value added over the year) explained below. On the initial assessment, there was no particular pattern to the achievement across the years, which was surprising. In the second assessment, after explicit instruction, there is more of a pattern of increased achievement by year level, which is what would be expected as students' skills and knowledge of print increases.



Effect size shifts

The effect size shifts for all five groups show significant progress after explicit instruction.

Year Level	Effect Size Shift
4	0.7
5	0.6
6	0.7
7	0.6
8	1.0

Data analysis by beagle® software application (www.beagleinnovations.com)

Some broad guidelines for understanding effect size shifts:

0.15–0.45 — small to medium impact: up to two times the normal rate of learning

0.45–0.75 — medium to large impact: two to three times the normal rate of learning

0.75+ — large to very large impact: three-plus times the normal rate of learning

The data show that all five groups experienced **two to three-plus times the normal rate of learning** when they used *Catch Up Your Code*.

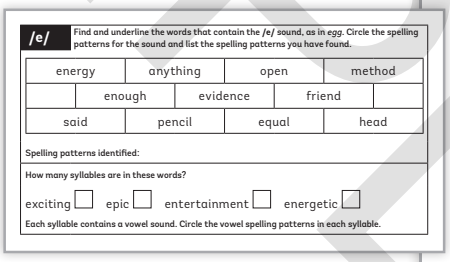
The structure of *Catch Up Your Code*

The lessons in *Catch Up Your Code* allow students to explore each sound, think about where that sound occurs in the word and then look at the different ways the sound can be written. They expose students to the critical concept that words are made up of sounds (knowledge of the alphabetic principle) and that sounds can be written in many different ways (knowledge of the alphabetic code).

Students use their own vocabulary knowledge to provide words containing the target sound. These words can be used to generate discussion. It is not expected that students will find every possible spelling pattern for the target sound, but they will discover that there is diversity in the way most sounds can be written. A strong foundation knowledge of the diversity of the alphabetic code will lay the foundation for teaching morphology and common, reliable spelling rules and conventions. This in-depth knowledge about the structure of written English will help students to decode and understand the meanings of words as they read and to spell words the way they are supposed to look as they write.

Lesson structure

Every lesson follows the same format, but the content changes with each new lesson. Lessons contain examples of words showing the most common spelling patterns for each sound, although students may not think of words with every pattern. Each lesson takes only 10 minutes.


/e/ Find and underline the words that contain the /e/ sound, as in *egg*. Circle the spelling patterns for the sound and list the spelling patterns you have found.

energy	anything	open	method
	enough	evidence	friend	
said	pencil	equal	head

Spelling patterns identified:

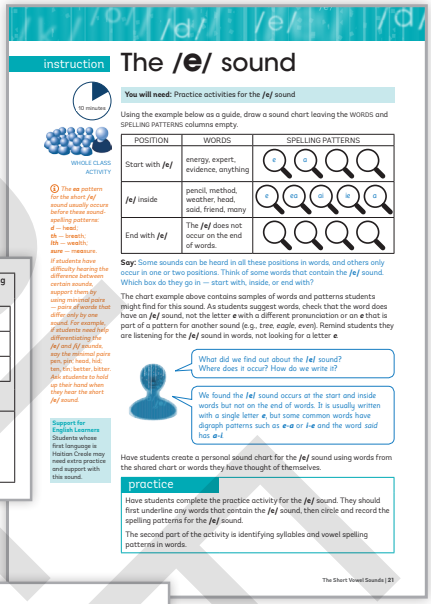
How many syllables are in these words?

exciting ☐ epic ☐ entertainment ☐ energetic ☐

Each syllable contains a vowel sound. Circle the vowel spelling patterns in each syllable.

There are short practice activities for each lesson to help embed the new learning.

In the ⓘ section there is information about relevant rules and conventions, which supports teachers to answer questions that may arise. It is not expected that students will be taught this information during the lesson. Additional support is included for sounds that may be difficult for English learners.


instruction

The /e/ sound

10 minutes

You will need: Practice activities for the /e/ sound

Using the example below as a guide, draw a sound chart leaving the WORDS and SPELLING PATTERNS columns empty.

POSITION	WORDS	SPELLING PATTERNS
Start with /e/	energy, expert, evidence, anything	e
/e/ inside	pencil, method, weather, head, said, friend, many	e ea ai a e
End with /e/	The /e/ does not occur on the end of words.	

WHOLE CLASS ACTIVITY

ⓘ *The **ea** pattern for the short /e/ sound usually occurs before these sound-spelling patterns: **d** — head; **th** — breath; **lth** — wealth; **sure** — measure.*

If students have difficulty hearing the difference between certain sounds, support them by using minimal pairs — pairs of words that differ only by one sound. For example, if students need help differentiating the /e/ and /i/ sounds, say the minimal pairs pen, pin; head, hid; ten, tin; better, bitter. Ask students to hold up their hand when they hear the short /e/ sound.

Say: Some sounds can be heard in all these positions in words, and others only occur in one or two positions. Think of some words that contain the /e/ sound. Which box do they go in — start with, inside, or end with?

The chart example above contains samples of words and patterns students might find for this sound. As students suggest words, check that the word does have an /e/ sound, not the letter **e** with a different pronunciation or an **e** that is part of a pattern for another sound (e.g., *tree*, *eagle*, *even*). Remind students they are listening for the /e/ sound in words, not looking for a letter **e**.

What did we find out about the /e/ sound? Where does it occur? How do we write it?

We found the /e/ sound occurs at the start and inside words but not on the end of words. It is usually written with a single letter **e**, but some common words have digraph patterns such as **e-a** or **i-e** and the word *said* has **a-i**.

Support for English Learners Students whose first language is Haitian Creole may need extra practice and support with this sound.

Have students create a personal sound chart for the /e/ sound using words from the shared chart or words they have thought of themselves.

practice

Have students complete the practice activity for the /e/ sound. They should first underline any words that contain the /e/ sound, then circle and record the spelling patterns for the /e/ sound.

The second part of the activity is identifying syllables and vowel spelling patterns in words.

The Short Vowel Sounds | 21

ⓘ *The **ea** pattern for the short **/e/** sound usually occurs before these sound-spelling patterns:*
d *— h**ea**d;*
th *— br**ea**th;*
lth *— w**ea**lth;*
sure *— m**ea**sure.*

Support for English Learners
Students whose first language is Haitian Creole may need extra practice and support with this sound.

At the end of each lesson, students are asked what they found out about the sound and the way it is written. The teacher writes 'We found' on the board and records their findings. Students create their own sound chart for the sound being taught and add this information. New information can be added at any time.

Introduction lesson

STEP **1**

How words are made

Ask students to turn to a partner and discuss this question: *What is a word?*

Ask: How many people's definition was about letters or the written word? How many people described spoken words?

Say: A word can be spoken or written. A word is the smallest part of speech that carries meaning.

Spoken words are made up of one or more sounds joined together to produce a particular speech pattern.

Words can be *one* sound — like **/o/** (*oh*) and **/i/** (*I*).
They can be *two* sounds — **/a/ /n/** (*an*).
They can be *three* sounds — **/a/ /n/ /t/** (*ant*).

More sounds can be added to make new words — **/p/ /a/ /n/ /t/** (*pant*), **/p/ /a/ /n/ /t/ /s/** (*pants*).

We make words by putting sounds together in a particular order.

If we change some sounds, we make new words.

We can change the first sound: ***mat*** — *pat*, *hat*, *cat*, *sat*, *that*;
the last sound: ***mat*** — *mad*, *man*, *mash*, *map*, *math*;
the inside sound: ***pat*** — *pet*, *pit*, *pot*, *put*, *part*, *pert*, *port*, *pout*, *Pete*.

Think about your own name — what sounds are in your name? Say the sounds in your name in order to a partner.

For example: **/j/ /oy/** — *Joy*

/k/ /ā/ /t/ /ē/ — *Katy*

/s/ /ī/ /m/ /i/ /n/ — *Simon*

*Whenever a letter or letters are written between two slashes (**/a/**), this represents an individual sound. When asking students to find words with the sound, be sure to pronounce the sound itself rather than the name of the letter.*

STEP **2**

How the code works

Say: Different languages record words in different ways. Some languages, like Chinese, have characters to represent words — these are called logographic languages. In order to read these languages, you have to see the characters and commit their images to memory so that you can recognise them again. You can't write the character until you have a picture of it stored in your memory.

English is an alphabetic language. The letters of the alphabet are used in different ways to represent the sounds that make up words. This produces a code called the alphabetic code. We can learn to read and write English words the same way we write Chinese characters — by storing images of the whole word in our memory and recognising or writing them that way. But we can also use the alphabetic code to work words out if we don't recognise them, and to write them sound by sound if we don't know how to spell them. Once we know how sounds are represented with letters — how the code works — we can read and write words we have never seen before.

Ask: How many letters are in the alphabet? (26)
How many sounds are in the English language? (43). Note: The 45 sounds in the assessment include the double sound patterns **/k//w/** and **/k//s/**)
How can we write 43 sounds with 26 letters? (We have to use letters in combinations.)

Say: We can write a sound with a single letter. Every sound in *cat* is written this way. Write *cat* and the following examples on the board, pronouncing each sound as you write the word — **/k/ /a/ /t/**.

Or with two letters, as in ***sh****ip* (**/sh/ /i/ /p/**).
Or with three letters, as in *l****igh****t* (**/l/ /ī/ /t/**) and *h****air*** (**/h/ /air/**).
Or with four letters, as in ***eigh****t* (**/ā/ /t/**).

Although English only has 43 sounds, they can be written in about 280 different ways.

Catch Up Your Code will help you teach the different ways sounds can be written — how the alphabetic code works. This will help students spell words they want to write, and to recognise and pronounce the code as they read.

instruction

The /sh/ sound

WHOLE CLASS ACTIVITY

*The **/sh/** sound can be written in many different ways. The **sh** pattern is the most common way of writing it on the end and at the start of words, although a few words of French origin that start with **/sh/** have **ch**.*

*The **/sh/** sound can be heard in suffixes that sound like 'shin', 'shil', and 'shis', and there are different ways of writing it:* sta**ti**on, ten**si**on, mi**ssi**on, fa**shi**on, spe**ci**al, an**xi**ous, con**sci**ous.

*If the **/sh/** sound is heard on the end of a root word inside a word, it will usually be written **sh*** (cra**sh**ing, fini**sh**ed).

Support for English Learners
Students whose first language is Spanish or Yue/Cantonese, and some Pacific languages may need extra practice and support with this sound.

You will need: Practice activities for the **/sh/** sound

Using the example below as a guide, draw a sound chart leaving the WORDS and SPELLING PATTERNS columns empty.

POSITION	WORDS	SPELLING PATTERNS
Start with **/sh/**	shadow, shield, chute, charade, sure	sh ch s
/sh/ inside	cushion, brochure, issue, caution, suspension, anxious, precious, conscious, ocean, permission, mashed	shi ch ss ti si xi ci sci ce ssi sh
End with **/sh/**	wish, quiche, liquorice	sh che ce

Say: Think of some words that contain the **/sh/** sound. Which box do they go in — start with, inside, or end with?

The chart example above contains samples of words and patterns students might find for this sound. As students suggest words, check that the word does have a **/sh/** sound, not a **/zh/** or **/ch/** sound. Remind students they are listening for the **/sh/** sound in words, not looking for the letters ***sh***.

What did we find out about the **/sh/** sound? Where does it occur? How do we write it?

We found the **/sh/** sound occurs at the start, inside, and on the end of words. Although ***s-h*** is a very common way of writing it, there are many other ways, especially when the **/sh/** sound is part of a suffix inside a word.

Have students create a personal sound chart for the **/sh/** sound using words from the shared chart or words they have thought of themselves.

practice

Have students complete the practice activity by first circling and recording the spelling patterns for the **/sh/** sound.

The second part of the activity is identifying syllables and vowel spelling patterns in words.

Name: _____

/sh/

Circle the spelling patterns for the /sh/ sound, as in *shoe*, and list the spelling patterns you have found.

shadow	chute	sure	cushion
	issue	caution	suspension	
anxious	precious	conscious	sugar
	ocean	permission	quiche	

Spelling patterns identified:

How many syllables are in these words?

animation ☐ tissues ☐ cautious ☐ accomplish ☐

Each syllable contains a vowel sound. Circle the vowel spelling patterns in each syllable.

Catch Up Your Code is available in New Zealand/Australia, US, and UK editions, in both physical and digital formats.

- The NZ/Aus edition features 43 sounds plus the sound clusters for ***x*** (**/k/ /s/**) and ***qu*** (**/k/ /w/**).
- The US edition includes all sounds from the NZ/Aus version plus the **/aw/** sound.
- The UK edition includes all sounds from the NZ/Aus version plus the **/ure/** sound.
- The three editions are also versioned for regional spelling, pronunciation, and terminology differences and for appropriate second language support.

