Spelling:
from beginnings to proficiency

A spelling resource for planning, teaching, assessing and reporting on progress

Literacy
Secretariat

[CIP data to be supplied]

Contents

This chapter includes the following sections:

Given that the average person can spell 48,000 words, then to memorise these s/he would have to learn 10 words per day for 13 years approximately. If no learning was done at the weekends it would take 18 years assuming that none are forgotten and there is no need to relearn. Even if words are grouped in "families" the task is considerable.

(Bouffler, 1984)

Children and students do not become proficient spellers by the single strategy of memorising the spelling of individual words and teachers cannot teach students how to spell every word they will need to spell. However children and students can be armed with the knowledge and strategies to help them to develop as spellers. This resource will provide site leaders and teachers with the information, strategies and activities for planning, teaching, assessing and reporting on progress.

A changing system

The English language system is in a continual state of change. Some words are no longer used. New words are constantly being introduced to the body of English language as new fields of knowledge, increasing globalisation and waves of migration increase the number of new words that are used. The meaning of some words change or take on new connotations. For example, *deadly* and *cool*, have meanings that they did not have 20 years ago. Pronunciation varies and changes across social groups and over time.

The nature of spelling has been influenced by technology including mobile phones, emails and social networking texts. We are frequently exposed to alternative spellings as we read and view advertisements, poetry, visual media and texts from other English speaking countries. Alternative spellings of some words have wider acceptance in Australia, e.g., *programme/program*, *realise/realize*, brought about by the use of spell checkers in computer programs. While *realize*, for example, is the default spelling in computer software, *realise* is traditionally the Australian spelling. Writers and editors make decisions about spelling forms based on the intended audience and effect.

Developing a classroom culture where spelling differences are explained and analysed will support students to notice alternative spellings, develop a critical approach to alternative spellings and negotiate which spellings are appropriate in particular contexts.

Spelling and context

The major purpose for learning to spell proficiently is to enable the writer to convey her/his meaning as clearly as possible and to enable the reader to read easily and understand what is written. Communication in the written form provides the purpose for spelling. Students should engage in a variety of experiences with written language. Accurate spelling is dependent on the context in which it is written. Choosing *u* or *you* depends of the medium, audience and level of formality of the communication. Choosing to write the noun or the verb in a sentence, as in *practice/practise*, *affect/effect* is dependent on sentence grammar. Choosing the correct homophone to use within a word such as *or/ore/oar/awe* is dependent on the origins and meanings of the word. Such choices are often external to the spelling system itself, emphasising why spelling should be taught as integral to the writing process and not as a discrete skill.

The explicit teaching of spelling is best embedded in the daily practice of reading and constructing texts in all areas of study so that there is a social, cultural and linguistic context for the written form. A list of words to be learnt will not, on its own, be sufficient to serve students' needs.

Spelling and texting

Many students, even from a young age, use texting as part of their daily literacy practices. This has attracted concerns that text messaging could be contributing to poor spelling. However three recent research programs indicate that texting does not have a negative impact on a student's spelling. (Wood et al, 2010; Varnhagen & Pugh, 2009; Kemp, 2009). A common finding is that rather than being a negative influence, texting allows texters to practise and experience success in reading and spelling on a daily basis. Texting is dependent on initial letters and abbreviations, it builds sound-letter relationships which contribute to successful reading and spelling development.

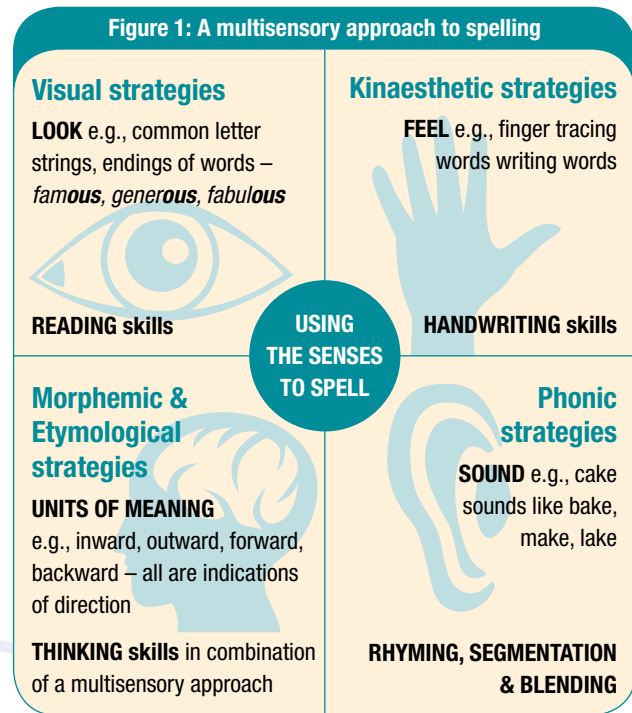# Language acquisition, language learning

Young people acquire language through hearing and using sounds, words, syntax and grammar of the language of their home environment. Very young children approximate sounds modelled in their environment and develop hypotheses about how the language works. They do not necessarily use words they hear adults say, rather they may produce words because they have copied the pattern they have heard. For example, students might say *mouses* instead of *mice*, *seed* for *saw*. As they receive feedback about their attempts they stabilise the 'rule' and revise it to accommodate the exceptions. Acquiring oral language is a gradual process through trial and error, modelling by peers and adults, testing of hypotheses and opportunities to practise. Oral language expands as the need to communicate and curiosity about the world expands.

Learning to spell requires the same opportunities, modelling and feedback. Children or student's need purposeful reading and writing in a broad range of situations, in an environment that values risk-taking. They will develop spelling competence as they implement their knowledge of the spelling system, receive feedback and refine their hypotheses.

For many of our students English is not their first language and the sounds they hear and the words they write may not reflect the patterns of the English language. Students will benefit from hearing the teacher speak clearly and naturally. The teacher also needs to explicitly teach their students the similarities and differences between oral, aural and written words. Teachers will need to model how to use sounds, structures and vocabulary used in English.

Learning to spell is a multisensory process

Learning to spell is a multisensory process since students use their eyes, ears and hands. This multisensory approach supports fine and gross motor skills and memory of previous experiences when attempting to write a word. Students will have difficulty with spelling when they rely only on one type of sense, such as sounding out. Proficient spellers optimise the use of their senses when they spell.

Figure 1: A multisensory approach to spelling

Visual strategies

LOOK e.g., common letter strings, endings of words – fam**ous**, gener**ous**, fabul**ous**

READING skills

Kinaesthetic strategies

FEEL e.g., finger tracing words writing words

HANDWRITING skills

USING THE SENSES TO SPELL

Morphemic & Etymological strategies

UNITS OF MEANING e.g., inward, outward, forward, backward – all are indications of direction

THINKING skills in combination of a multisensory approach

Phonic strategies

SOUND e.g., cake sounds like bake, make, lake

RHYMING, SEGMENTATION & BLENDING

The following multisensory aspects of literacy that support students becoming effective spellers should be considered when planning for teaching spelling:

- **Listening and speaking**

  Hearing, articulating and manipulating sounds and words, expanding the range of oral vocabulary and using it accurately in context, help to develop proficient spellers.

- **Reading and writing**

  Reading provides the knowledge of how words are used in sentences that students need for their writing. Writing provides the opportunity to test and prove their word, spelling and sentence knowledge.

- **Handwriting**

  There is a high correlation between automated handwriting and written language ability. Fluent handwriters can concentrate on the actual spelling of unfamiliar words. Students who are explicitly taught handwriting, including correct letter formation and the linking of letters, are more likely to successfully write letter clusters, onsets and rimes. Some spelling difficulties, for example, reversals of letters, and the difficulty of a reader to distinguish between the letters *u* and *i*, *e* and *o*, *e* and *a*, *v* and *w*, *l* and *i* in some writing, may be related to incorrect formation of letters.

Shared responsibility for spelling

The teacher has the prime responsibility for teaching spelling. In any class, students will demonstrate a range of knowledge, skills and understandings about spelling. There will be writers who have many errors, those that rarely have an error and many in between. When teachers construct spelling programs based on their knowledge of their students' skills, knowledge and understanding of the spelling system, it will support students to be more proficient in the use of Standard Australian English spelling.

When students take responsibility for their learning they use the information about the spelling system and spelling strategies to attempt unfamiliar words, use feedback to refine their choices and keep expanding the bank of words they can spell correctly.

Standard Australian English spelling

Standard Australian English spelling is considered important in our society. Spelling is included in both the national curriculum and national testing. The Australian Curriculum for English (ACARA, 2010) aims to ensure that students understand and use Standard Australian English in its spoken and written forms and in combination with other non-linguistic forms of communication. The Curriculum content is organised in three interrelated strands of Language, Literature and Literacy. Spelling is included as a compulsory component of the Language strand.

The effectiveness of the educational provision at a national, state, system and site level is often judged by spelling competency. Spelling may be perceived as a measure used to compare literacy levels of individual students. Spelling is important to the employment sector. In many employment sectors applicants are judged by their spelling skills. Those who can spell accurately tend to be advantaged over those who do not.

Essential components of a spelling program

Quality teaching and effective learning of spelling occurs when the teacher uses a pedagogy informed by assessment of a student's needs and a deep knowledge of curriculum.

Figure 2: Essential components of a spelling program

Assessment of/for/as Learning — Pedagogy – How I will teach — Quality teaching of spelling — Curriculum – What I will teach
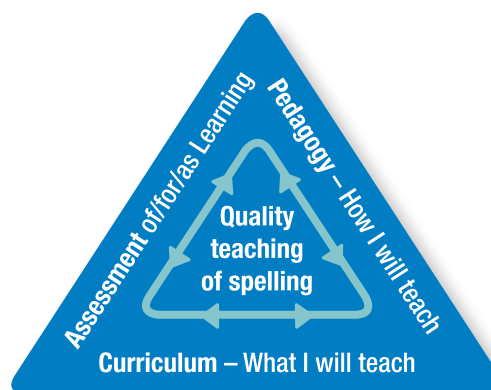
Curriculum

An integrated spelling program:
- builds attention to spelling in a literacy program
- selects texts and words to model spelling patterns from curriculum content and the wider community context
- builds attention to spelling into every learning area and every teaching/learning cycle.

A balanced spelling program:
- is informed by the stages of spelling development
- attends to the four kinds of spelling knowledge (phonetic, visual, morphemic and etymological)
- supports the effective use of resources to select correct spelling such as spell checks, dictionary and word banks.

Pedagogy

A systematic approach:
- supports students to move from what students know about the language and spelling patterns to independence and confidence with the new patterns.

An explicit approach:
- supports students to identify and define the new spelling patterns
- uses a range of interactive activities to practise the new spelling patterns
- shows students how to apply spelling strategies and how to proofread.

Assessment

For a comprehensive approach to assessment:

- gather evidence on the competencies of the students and what they need to achieve (Assessment for Learning)
- identify and reflect on evidence of progress (Assessment as Learning)
- make valid and reliable judgments of student achievements over time using, for example, the stages of spelling development and NAPLaN levels for spelling as a reference (Assessment of Learning).

Word knowledge

Speaking and listening, reading and viewing, and writing activities with which students engage informally and formally extend students' knowledge about words, word building and the English language system. For example, spelling is improved through activities which build familiarity with:

- new vocabulary
- sound–symbol relationships
- relationships between oral and written language
- differences between letters, differences between words
- words that sound the same but have different spelling
- visual patterns of words
- plurals
- tenses
- antonyms
- rhyming words
- adjectives and adverbs
- the way words are always spelt the same way to maintain their meaning
- how context affects the meanings of words.

Problem-solving approach

Students need a problem-solving approach to apply their knowledge about words, word building and the English language system to their spelling. A problem-solving approach can be developed by:

- supporting students to experiment and play with words
- valuing what students know about spelling as the basis for ongoing learning
- providing relevant reasons and audiences for writing
- encouraging risk taking in spelling words
- knowing it is okay to approximate spelling for unknown words
- providing constructive feedback about students' spelling and spelling strategies
- providing frequent demonstrations of effective strategies for spelling from both teacher and peers
- providing access to a variety of resources for finding correctly-spelt words
- providing time and opportunities to practise strategies that have been introduced e.g., sounding out words, thinking of similar words, using appropriate resources

- encouraging students to describe the spelling strategies they use
- supporting students to assess and evaluate their spelling efforts in a broad range of written texts.

In a problem-solving approach teachers support students to:

Figure 3: A problem-solving approach to spelling
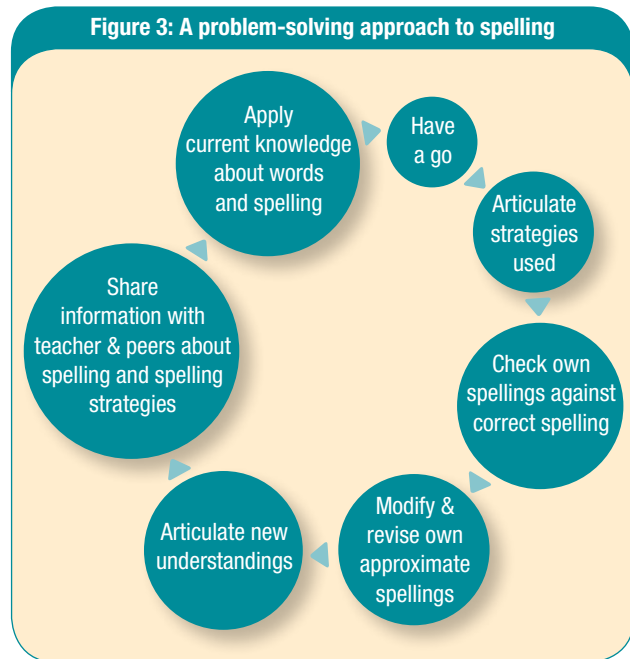
Allocation of time

All teachers have a responsibility to teach spelling to their students. Deciding on an allocation of time for the teaching of spelling can be challenging. It is important in both primary and secondary settings that spelling is taught in all areas of study, including English. In South Australian primary sites spelling must be included in the 300 minutes of literacy per week. This can be achieved through identified times in the timetable and in sessions that are integrated in other learning areas.

Primary schooling

At the primary level, Gentry & Graham (2010) recommend that students benefit by participating in 15 minutes of daily word study and through learning spelling strategies. A teacher decides on a particular focus for the session, or series of sessions, and provides explicit teaching that leads to students further developing their understanding of the spelling system. The teacher ensures students have opportunities to put that strategy into practice in their writing. The strategy is emphasised in the teachable moments as they occur throughout the following weeks.

This work should complement the focus on words and spelling in other lessons. This will result in the transfer of what they have learnt to their writing, particularly when target words are taken from the students' written work or curriculum areas. The Australian Curriculum for English also provides direction for what needs to be taught and assessed.

Middle and secondary schooling

In middle and secondary schooling teachers should have a common understanding about teaching spelling, the allocation of time and a whole site/faculty approach. It is desirable that all teachers identify the relevant vocabulary that students need to know and use in any unit of work. Teachers could encourage students to maintain a record of topical words and a glossary of vocabulary. During this time the teacher and students can also be engaged in studying the meaning and derivation of words and the strategies for learning those words.

Profiles of students

Regardless of the profile of the students there should be a whole site approach to the teaching and learning of spelling to meet the needs of all. Understanding and addressing the needs of specific students may make a difference to the spelling outcomes for all students.

Beginning spellers

When beginning in an educational setting, children and students will demonstrate a wide diversity of literacy knowledge and thus a wide diversity in understanding about the relationships between the oral and written forms of language.

They may:
- be using writing-like symbols
- be writing letters and words or approximations of words
- not be experimenting with writing
- be using phonetic knowledge when first attempting to spell
- not always be able to immediately apply what has been taught
- require scaffolding to make connections/relationships between what they hear and the symbols they write.

Teachers can best assist these students by:
- developing the concept of a word as a unit within a flow of speech
- developing an awareness of the connection between the sounds of oral language and spelling
- engaging students in many listening activities such as rhyming, alliteration, segmentation of words into sounds and syllables
- explicitly teaching the concept of a sentence
- explicitly teaching directionality in written text, that is, left to right, top to bottom
- teaching what the letters of the alphabet look like
- developing a plan for teaching alphabet/ sound-symbol relationships (there is no specific order in which students should learn letters of the alphabet or sound–symbol relationships, although there is some evidence to suggest that letters with similar sounds should not be taught at the same time, for example, m/n, c/g, p/b)
- explicitly teaching the names of the letters and how to write them
- explicitly teaching the common sound (phoneme) associated with each letter (grapheme)
- explicitly teaching that some letters can represent a range of sounds.

Students who are experiencing spelling difficulties

Students who have spelling difficulties are often overly concerned about the accuracy of their spelling and develop a particular range of behaviours in order to minimise errors.

They may:
- select words that are easy to spell or with which they feel confident
- select short one or two syllable words
- select and use many high frequency words, for example, *went* or *go* are used instead of *walked, jumped, drove*
- repeat 'safe' words
- copy letter by letter, rather than copying clusters or strings of letters.

This may result from:
- gaps in their information about the spelling system
- inability to discriminate between letter names and letter sounds
- relying solely on using sound–symbol relationships to spell words
- having a very restricted or limited range of strategies to help learn how to spell words
- producing small amounts of writing.

Teachers can best assist these students by:
- analysing their writing, looking for recurring patterns and discussing with them what they can do successfully
- encouraging them to set small, realistic goals about what they will learn and how to go about the task
- limiting the number of words introduced in a spelling session-three words a day appears to bring the best rate of learning and retention (Westwood, 2010)
- focusing their attention on small chunks of spelling information, using multiple practice until they are implementing it confidently
- modelling and explaining strategies that successful spellers use
- teaching them a range of visual, auditory and kinaesthetic strategies
- providing them with a range of easy-to-use resources so they can find words
- teaching them how to use resources effectively
- giving positive feedback when they apply or create an effective strategy
- reading texts with them and highlighting specific spelling patterns
- scaffolding for longer written texts
- acquiring a bank of correct spelling patterns in the long-term visual and kinaesthetic memory.

Older students with spelling difficulties often demonstrate stages of development and strategies more typical of beginning spellers. For this reason some of the strategies for beginning spellers are equally applicable. Older students with spelling difficulties may also be helped very significantly by the strategies suggested for second language students.

Students from language backgrounds other than English

Students who are learning English as a second language draw on the phonetic, visual and morphemic strategies from their first language to write words in English. They need specific support and explicit teaching as they learn how the English spelling system operates.

They may:

- draw pictures for words that are unfamiliar to them in English
- leave spaces in place of/to replace unfamiliar words
- leave spaces when unsure of the spelling of a culturally significant word, such as a religious figure or event (a space might be seen as more appropriate or less embarrassing than asking for the correct spelling)
- substitute some of the symbols or letters from their first language in English words
- be unfamiliar with the concept of words being made up of sequential sounds (particularly relevant for students accustomed to more pictorial language e.g., Asian languages)
- choose the closest equivalent sound from their first language for their English pronunciation and subsequently choose the incorrect English spelling (e.g., choose the long /i/ so *ship* may be written as *sheep*)
- use a direction for print that is inappropriate for English.

Teachers can best assist these students by:

- developing lists/glossaries of important new vocabulary
- modelling and encouraging students to think strategies aloud
- accepting approximations during draft writing and working with students to help identify and replace these in final copies
- using conferences to work with students to identify morphemic/phonetic/visual strategies that they will use to learn new words
- providing opportunities for students to clarify and verify their understanding of a word (e.g., if they have, through their learning, come to associate jam with a picture of a jam jar they may write jam instead of jar when jar is the correct word)
- providing first language resources that will enable students to locate the English spelling of words, e.g., Arabic–English dictionaries)
- providing opportunities for students to practise writing words—with a focus on accuracy through repetition and memorisation
- providing help in memorisation techniques and regular recording of new words
- working with students to help them prioritise the words they need to learn.

Aboriginal students

Some students who are Aboriginal speak Aboriginal English or use Aboriginal language as a first language.

They may:

- have difficulties with hearing (ranging from acute to mild, and intermittent) due to recurring middle ear infections/Otitis Media
- be unfamiliar with a number of words common in Standard Australian English
- use oral communication more than written communication.

Teachers can best assist these students by:

- ensuring that spelling activities are embedded within a meaningful and purposeful context for learning
- ensuring that those students with a hearing problem sit near them, and face them when they talk
- providing opportunities to cut words into syllables or onsets and rimes, reconstruct words, and develop automaticity through repitition
- planning opportunities to use a variety of visual, morphemic and kinaesthetic strategies
- explicitly teaching a wide range of strategies to assist them in their spelling
- extending their knowledge of words by introducing unknown high-frequency words in spelling activities.

Students with disabilities, learning difficulties and learning disabilities

Students progress along a developmental pathway in learning to spell. The development of spelling skills is not different for students with disabilities and learning difficulties, but may take longer.

Teachers can best assist these students by:

- recognising that these students are often at the beginning stages of literacy acquisition and will need the explicit teaching as described for beginning spellers
- providing age-appropriate activities and content
- chunking learning into manageable stages
- clarifying that they understand the task
- providing real purposes and audiences for writing
- encouraging them to attempt to spell words as part of their writing
- using multi-sensory approaches to any one task
- providing frequent demonstrations of how to spell in the context of purposeful writing
- providing models of correct spelling
- explicitly teach how to use the models to self-correct their spelling
- teaching the same phonetic, morphemic and visual strategies as for other students, taking into account the level and type of disability/difficulty
- providing more frequent teaching and opportunities for practice and revision
- having realistic expectations about what each individual student can do relative to his /her developmental level
- modelling how to focus on learning 'functional sight words'.

Some students with disabilities and learning difficulties may benefit from the use of technology. Students with sensory disabilities may need specialised multimodal equipment to access print to write and communicate. Assistive technology such as text to speech, word prediction programs, spell checkers and talking dictionaries can support students with learning difficulties, particularly in the middle and secondary years of schooling, to work at a more independent level. Software selection will depend on the specific needs of the student and the context it is to be used in. No single assistive technology will support all students with disabilities and learning difficulties. The framework SETT is a useful mechanism for selecting the appropriate technology.

Proficient spellers

Proficient spellers use a variety of strategies when spelling and demonstrate proficiency in self-monitoring and self-correcting their writing. They have highly developed visual and auditory skills that allow them to say, 'that word doesn't look or sound right' as they look for patterns in words or look at word parts. They often try spelling a word several ways to see which way looks correct and can apply, from their knowledge of the English spelling system, a range of strategies to correct a word.

Proficient spellers will draw on four main areas of knowledge which they will generally use in combination when working out the spelling of an unknown word. They will often utilise phonetic, visual, morphemic and rule based strategies automatically without realising that they are doing so.

There is a strong relationship between spelling ability and reading so good spellers tend to have greater accuracy and fluency as readers. Proficient spelling requires a high degree of word knowledge so a spelling program that extends students' spelling vocabularies should positively impact on reading speed and accuracy.

Proficient spellers recognise differences and similarities between words and establish categories of word types. They apply this knowledge when spelling unknown words. They will use feedback they receive to either confirm or revise their hypotheses of their spelling.

In addition proficient spellers:
- have developed a range of mnemonics (memory joggers) to use when writing words that might cause them some problems
- use appropriate resources to check on the spelling of words, e.g., dictionaries, atlases, wall charts, magazines and spell checkers
- have a large bank of words that they can spell accurately and automatically (automaticity)
- apply spelling generalisations
- know alternative acceptable ways of spelling words e.g., will try several ways to write a word they are unsure of
- display a curiosity about words and check the environment for words
- think about what words mean
- are not always careful spellers but spell most words correctly
- recognise which words are "problem words" and identify the parts that cause difficulty
- have a personal list of words they misspell and will refer to the list when writing.

Teachers can best support proficient spellers by:
- fostering their interest and curiosity in words
- guiding them in a process of inquiry and discovery about words
- encouraging them to share the discoveries they make about words with their peers
- setting open-ended problem-solving activities which draw on knowledge of the English spelling system
- playing and creating word games
- encouraging visualisation
- teaching proofreading skills
- providing time for proofreading and correcting of spelling.

Researchers such as Beers & Henderson (1977) and Gentry (1982) found that students did not learn to spell by rote memorisation, but rather that they deduced the underlying rules of the English spelling system. They have defined this development in terms of stages in a sequential order of increasing complexity. An awareness of the developmental stages in spelling should help teachers to identify what a student already knows about spelling and what he or she still needs to be taught.

(Westwood, 1994 & 2010)

Stages of spelling development

The term given for each stage in this resource has been selected from amongst the different labels used to describe spelling development by researchers. An approximate age at which students might be working through these stages has been included. These ages should be considered as indicators only and not as absolutes. Connections have also been made to the levels within the Australian Curriculum for English (ACARA, 2010).

The stages should be used as a diagnostic tool when analysing student writing and making decisions about what needs to be taught next, keeping in mind that some students might not progress through the stages in the same order or at the same rate.

For further information about how to use the stages as an analytical tool and about assessing students' work refer to Chapter 5. For teaching ideas for stages refer to Chapter 6.

Emergent print concepts

Approx. age: 3.5–6 years

Figure 1: Emergent print concepts

In this stage students are developing basic concepts about print. They may begin to write from left to right using the English letters they know. These letters will be strung together randomly and frequently have no relationship to the sounds they represent. The student may know that the print carries the message, but the message will change each time they 'read it'.

These indicators suggest that, in relation to spelling, a student at the emergent stage is working within the Foundation expectations of the Australian Curriculum for English.

Semi-phonetic

Approx. age: 3.5–6 years

Figure 2: Semi-phonetic stage
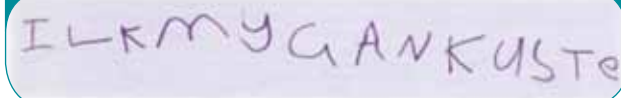
Within this stage students are consistently writing left to right, top to bottom and are able to copy letter by letter. Their writing shows some awareness of sound–symbol relationships, and may produce a word with one, two or three letters which represent what the writer hears as obvious sounds within that word. Students may only be using consonants.

These indicators suggest that, in relation to spelling, a student at the semi-phonetic stage is working within the Foundation expectations of the Australian Curriculum for English.

Phonetic

Approx. age: 5–7 years

Figure 3: Phonetic stage – example 1
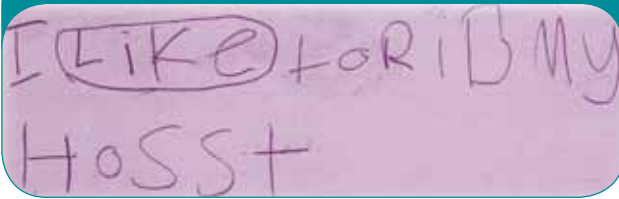
Figure 4: Phonetic stage – example 2
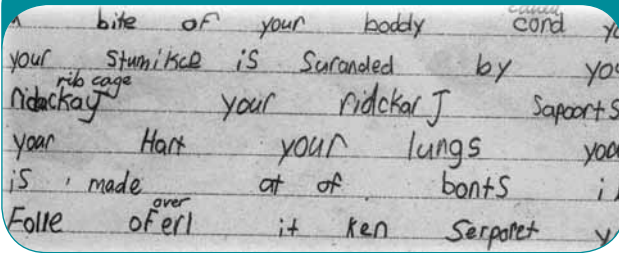
In this stage spelling attempts show an almost perfect match between letters and sounds, for example, *Sapoorts* your *Hart*. Some attempts at spelling are more like standard spelling and some common letter strings are being recalled as whole units (e.g., *-ing*, *un-*, *-ed*).

These indicators suggest that, in relation to spelling, a student at the phonetic stage is working within the Years 2 and 3 expectations of the Australian Curriculum for English.

Transitional

Approx. age: 6–10 years

Figure 5: Transitional stage – example 1
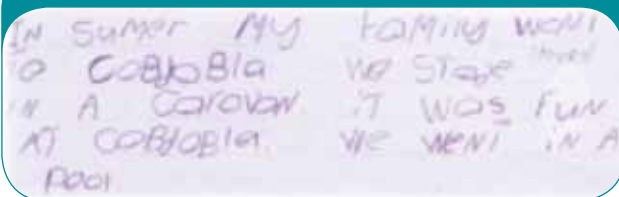
Figure 6: Transitional stage – example 2
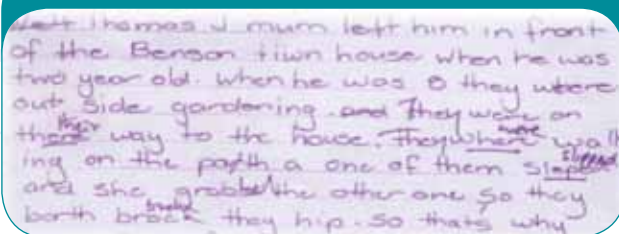
In this stage students use letters and letter clusters to represent all sounds in words. They are moving away from close reliance on phonetic strategies towards a greater use of visual and morphemic strategies. Where phonetic strategies are used they are likely to represent syllable units.

They may over-generalise as they learn this new knowledge. Students have a bank of correctly-spelt words and can proofread their writing for those words.

These indicators suggest that, in relation to spelling, a student at the transitional stage is working within the Years 4 and 5 expectations of the Australian Curriculum for English.

Proficient

Approx. age: 10+ years

Figure 7: Proficient stage – example 1
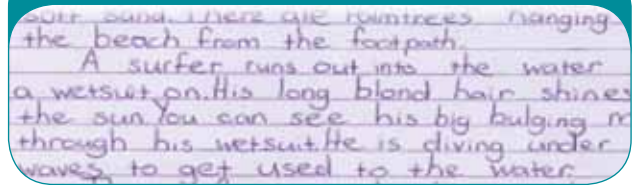
Figure 8: Proficient stage – example 2
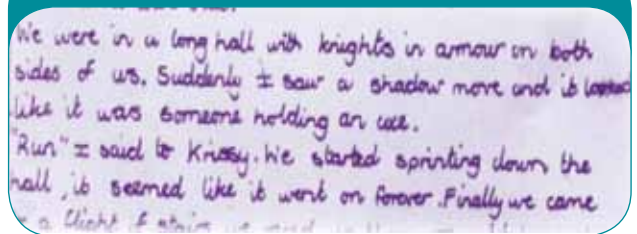
In this stage students are aware of the visual and morphemic patterns of the English spelling system. They are able to spell accurately a bank of complex words and use a multi-sensory approach to spelling unfamiliar words. They form hypotheses about the use of suffixes and prefixes. They can proofread and self-correct their writing. Awareness of their readers' needs contributes to their choice of vocabulary and spelling correctness.

These indicators suggest that, in relation to spelling, a student at the proficient stage is working within the Year 6 and 7 expectations of the Australian Curriculum for English.

More than stages of development

More than one stage at a time

Students' writing will often display indicators from more than one stage. Their different interests and experiences influence the move across stages. For example, students can often spell their own names, names of television characters and high interest words (e.g., *dinosaurs*, *Hungry Jacks*, *computers*) before becoming aware of sound–symbol relationships.

Each new piece of information students gain about spelling will alter their existing perception of the whole system. As students try to integrate new information they may appear to regress because they make mistakes by applying it to words which they were previously using correctly. For example, students who have been writing *jumped*, *dropped* correctly begin to write *jumpt*, *dropt* when they discover that past tense can be indicated with a final letter as a *t* as in the word *slept*. As students begin secondary school, and are introduced to new fields of knowledge, they may revert to a heavy auditory/phonetic approach when they attempt to write subject-specific words that are unfamiliar and when they do not have access to appropriate resources.

Teachers who understand this pattern are better able to analyse students' 'errors' and plan for an effective teaching and learning program in spelling.

Spelling behaviours

Bean and Bouffler (1987) argued that, while identifying stages of development seems a reasonable base for assessing learning and programming, such an approach is limited. After analysing students' writing in the primary years they identified a range of spelling behaviours which were present in more than one stage:

- Spelling as it sounds
- Spelling as it sounds out
- Spelling as it articulates
- Spelling as it means
- Spelling as it looks
- Spelling by linguistic content
- Spelling by being indeterminate.

These behaviours supplement the indicators for the stages of development within which the student is working and should be used to inform planning and teaching.

Overlapping waves theory of spelling

The overlapping waves theory has the view that on most tasks students think in a variety of ways, not just one. The work of Bean and Bouffler has been developed into an overlapping waves theory for spelling (Rittle-Johnson & Siegler,1999; Kwong & Varnhagen, 2005; Sharp, Sinatra & Reynolds, 2008). Their research indicates that students apply a range of strategies as they write words. As students become increasingly proficient as spellers they have a greater reliance on more sophisticated strategies. This is represented in figure 9.

Figure 9: Overlapping waves theory of spelling (Sharp, Sinatra, & Reynolds, 2008)
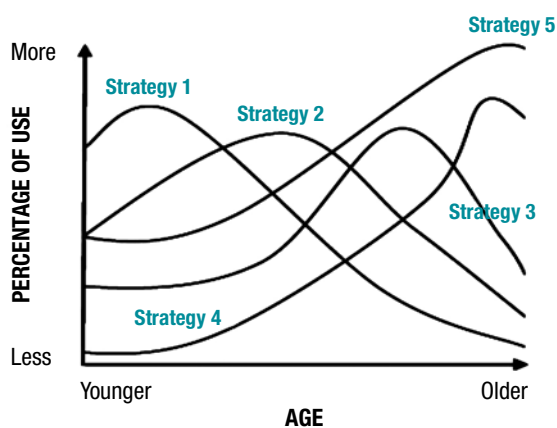
Strategy 1: Spell it like it sounds

Strategy 2: Spell it by pattern

Strategy 3: Spell it by rule

Strategy 4: Use several strategies (analogy, copying from a secondary source, chunking)

Strategy 5: Spell it from knowledge, not just memory (mnemonics & automaticity)

The link between Bean and Bouffler's (1987) work and the overlapping waves theory for spelling is shown below. Bean and Bouffler's (1987) categories expand Strategies 1 and 2 of the overlapping waves theory.

Table 1: Link between Bean and Bouffler's (1987) work and the overlapping waves theory for spelling		
Overlapping Waves	**Bean and Bouffler**	**Example demonstrating what students do**
Spell it by sound	• Spelling as it sounds	Looks phonetic, e.g., *tishoo = tissue*, *gow = go*
	• Spelling as it sounds out	A student uses an exaggerated sounding out, e.g., *hafh = half*, *itn = eaten*
	• Spelling as it articulates	Students place a letter for every sound they speak, e.g., *efeeda = every day*
Spell it by pattern	• Spelling as it means	Has elements of meaning in word, e.g., *flossurteef = floss your teeth*
	• Spelling as it looks	Students use a visual pattern, but some letters will be in the wrong spots, e.g., *appel = apple*, *gose = goes*
	• Spelling by linguistic content	The way that a students spells one word in a text may influence the way a subsequent word with a similar sound is spelt, e.g., using *sed*, *hed*, *led pencil*, *bred* instead of *said*, *head*, *lead pencil*, *bread*
	• Spelling by being indeterminate	A handwriting strategy when unsure, e.g., write *i* and *e* so that they look similar and dot the *i* in the middle of the two letters

Figure 10: Year 1—Explanation showing spelling by sound – spelling as it sounds, sounds out, articulates
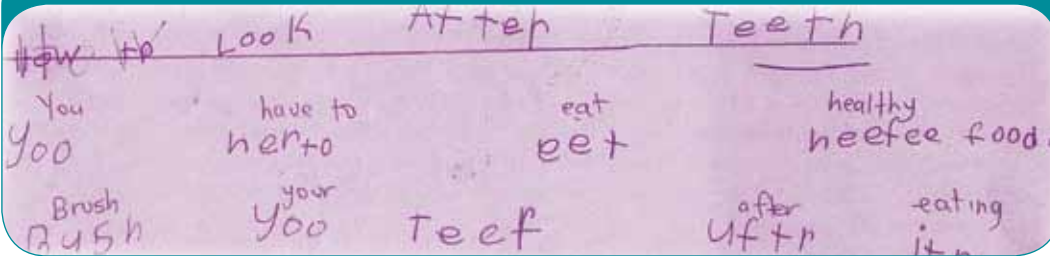
Figure 11: Year 7—Description using spelling by sound – spelling as it sounds, sounds out
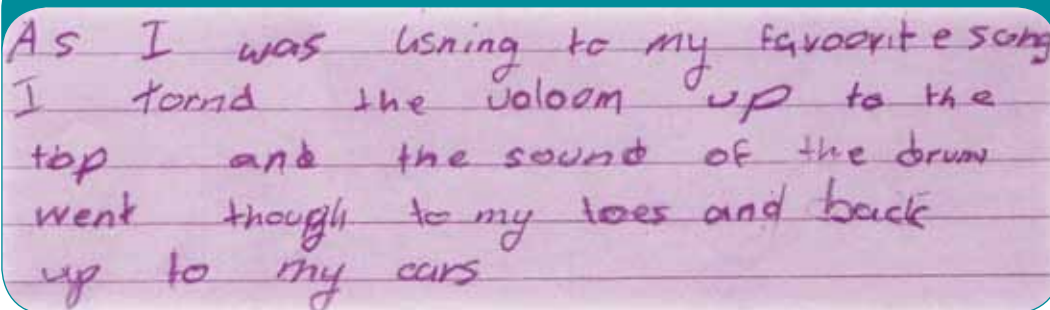
As the overlapping waves theory of spelling indicates that students are making adaptive choices among a range of strategies that they use to spell words automatically, it implies that their spelling growth will develop more quickly when even the earliest spellers need to be taught a range of spelling strategies. (Kwong & Varnhagen, 2005)

More information about the spelling strategies are in Chapter 3 and teaching activities are in Chapter 6.

The spelling system and spelling strategies

In addition to knowing about the stages of development of spelling, effective teaching and learning in spelling is dependent upon teachers having knowledge about the spelling system. Having the understanding and language to recognise what students know about the spelling system will assist teachers in identifying and planning for the next steps of development for their students.

Written language as a meaning-based social system

Any written language, including English, supports the communication of ideas and information between people across time and space. Spelling, as part of written language, enables communication through its functional, social and contextual purposes. The functional purpose enables writers to record meaning as they write. The social purpose assists the reader to read what is written and make accurate meaning of what is written. Spelling can also enhance communication by reflecting the context of the communication. For example, in some contexts *I luv you* is the most effective form of spelling to communicate the intended meaning.

Knowledge about spelling

There are four types of knowledge about spelling:

- phonetic (the sound–symbol relationship)
- visual (the way letter combinations look)
- morphemic (the meaning units within a word)
- etymological (the origins of words).

English spelling is considered irregular and difficult to learn when it is linked only to phonetics. Proficient spellers use all four types of spelling knowledge when they are writing known and unfamiliar words. Thus, any teaching approach for spelling must contain information about the four types of knowledge about spelling.

Phonetic relationships

Knowledge of the phonetic or sound–symbol relationship is a vital element in learning to spell. This is also known as phonics or graphophonics.

Successful spellers develop the following phonic knowledge:

- letter names
- sounds represented by symbols—vowels and consonants
- onsets and rimes (e.g., *tr–uck; sh–op; p–et*)
- spelling patterns—strings or clusters of letters which occur in many words sharing common sound units (e.g., *ite/ight*).

Table 1: Phonetic relationships	
Phonic element	**Description**
Letter names	It is important that students learn the names of the letters of the alphabet and that letters are single units. When they do, they can participate in discussions and explorations related to letters. For example, teachers ask students to find the letters in their name and then to find words with that letter e.g., *r* as in *run*, *jar*, *birthday*. Students also need to understand that there is a consistent name for each letter even though the pronunciation may differ, as o in *hop*, *joke*, *honey*.
Sounds represented by symbols	While there are 26 letters in the alphabet they combine in a variety of ways to make at least 44 speech sounds of the English language.
vowels	All English words have vowels (a, e, i, o, u) in them. In some words a *y* is used as a vowel instead of *i*, as in *shy*, *physical*, *python*. There are a range of vowel sounds including short vowels, as in *mop*, *hat*, *fin*, and long vowels as in *mope*, *hate*, *fine*.
blended vowels	Blended vowel sounds are known as digraphs or diphthongs.
digraphs diphthongs	Digraphs include pairs of vowels that make one sound, as *ea* in *beat*, *oa* in *coat* and *or* as in *for*. A diphthong is also a pair of vowels, but there is a speech glide when pronouncing the pair, as *ei* in *vein* and *ui* in *fruition*. The sound of each digraph or diphthong can be represented graphically in a variety of ways. The vowel sound in the following words is the same but is represented by different letters, as in *play*, *reins*, *straight*, *great*, *ballet*, *eight*, *obey*, *rain*, *gauge* and *matinee*. The vowel blend is represented by the phonetic symbol /ay/. This variety of symbols for one sound causes problems for many students who are learning the English spelling system. It is often suggested that vowel sounds should be learnt in context with specific consonants in real words rather than through rote learning in isolation. (Strategies are suggested in Chapter 6)
consonants	The position of a consonant sound in a word will influence the selection of the symbol for that sound. For example, the /f/ sound can be written as an f (*fog*), ff (*coffee*), fe (*safe*), ph (*photo*), lf (*calf*), gh (*tough*), u (*lieutenant*), but a word beginning with an /f/ sound would never, in English, be started with a *gh*, *lf*, *ff*, or *ieu*.
digraphs	Some single consonant units are represented by two letters, also known as digraphs, for example, *sh*, *th*, *ph*, *ch*, although there is some disagreement amongst linguists as to whether *ch* is a digraph or not. These digraphs can be pronounced in different ways as *th* in *the*, *thief*, *Thailand*.
consonant blends	Consonant blends are commonly occurring letter clusters. Unlike a digraph where two letters produce only one sound, in a consonant blend it is possible to hear each sound if pronounced slowly, e.g., *b–l–ack* or *s–t–r–ing*. Common initial consonant blends include *sm*, *sl*, *bl*, *cr*, *sp*, *cl*, *tr*. Common final blends include *ft*, *nd*, *mp*, *nd*, *st*, *nk*. Gunning (1995) indicates that it is very difficult for some students to hear the separate sounds in consonant blends and that it is easier for students to learn them when teachers focus on adding a vowel sound to the final consonant blend, e.g., *ing*, *ink*, *oft*, *ump*. This is because the vowel sound is usually stabilised in the rime. These endings are sometimes referred to as rimes and beginning groups as onsets.
Onsets and rimes	The terms onset and rime refer to the way in which single syllable words can be broken down into a beginning sound unit (onset) and a unit containing the vowel and all that follows it (rime). For example, *dog*: onset *d*, rime *og*; *stop*: onset *st*, rime *op*.
Spelling patterns *letter strings* *letter clusters*	A letter string is made by adding a final consonant or consonants to a vowel digraph or diphthong, as *ai* + *l* in sail, *ea* + *ch* in beach. Developing word building lists using such letter string patterns supports students to learn to spell many words phonetically. When a student remembers the spelling of words by recalling the sound and spelling of similar words, it is known as spelling by analogy. For example, a student writing the word *prime* could recall the sound from the experience of writing *time*, *lime*, *chime*. Some clusters are common letter sequences, for example, *ation*, *igh*, *own*, *ould*, *ough*. Through their reading and writing experiences students gradually refine their selection of letter sequences and learn that there are some letter sequences that never occur in English, such as *zps*, *umbp*, *pxr*, *gwk*, *chk*. It is essential that students experiencing spelling difficulties be explicitly taught, so they move from using single letter units to more functional letter strings that represent larger units of sounds in words. Students may initially write with a mixture of letter names and sounds, as in *RU hr* which progresses to *ar yu her* and finally to *are you here* as they integrate morphemic and phonetic information to determine the most likely patterns for representing both sound and meaning. Students at all year levels may adopt a phonetic approach when expected to write unknown complex words.

Refer to Appendix 1: *Stages of phonic awareness* for a sequence of progression from single letter sounds to working with initial and final blends, digraphs and more complex vowel combinations. This is a guide for the sequenced teaching of phonics.

Visual information

Although the spelling system operates on the basis of meaning and sound, from the student's point of view, it is often familiarity with the visual pattern of words which is important, particularly when students are proofreading. Successful spellers develop the following visual knowledge:

- symbols/letters are used to write words
- there are spaces between words
- a letter string (ie a spelling pattern) may represent the same or different sounds
- the same sound can be represented by different letter patterns
- the probability of letter order in the common letter strings in English.

Explicit teaching supports students to become aware of spelling patterns and to develop a visual image of words. Holdaway (1990) recommends attention to highly contrasting sounds (such as /m/, /k/, /v/) and avoiding attention to similar sounds, such as /m/ and /n/, /p/ and /b/ at any one time. However, the teacher should be guided by the interests and needs of the students.

Morphemic (meaning) relationships

Successful spellers develop the following morphemic knowledge:

- using morphemes (ie using units of meaning to spell words)
- adding suffixes and prefixes to base words
- spelling patterns common to word families (ie letter strings)
- apostrophes for contractions and possession
- homonyms.

Table 2: Visual information	
The same spelling pattern may represent the same or different sounds	For example: • *ai* can be consistently read as /ae/ as in *train*, *Spain*, *claim* • *ai* can have multiple pronunciations as in *plait*, *said*, *train*, *Shanghai*
The same sound may be represented by different letter patterns	For example: • the sound /u / can be represented by the letter "*u*" as in *but*, "o" as in *front*, "oe" as in *does*, "oo" as in *blood* When a student's writing shows that only one letter, for example, "*u*" is being used to represent the /u / sound, this would be an opportune time to introduce the wider range of letter patterns that also make the /u / sound.

Table 3: Morphemic relationships

Morphemic element	Description
Morphemes	A morpheme is the smallest unit of meaning in the English language. Morphemes are always spelt the same way regardless of how they are pronounced. There are three types of morphemes: free, bound and non-word-based.
free morphemes	A free morpheme can stand alone and is therefore a word, e.g., *glory*, *fuse*. Free morphemes cannot be broken into smaller words and thus can cause some difficulties for some students.
bound morphemes	A bound morpheme, or affix, is added to a free morpheme to alter its meaning. It cannot stand alone, e.g., • *s* meaning more than one, as in *fuses*, *crumbs*, *boats* • *ed* indicating past tense, as in *looked*, *signed*, *hailed* • *ful* meaning having the quality of, as in *beautiful*, *truthful*, *tuneful* • *un* meaning not, as in *uncertain*, *undone*, *uneven*. A word may be made up of a free morpheme and a number of bound morphemes, for example, *dis agree ment s*, which has one free and three bound morphemes.
Suffixes and prefixes	Suffixes are bound morphemes added to the end of words to change their meanings. They are always spelt the same way, and any changes that need to be made when adding suffixes are made to the base word. For example: • *dare—daring* (drop the *e* and add *ing*) • *hop—hopping* (double the final consonant and add *ing*) • *marry—married* (change the *y* to *i* and add *ed*). Prefixes are bound morphemes added to the beginning of words and are always spelt the same way. While a suffix usually has the same meaning, some prefixes have more than one meaning, e.g., *contra-* always means *against*, while *un-* can mean not or reversal of an action.
adding suffixes	Spelling rules for adding suffixes cannot be applied consistently as most rules have exceptions. One possible teaching approach is to use rules, or generalisations, to highlight a particular spelling pattern, but students should not be asked to memorise or recite them. (Stahl, 1992) The generalisations should be discussed as tentative. A problem-solving approach to encourage students to form their own generalisations about how to add suffixes, after encounters with words that exemplify the generalisation should be encouraged. Students who are proficient refer to a dictionary to check all cases where they are doubtful of a spelling they have generated from morphological rules.
three common generalisations	Words ending in a *consonant + e* drop the *e* but only when the suffix begins with a vowel: • *hope—hoping, hoped, hopeless, hopeful* • *believe—believed, believing, believable.* Those words that end in a *consonant + y* usually change the *y* to *i* and add the suffix: • *funny—funnier, funniest* • *silly—sillier, silliness, silliest.* Words that have more than one syllable, end in one *vowel + consonant* and have the pronunciation stress on the last syllable, *usually double the final consonant* when the suffix begins with a vowel: • *permit—permitted, permitting* • *instil—instilled, instilling.*
Spelling patterns common to word families	Words with similar spelling patterns can make more sense when they are explored for meaning. For example: • *famous*, *spacious*, *courageous* are all linked through the suffix ous meaning "abounding in".
Apostrophes for contractions and possession	Apostrophes are used in two ways: when some part of a word is left out, as in *they're* instead of *they are*, and when something belongs, as in *Paula's garden*. The former is known as an apostrophe of contraction, the latter as an apostrophe of possession. The apostrophe of possession always follows the complete noun, e.g., the *baby's pram*, the *babies' prams;* the *child's toy*, the *children's toys*.
Homonyms	A homonym is a word that has the same sound or the same spelling as another word.
homographs	Homonyms, which are spelt the same but have different meanings as in *bear (to carry)* and *bear (animal)* are also known as homographs.
homophones	When two or more words sound the same but are spelt differently they are known as homophones, e.g., *saw*, *sore*, *soar* and *they're*, *there*, *their*. While there is merit in spending time during word study time discussing homophones and homographs with students, it is more useful to teach about homophones from the context of the students' own writing, since the selection depends on the context in which the word is written.

Etymological relationships

Etymological knowledge is a useful morphemic tool for students.
This includes knowledge of:

- the origins of base words
- acronyms
- neologisms
- portmanteau words
- eponyms
- proprietary words.

Vocabulary that is subject specific often contains these types of words.

Table 4: Etymological relationships	
Etymological element	**Description**
Origins of base words	Many words are derived from other languages, for example: • *aster*oid, *astro*nomy, *astro*naut (from Greek: *aster* = star) • *cent*ury, *cent*ipede, *cent*urion (from Latin: *centum* = hundred) • *dec*imal, *dec*imate, *Dec*ember (from Latin: *decem* = ten) • *facil*e, *facili*tate, *facili*tation (from Latin: *facilis* = easy).
Acronyms	An acronym is a word formed by joining the first letters of other words, e.g., *Qantas—Queensland and Northern Territory Air Services*.
Neologisms	The creation of a new word or expression.
Portmanteau words	A blended or portmanteau word is formed by blending the start of one word with the onset or rime of another. It will have the same meaning as the two words from which it originates, e.g., *Medibank—medical + bank*, *sitcom—situation + comedy*.
Eponyms	An eponym is a word that originates from the names of people, places or institutions, e.g., *leotard—J. Leotard*, a trapeze performer.
Proprietary words	A proprietary word is a trade name or trade mark, e.g., *Bandaid*, *Gillette*, *Jacuzzi*, *Biro*.

Major spelling strategies

The overlapping waves theory of spelling suggests that students, even those who are beginning to write, use a range of spelling strategies at any time when writing. Research indicates that students develop better and quicker skills at retrieving correct spelling from their memory if they are explicitly taught the following strategies:

Spell like it sounds

Students need to be invited to explore and experiment with spelling unknown words. Students use this strategy when they attempt to write words by breaking words into sounds they hear and saying them aloud as they write a word. They need to be reassured that taking risks with "getting it right" is an important step towards becoming a competent speller. It is important that encouragement to use invented spelling is accompanied with the explicit teaching of spelling and strategies for checking.

Spell it by pattern

In this strategy teachers teach the patterns for the sounds (*ee* as in *bee*, *see*, *feet*; *dr* as in *drop*, *drink*; *tr* as in *tree*, *trap*) and build word families. Teaching patterns extends well into the primary years and includes silent letter patterns, prefixes, suffixes, and compound words. Knowledge of patterns means that students can learn to spell more than one word at a time.

Spell it by rule/generalisation

Teachers can work with their students to develop rules / generalisations as students have enough knowledge to have formed the concept before defining the generalisation. For example, forming the generalisation "when adding *ing* to words that end in *y* then leave the *y* and add the *ing*" would happen after students' writing was showing evidence of inconsistency when adding the *ing*. Knowledge of the rule can be a useful reference in case of doubt.

Spell it by analogy

When students use this strategy they use another known word to help them write an unknown e.g., *end/bend*, *candle/handle*, *light/fright*. Research (Brown, Sinatra, Wagstaff, 1996) also indicates that students taught to use analogy when learning about common rimes *(ug*, *on*, *at ent*, *ate*, *ight)* results in improved spelling at all year levels. Teachers should explicitly teach students how to make use of analogy to spell a new word.

Spell it by chunking

When students chunk words they break them into smaller pieces (not necessarily syllables) so that they are easily remembered e.g., *Feb-ru-ary*, *in-ter-net*, *tech-no-lo-gy*, *Wed-nes-day*. Students can find small words inside longer words e.g., *add-it-i-on*, *s-tip-u-late.*

Spell it by copying from a secondary source

It is important that students learn how to use resources such as a dictionary, atlas, or reference book, to check the spelling of a word new to them, or a subject specific word. Before they can do this proficiently they need to know how to use a dictionary and index.

Spell it from memory

The aim of teaching spelling is to increase the number of words that a student can retrieve from memory (automaticity). Teachers should be explicit about the purposes for learning to spell and provide opportunities for students to engage in activities that assist them to develop memorisation and demonstrate their growing proficiency.

Spell it using mnemonics

Mnemonics is a device that is used to help students to remember the spelling of words. Teachers can provide their students with some mnemonics e.g.:

- *ocean:* use the first letter of each word – only cat's eyes are narrow
- *separate:* There was farmer named Sep and one day his wife saw a rat. She yelled SEP a rat-E
- *hear/here:* You HEAR with your EAR.

Programming

This chapter includes the following sections:

A quality spelling program

A quality spelling program is

Integrated:

- builds attention to spelling in the literacy program
- selects texts and words to model spelling patterns, from curriculum content and the wider community context which are familiar to students
- builds attention to spelling into any teaching and learning cycle
- builds students' self image as spellers.

Balanced:

- develops the four kinds of spelling knowledge (phonetic, visual, morphemic and etymological)
- attends to the major spelling strategies (spell it like it sounds, spell by pattern, spell by rule/generalisation, analogy, chunking and mnemonics)
- supports the effective use of resources to select correct spelling (e.g., spell checks, dictionary, word banks)
- builds automaticity in the correct spelling of words.

Systematic and explicit:

- predict the spelling pattern of an unfamiliar word using prior knowledge about words and spelling
- supports students to identify and define spelling patterns and generalisations
- provides a range of joint and independent interactive activities to practise new spelling patterns
- supports self assessment of progress.

(DECS 2010 Spelling Paper Literacy Secretariat)

Spelling within a coherent whole site literacy program

A whole site approach to developing and implementing a quality spelling program is required to ensure students' continuous and sequenced growth as spellers and to improve students' educational outcomes.

A coherent whole site approach to spelling emerges when all site members work together to develop and enact consistent spelling teaching and learning beliefs, expectations and practices.

A whole site approach, developed collaboratively, fosters a learning community focused on a consistent and continuous approach across the site and ensures that all students will engage in a variety of spelling experiences suited to their spelling development.

The following are useful considerations for a whole site approach to spelling:

Table 1: Considerations for a whole site approach to spelling
Coherent approach	• What does the literacy program in our school look like? • Do we need to develop an agreed focus and direction for teaching spelling? How? • Do we need to develop a shared understanding, commitment and language for spelling assessment and teaching? How? • What collaborative professional learning can we access that builds our staff's capacity to refine their spelling practices?
Consistent approach	• Do we need to develop a consistent and coherent implementation of curriculum and pedagogy across year levels in spelling? How?
Data informed approach	• How do we use data and evidence to inform instruction, intervention and resources?
Inclusive approach	• Do we provide differentiated teaching and learning to support each student to achieve the targeted outcomes? How? • What role will parents play?
Curriculum	• What do we currently teach when we teach spelling? • Do we have a scope & sequence for spelling?
Pedagogy	• What are our beliefs about teaching spelling? • What are our current practices when we teach spelling? • Do current practices reflect our beliefs? • What are our beliefs about how students learn to spell?
Assessment and Reporting	• What information is currently available about our students' spelling? • Have we analysed NAPLAN Spelling and other school based tests? • How do we monitor student growth? • How do we provide positive feedback to our students about their spelling? • How will we report spelling progress to parents?
Further questions for consideration	• What are the current positions about spelling that need to be discussed and resolved before developing a consistent policy? • Who will be responsible for writing the policy? • How will the writer/s be supported? • What mechanisms are there for feedback and refining of the policy? • What is the timeline for implementation of the spelling policy? • How will the effectiveness be assessed and by whom?

Whole site spelling policy: a template

R–7 Spelling Policy

Introduction / Rationale

Components of a Spelling Program
Statements about the place of core words, personal words, theme words, generalisations, modelled spelling, guided spelling and independent spelling.

Time Allocation

R–7 Spelling Continuum based on Australian English curriculum

Skill Development Overview
A table listing skills by year levels: exposure, teach, maintain.

Generalisations/Rule Overview
A list of all generalisations/rules, examples of and the year level/s they will be explicitly taught in.

Yearly (R–6) content pages
Description from Australian Curriculum.
Expansion of skills and knowledge to be taught.
A core spelling list to be taught.

Teaching Activities
Information about using spelling lists.
Places to find spelling activities.

Assessment
Formal assessment timetable.

Resources
Classroom resources to support students.

Glossary

Bibliography

Programming

The needs of students are best met when teachers, within the context of daily writing experiences, provide structured learning which leads to the development of knowledge of the spelling system and strategies to use when writing unfamiliar words. Teachers best support this by programming spelling across all areas of study. Programming provides teachers with a systematic way of planning for the ongoing development of students' skills, understanding and knowledge of the spelling system in all areas of study.

The ultimate objectives should be that each year students develop a larger cache of words that they can write correctly every time they use those words, and become more proficient users of a range of spelling strategies to help them with words that they find challenging.

In most classes there are a range of students and it may mean that the teacher has differentiated outcomes for groups of students. Schumm, Vaughn & Leavell (1994) suggested the following model (figure 1) when planning to cater for the diversity of students within a group.

Figure 1: Catering for Diversity

What
SOME
students
will learn

What MOST
will learn

What ALL will learn

The following are useful considerations for classroom programming:
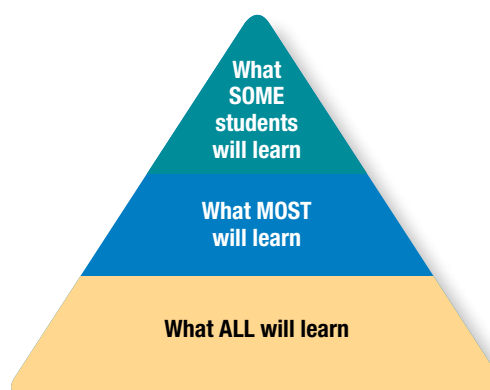
Table 2: Considerations for classroom planning	
Considerations for programming	• What aspects of the whole site approach to literacy and spelling do I need to consider for my programming? • What are the current beliefs related to teaching and spelling? Where do I find this information? • What are the requirements for spelling in the Australian Curriculum for English? • Do I have a year/term/semester overview? • Do I have a monthly/weekly/daily program? • What opportunities do I have for professional conversations about my program with my colleagues? • How do I share my program information? • How do I share with families? • How will my reflections on student progress be included in my program?
Environment	• How will I structure the learning environment so that it is motivating, supportive, challenging, relevant to students' interests, needs and experiences and encourages them to take risks in their learning? • What resources will my students need access to, to help them with their spelling e.g., people, word walls, dictionaries? • How will I ensure all my students are able to celebrate success?
Curriculum	• What content and strategies will I use to develop my students as spellers? • What skills, knowledge and understandings do the students need to learn? • What resources will I use? • What areas of the curriculum does my spelling program need to be linked to?
Pedagogy	• How will I differentiate learning for different groups of students in my class? • How will I teach the skills, knowledge and understandings the students need as spellers? • How will I ensure that students understand the impact of context on spelling? Do students understand the need to use Standard Australian spelling in some contexts? • What writing activities will I plan so that students have real purposes for learning to spell? • How will I teach proofreading and provide time for students to proofread and correct errors? • What strategies do I use to teach students to self correct?
Assessment and Reporting	• How will I assess *for*, *of* and *as* learning? • How do I manage the assessment and reporting process? • How will the school, colleagues, students and families be informed of the results of assessment?

A number of examples of programming follow. Whatever model for programming is used, a program contains the expected student outcomes, the skills and strategies that will be taught, the range of learning activities and methods, and the approach to assessment and reporting. Refer Appendix 5 for a programming proforma.

Programming models: primary

Example 1: Programming for a Reception to Year 2 class

Year overview for an R–2 class (Table 2)

Most of our spelling activities are based around class events and interests. This enables all students to have a shared background knowledge and interest in using the words studied. The following example of a specific event-based spelling program used swimming lessons at the beach as the context. There is a systematic and explicit approach when the teacher works with small groups of students in the class.

Table 3: Year overview for an R–2 class	
Overview	Students will: Learn the basic linguistic structures and features for communication in written English, such as directionality of print, letter–sound relationships and punctuation.
Objectives	Students will: • develop an understanding of the structures and features of written language (letters, related sounds, words, word patterns) • demonstrate an ability to use this understanding/knowledge during their everyday writing tasks • attempt to spell unfamiliar words • use a variety of resources and strategies to assist their spelling development • develop a bank of known high frequency words.
Strategies	• Drawing where possible from the context of the students' reading and writing, individual letter names and sounds are taught explicitly through a multisensory program • Digraphs, onsets and rimes, visual and sound patterns are taught using a variety of activities to suit different learning styles • Spelling strategies are modelled at every opportunity • When we 'look' at a word, we count the letters, identify the beginning and ending letter, find any little words in it, examine the shape • Words are displayed in the classroom and students are instructed in how to use this resource • Big Books and class writing are used to focus on words and structures- spaces between words, direction of print, use of capital letters and full stops • Use of the dictionary is modelled • Students use 'have a go' books during their daily writing • 'Look, say, cover, write, check' is used as a strategy to assist students to learn words from their individual writing • Area of study/topic-related words are taught in context.
Resources	• Everyday texts—junk mail, TV guides, magazines, newspapers, site notices/newsletters • Big Books • Teacher, student, class writing • Charts, posters • Rhymes and songs • Multisensory materials, e.g., play dough, sand, rice.
Assessment	Based mainly on the objectives stated above, evidence of progress will be monitored by: • testing individual students to assess letter knowledge • observing students' use of spelling during writing • observing their degree of independence and use of strategies during writing tasks • analysing collected pieces of student writing and noting demonstrated growth of knowledge.

A unit of spelling: programming in English, Health and P.E.

In term 1, students from the R–2 class were involved in learning to swim. This was done at the beach. The teacher decided to program her spelling in English and Health and Physical Education for a four-week period. Systematic and explicit teaching of spelling strategies was a part of all learning activities.

Table 4: A unit of spelling	

English	• Assess students' knowledge of letter names and sounds of *b*, *s*, *m*, *w*.
	 • Use the onsets and rimes *sw*, *im*, each to:
	  – write lists of words
	  – word sorts: students describe their sorting of words.
	 • Introduce vowel blends *ch*, *ea*.
	 • Use junk mail and literature search to:
	  – find and discuss words with those vowel blends
	  – make lists of words, sorted alphabetically
	  – use glue and sand to make significant letters and words
	  – introduce and teach students to use a 'have a go' book
	  – teach students to use 'look, cover, write, check'.

Health and physical education	Demonstrate 'have a go' strategies: sounding out, thinking of other words that sound the same, finding words in appropriate resources to: • develop a list of words to use in a letter to parents about what students needed to bring to swimming lessons • learn the spelling of the days of the week so students could write a diary of the lessons • build a list of high frequency words used by students in their writing about swimming • read picture books or junior fiction and reference books related to the theme being studied and look for letter/letter patterns using *ea*, *sw*, *ch*, *im*, *b*, *s*, *m*, *w* • introduce adding suffixes to swim • search junk mail and literature for other words ending in *ing*, *s*, *ed* • model proofreading.

Daily classroom spelling routines:

- Revise and build on students' knowledge of letter, onset, rime, word
- Students participate for 10–15 minutes in a spelling activity
- Whole class discussion and follow up about the activity, for example, how students sorted words
- Model a 'have a go' strategy
- Students write about their swimming lessons
- Support students to access correct spelling of words when proofreading.

Example 2: Programming for a Reception to Year 2 class (Table 5)

R–2 class Junior Primary

When students enter the class they are assessed on their knowledge of letter sounds, letter names, ability to write 3 letter words, digraphs and letter strings. They then become a member of either, the Alphabet group, 3 Letter words group or Digraph group. They remain in a group until they meet the assessment criteria of the teacher. The aim of the spelling program is to develop automaticity of letters/words taught and learnt. The teacher, students and parents use a communication folder so that parents know what the students are learning, how to support their child and the results of the assessment.

Each group has a daily routine of explicit teaching and learning with the teacher, and a series of activities to complete. They do not necessarily do all activities each week. The students and teacher record what activities they have done. A formal handwriting lesson on letter, word, and blend happens each week. They are formally assessed on their achievement each week. Their results inform their learning for the next week. The teacher maintains explicit records of their achievement and if a student does not meet their learning goals for the week they then repeat that week's learning the following week.

In addition to this the teacher often has a mini lesson for the whole class if it is noticed that a large number of students are making common errors in their general writing, particularly in adding suffixes. An example of this is changing the *y* to *i* and adding *es* to make plurals, e.g., *fly/flies*.

Table 5: Programming for a Reception to Year 2 class

The Alphabet group	**Activities**
	Copy the pictures and words from the letter card onto paper.
	Do a handwriting sheet for your sound.
	Do a worksheet for this sound.
	Use playdough to make your sound and some things that start with it.
	Find 10 pictures of your sound in a magazine. Paste them onto paper.
	Paint your sound. Add pictures of things that start with that sound.
	Type lots of your letter sounds on the computer. Decorate your page. Print it.
	Some people in our class have this sound in their name. Write these names. Put a line under your sound.
	Write your sound 10 times on a blackboard.
	Write your sound. Draw around its shape using rainbow colours.
3 Letter words group Digraph letter strings group	**Activities**
	Write your list words in sentences.
	Do a worksheet on your sound.
	Look, say, cover, write, and check your words.
	Type your list (10 words) on the computer. Decorate the page, print it.
	Paint your words.
	Get a blank grid and make a word search of your words.
	Write your words in fancy writing. Try using different colours.
	Write your words. Draw around their shape using rainbow colours.
	Have a friend say your words. Write your words. Check your spelling.
	Write your words in alphabetical order.
	Work out the number value of your words using the code cards.
	Write your words using 1 colour for the vowels and a different colour for the consonant.

Example 3: Programming for a year 6–7 class (Table 6 and Table 7)

At the beginning of the year, a year 6–7 class teacher analysed students' writing and engaged students in a discussion about spelling. She used this information to develop a broad overview of what would be taught and assessed so that student outcomes could be achieved.

Overview

Students will be:

- **drafting** e.g., finding temporary spellings for unknown words through morphological [meaning] patterns, visual letter patterns and patterns of sound–symbol relationship
- **reviewing, revising and proofreading** e.g., consulting resources such as text models, spelling checkers, dictionaries and thesauruses
- **spelling** e.g., matching sounds within words with known phonic letter patterns; using letters to represent all vowel and consonant sounds in words; combining different strategies—phonic, visual, meaning—based, chunking, mnemonics-when attempting unknown words
- **using new words in writing even when unsure of exact spelling** e.g., using knowledge of word parts, using dictionaries, wall charts.

Table 6: Programming for a year 6 to year 7 class		
Teacher objectives & methodology	**Student outcomes**	**Evaluation & assessment**
Establish a classroom environment that fosters a positive attitude towards spelling by: - demonstrating an interest in words - modelling, to whole class, conventional spelling, - discussing phonic, visual, etymological and morphemic skills and generalisations in class writing activities - encouraging and positively acknowledging reasonable ideas about spelling words - modelling editing skills and encouraging students to use those skills in their own work - using assessment methods that focus on what students can do and the progress they are making.	Students show they are positive about spelling when they: - confidently 'have a go' using visual, phonetic and morphemic strategies - proofread own work for spelling, and use most appropriate resource to confirm spelling - set challenges to learn words that they will use or that intrigue them - use generalisations about spelling to add suffixes, prefixes, build compound.	Observations: - anecdotal notes - using wrap analysis to regularly examine student's spelling - students' weekly tests on own words - "Confessions of a speller" interviews.
Assist students to develop the habits of competent spellers by: - using analogy to spell words that sound similar - using a look, cover, write, check approach to learn irregular words - focusing on adding suffixes, prefixes to groups of words, derivatives of words, homonyms - effectively using a range of resources to confirm spellings—dictionaries, computer spell checkers, atlases, word lists, etc. - using mnemonics (memory joggers) - proofreading and identifying possible errors.	Students are developing the habits of competent spellers when they: - use look, cover, write, check to learn new words - are able to use strategies to remember how to spell personally difficult words - use a dictionary, thesaurus, computer spell checker, atlas, word lists effectively.	
Teach students the skills to build a personal vocabulary of accurately spelt words and strategies to increase that vocabulary by: - adding prefixes and suffixes to common words - learning words of personal interest.	Students have increased the number of words they spell accurately.	

Table 7: Programming for a year 6 to year 7 class – Term 1				
Term 1				
Topic	**Resources**	**Skill development indicators**	**Activities**	**Assessment**
Strategies • revise adding suffixes and prefixes (ment, able, ible, tion, sion) • making connections between spelling, grammar, and formalities in choosing correct homophones • improve proof reading strategies	Variety of mass media and every texts Class novels	More constant selection and use of correct homophone and addition of suffixes Errors in own writing are found and corrected more efficiently	Students use everyday/mass media texts to find examples of words containing the focused suffix. These words are compiled and students make informed generalisations about their use—to be done with whole class Class discussion about homophones that are confusing, find them in sentences in class novels Discussion about placement and use in sentences and how this indicates selection of correct homophone. Write own sentences to demonstrate correct choice	
Spelling test (weekly)	Select words from own writing, class topic, personal interests, charts, atlases, etc.	Increase in number of words spelt accurately Ability to use appropriate strategies to spell words accurately Ability to spell words correctly in other writing	Individuals: • identify words • write words • select appropriate strategies to remember how to spell words • independent spelling test	Record of test errors kept by student and teacher Teacher notes which errors are constant and plan extra teaching for students with those errors
Word study contracts My place The oceans	Chart words relevant to topic—sort by: • derivative • meaning • rime • letter string • alphabetically	Improved use of spelling strategies to write new/unfamiliar words Increase in vocabulary Improved word knowledge	Word study sheet constructed to emphasise: • vocabulary • dictionary/spell checker use • word games • poetry • narrative and report writing Opportunities for: • whole-class discussion and teaching • small group and individual work Proofreading own writing for spelling errors particularly adding suffixes, choice of homonyms Students maintain a record of their correct use of suffixes and homophones	Analysis of piece of writing from each topic using wrap tool

Example 4: Programming using the four knowledges of spelling

Some sites are planning their classroom spelling around the systematic and explicit teaching of the four knowledges of spelling: visual, phonological, morphemic, and etymologic.

	Table 8: Programming using the four knowledges of spelling – year 2/3					
	Year 2/3: Themes—Australia/Maps/Procedures					
Week	**Visual Knowledge**	**Phonological Knowledge**	**Morphemic Knowledge**	**Etymological Knowledge**	**Learning goals**	**Assessment**
1	Students to start theme words into the four knowledges with discussion amongst students	Create a discussion about the words	observation questioning during discussion			
2	Individual word lists from Oxford List and from writing	**Small groups learning with sounds** *an, sk, lk, ck, ee* • Brainstorm • Segmentation • Sentences • Bingo	**Directions** North, South, East, West (Meaning) • Use a compass to find out directions • Look at how the states got their names		Australian and mapping words	Cloze activity
3	Individual word lists from Oxford List and from writing	**Small groups learning with sounds** *am, st, ld, wh, ee* • Brainstorm • Segmentation • Write a story • Find-a-word		**Abbreviations** *SA, WA, NT, QLD, VIC, NSW, TAS* • Use a dictionary to find abbreviated words • Find abbreviations in a news-paper	Australian words	Abbreviation bingo game Comprehension of abbreviations
4	Individual word lists from Oxford List and from writing	**Small groups learning with sounds** *as, sl, lt, qu, oo* • Brainstorm • Segmentation • Cloze activity • Play dough words	**Compound words** *football, outback, waterhole, clockwise* • Brainstorm compound words • Compound word puzzle • Draw compound words		Australian and mapping words	Recognise compound words in a piece of writing

Table 8 *CONTINUED:* Programming using the four knowledges of spelling – year 2/3					
Year 2/3: Themes—Australia/Maps/Procedures					
Week	Visual Knowledge	Phonological Knowledge	Morphemic Knowledge	Etymological Knowledge	Learning goals	Assessment
5	Individual word lists from Oxford List and from writing	**Small groups learning with sounds** *ap, sp, ft, y(e), ou* • Brainstorm • Segmentation • Draw words • Hangman	**"ing" with silent e** make–making • Brainstorming verbs with a silent e • Building base words • Memory • Using present tense		Knowledge of different verbs in the present tense	Dictation activity using verbs with silent e
6	Individual word lists from Oxford List and from writing	**Small groups learning with sounds** *ad, sm, sk, squ, ou* • Brainstorm • Segmentation • Sentences • Bang!	**"ing" without doubling** • Brainstorming verbs • Word web • Snap • Using present tense		Knowledge of different verbs in the present tense	
7	Individual word lists from Oxford List and from writing	**Small groups learning with sounds** *ag, sc, all, str, ow* • Brainstorm • Segmentation • Oral story • Find-a-word	**"ing" with doubling** • Brainstorming verbs • Building base words • Find a word • Using present tense		Knowledge of different verbs in the present tense	Cloze activity- "ing" with and without doubling
8	Individual word lists from Oxford List and from writing	**Small groups learning with sounds** *em, sw, oll, scr, ow* • Brainstorm • Segmentation • Cloze activity • Chalk words	**"ed" without doubling** • Brainstorm verbs • Word web • Crossword • Using past tense		Knowledge of different verbs in the past tense	
9	Individual word lists from Oxford List and from writing	**Small groups learning with sounds** *en, sn, ill, shr, or* • Brainstorm • Segmentation • Draw words • Play dough words	**"ed" with doubling** • Brainstorm verbs • Building base words • Hangman • Using past tense		Knowledge of different verbs in the past tense	Cloze activity- "ed" with and without doubling

	Table 9: Programming using the four knowledges of spelling – year 6/7 (a seven week program)					
	Year 6/7					
Week	**Visual Knowledge**	**Phonological Knowledge**	**Morphemic Knowledge**	**Etymological Knowledge**	**Learning goals**	**Assessment**
4	Chance & Data words Personal sight words from writing "*ough*" words	"*ough*" cough, enough, through, though, plough, thought, fought PHONO Bingo	Plurals - *s, es, ies, ves* (wolf, wolves)		• Introduce words used in chance and data • Reflect on words used in explanations (present tense verbs & time words)	
5	Chance & Data words Personal sight words from writing "*ough*" words	"*ough*" cough, enough, through, though, plough, thought, fought	Prefixes *dis*, *il*, *im*, *ir*, *in* BASE WORDS M3	WORD WEBS (meaning of morphemic prefixes)	Reflect on words used in explanations (present tense verbs & time words)	
6	Personal sight words from writing EXPOSITIONS WORDS Qualifying words – usually, probably, mostly "*augh*" words	"*augh*" laugh, caught PHONO BINGO "*ough, augh, alf*"	Prefixes *mis*, *anti*, *under* BUILD YOUR OWN WORDS M6	WORD WEBS (meaning of morphemic prefixes)	Brainstorm a list of sensing verbs – students to sort words into four knowledge's	Phono bingo on '*ough*' sounds
7	Personal sight words from writing "*augh*" words	"*augh*" laugh, caught	Prefixes *auto, non, circum, multi*	WORD WEBS (meaning of morphemic prefixes)	EXPOSITION WORDS "*augh*" words	
8	Personal sight words from writing "*aw*" words	"*aw*" saw, lawyer	Prefixes *be*, *en*, *co*, *micro*, *post*	WORD WEBS (meaning of morphemic prefixes)	EXPOSITION WORDS	Knowledge of prefixes
9	Personal sight words from writing "*aw*" words	"*aw*" saw, lawyer	Homonyms, homophones & homographs		EXPOSITION WORDS	
10	Personal sight words from writing "*uar*" words	"*uar*" guard, January, guarantee	Possessive Apostrophes	Blended words – smoke + fog = smog E5 – Portmanteau	EXPOSITION WORDS	Homophone cloze sheet

Example 5: Programming using the four resources (Table 10 and Table 11)

Freebody and Luke (1995) take the position that a successful reader in our society needs to develop and sustain the resources to adopt four related roles:

1. Code breaker (How do I crack this?)
2. Text participant (What does this mean?)
3. Text user (What do I do with this here and now?)
4. Text analyst (What does this all do to me?)

Teachers are using these roles as a model for programming learning activities for spelling.

A teacher of a year 6–7 class used the 'four roles of a literacy student' to program a learning program in English. From her analysis of student writing and discussions with students she had observed that many students were having problems correctly writing words containing *ph*. She discovered that some students were fascinated by those words. As a result she developed the following program:

Table 10: Programming using the four resources of a literacy student	

Code breaker (in spelling this could be renamed as encoder)	• Directionality
	• Letter names
	• Sound–symbol relationships
	  – onsets
	  – rimes
	  – letter strings/clusters
	  – digraphs
	  – syllables
	  – homonyms
	• Alphabetical order.

Text user	• Using words in sentences, crosswords, fiction and non-fiction writing • Using words in a variety of forms to enhance meaning • Using dictionaries, indexes, thesauruses, spell checkers to confirm spellings
Text participant	• Meaning relationships; exploring how words are related through meaning by using prefixes and suffixes • Finding meanings of words they write in dictionaries • Using background knowledge of a topic to understand the meanings of words they write
Text analyst	• Exploring the variety of ways certain words can be used, who might say them, what is meant when they are used, how might the listener/reader interpret what is said/written • Considering how different groups of students/adults might interpret the way a word is used in particular contexts

Table 11: Word study in a year 6–7 class

ph = f

phantom
elephant
telephone
phase
photographer
alphabet
microphone
photosynthesis
xylophone
dolphin
telegraph
photocopy
geography
phenomenon
orphan
Pharaoh
orphanage
physics
pharmacist
physician
pheasant

Code breaker

An elephant never forgets
Write in syllables
1. Say and sound the list of words
2. Sort the words into number of syllables as you write them

Text participant

Meanings
3. Use a dictionary and your background knowledge to write the list words that mean:
   a) a ghost or spirit
   b) a musical instrument
   c) a large four-legged mammal
   d) the letters of a language in order
   e) an intelligent marine animal
   f) a ruler of ancient Egypt
   g) a long-tailed game bird
   h) a doctor
   i) a person who dispenses medication
   j) a machine used for transmitting sound to a large number of people
   k) a remarkable occurrence
4. Write the 3 *ph* words which name types of machines
5. Write the 3 *ph* words that name an employed person
6. Write the 3 *ph* words that have something to do with music

Dictionary
7. Use the dictionary to find the meanings of: *phantom, orphan, orphanage*

Text user

Writing
8. Write a paragraph as if you were one of the following, using some *ph* words:
   • An explorer visiting Africa
   • A musician
   • A medical patient

Text analyst

Multiple meanings
9. Talk with a partner about what you think "phase" means in each of these sayings; who might say them and why, and what the listener might feel when they are said. Write your explanation for each.
   • it's just a phase he/she is going through
   • phase out
   • the third phase of the moon

Example 6: Programming using Gardner's multiple intelligences (Table 12 and Table 13)

Gardner (as discussed in Vialle & Perry, 1995, p. 12) defines intelligence as the ability to solve problems or create new products that are valued within one or more cultural settings. He suggests that each individual possesses a unique blend of intelligences which they use in a variety of integrated ways in everyday tasks. The seven intelligences are:

- verbal–linguistic
- logical–mathematical
- visual–spatial
- bodily–kinaesthetic
- musical
- intrapersonal
- interpersonal.

In many sites teachers have used this model as a basis for their programming for the teaching of spelling. Following are examples of programs teachers have developed for their primary classes. In the first, the teacher planned the year 5–6 word study as one part of a learning program using the text *The witches* by Roald Dahl (1993).

Table 12: Integrating Gardner's multiple intelligences into a learning program
Novel study for a year 5–6 class: As part of your work with *The witches* by Roald Dahl
Choose 10 difficult words from your novel. Devise codes to disguise your words. Get a friend to unlock your code, e.g., dzmioefs = cylinder
Find words that begin with spl, chl

Make a staircase beginning with a word from the novel, e.g.,
better
  terror
    orange

Make an across and down chain using words from the novel, e.g.,
pet
  e
  l
  lorry

Use a base word to make lists of related words, e.g., two, twin, twenty; medic, medicine, medical, and use them to create a rap/rhyme
Find words that look the same but may have different pronunciation or meaning, e.g., wind (as in breeze), wind (as in turn), light (as in weight), light (as in illumination)
Find lists of words with similar endings, e.g., *est*, *ing*, *ed*, *tion*, *en*, *ly*
Select words that have a double consonant before *ing*.
List the emotive words from the first two chapters e.g., silly, hatred. Use a thesaurus to find antonyms for each word.
Choose 10 of the longest words in the book. Find definitions for each.
Write a good sentence to make the meaning clear to a reader.
Find 10 three-syllable words. Show how to break them into syllable.
Write words from the novel that tell how the characters feel and draw a picture for those words
Make a list of 10 words from the novel that are made up of a prefix and a base word, e.g., dis appear
Find and list 10: • compound words • words with suffixes • plurals • word families.

Table 13 is a generic model developed by a teacher for her class. It is one that could be adapted and used by a teacher at any level of schooling to ensure students developed a range of intelligences. The words students learn can be taken from any area of study. The teacher would ensure that students had been taught, and could use, the strategy that they were asked to use in their word study contract.

Table 13: Generic model integrating Gardner's multiple intelligences

Multiple intelligences: Spelling and word knowledge activities

Verbal–Linguistic	Write words, meanings and sentences Do cloze activities	Say them: • look • say • learn • cover • write • check	Do: • crosswords • wonderwords • jumble words • synonyms • antonyms	Add • endings • prefixes • suffixes	Write a story to include all your list words
Logical–Mathematical	Write your words in code Break words into syllables	Do word webs: crystalline hard	heavy ROCK solid volcanic	Identify patterns in your words Write more words with the same patterns	Sequence words in terms of • alphabet • difficulty • length, etc	Use a Venn diagram to show the similarities & differences in your words Classify attributes of the words
Visual–Spatial	Draw the words, ie a picture to illustrate meaning HAIRY	Write the words in fancy lettering styles or draw the words as the sound Use visual mnemonics e.g., LθθK	Play Pictionary to learn words and meanings Mindmap words Make up wonderwords Play a word game	Arrange your words into: • chains • ladders e.g., H a r d o c k	Stare at your word Focus on it and then close your eyes to see it in your mind's eye Spell it aloud Spell it backwards
Bodily–Kinaesthetic	Play charades or act out the words	Use your body to show the words, e.g., sign language, make shapes with your body	Use plasticine to make your words Use magnetic letters to spell out your words Close your eyes and guess the word by touching	Clap out the syllables and mouth the word without sound	Write the words in large chalked letters outside Walk around the letters using your feet to trace Try again with your eyes closed
Musical–Rhythmic	Tap out the syllables of the word	Create a rap or song including your words Practise spelling them by singing out the letters	Tap out the words in Morse code	Look for the patterns and use them to create a rhyme	Use a musical instrument to create a tune for your words Create a musical game to learn word patterns
Interpersonal	Form peer coaching teams to help learn new words	Write your words on card and play Concentration with some friends	Use peer assessment to help assess your work and set goals	Play word games in pairs or small groups	Play 10 Questions Think of a word Players may ask 10 yes/no questions in order to guess the word
Intrapersonal	Identify your learning strengths by analysing which activities you found easiest and why	Utilise self-assessment for reflection and to set goals for your work	Keep a learning journal as a record of your work Record your spelling results and achievements	Think about what strategies you use to spell a word that you don't know	Use self-directed learning contracts to set individual spelling targets

Example 7: Programming using Bloom's Taxonomy (Table 14)

Bloom's taxonomy (1956) is a frequently-used model for the development of higher-level thinking skills which can provide the structure for developing varied teaching and learning activities. It is designed to lead all students through a sequential process in the development of a concept or the learning of relationships.

The sequence is:

- knowledge—judge, verify, recommend
- comprehension—restate, translate, interpret
- application—use, illustrate, classify
- analysis—investigate, explain, compare
- synthesis—plan, create, invent
- evaluation—judge, verify, recommend.

An example of how this was be done in one year 4–5 class is described in Table 9. As a result of students' interest in working dogs in their community, the teacher planned a learning program in science. She developed the word study contract as a tool for practising and revising spelling strategies that she taught to students in English.

Table 14: Using Bloom's Taxonomy in a year 4–5 word study
Dogs
Use at least five lines to design a bright colourful heading (this is to be done in spare moments or at home).

Activities	
	1. List at least 10 different breeds of dogs. Write your list in alphabetic order.
	2. Research one breed of dog. Write about their physical appearance, what they eat, how to look after them, etc.
	3. Dogs are often called a 'man's best friend'. Discuss how relevant this saying is in today's world. Explain what you think this means. Draw a poster that reflects your understanding, and whether you agree with the idea. You may change the words of the saying.
	4. Write a poem about a dog or dogs.
	5. Read some cartoon strips about a dog and draw your own featuring a dog.
	6. Design a kennel of the future. Label and describe its special features.
	7. The following words can be used to describe dogs: courageous, trustworthy, obedient, mongrel, purebred, appealing, companion, protective, aggressive, adventurous, affectionate, lovable, glamorous, glossy, athletic, loyal. Choose at least 5 of these words and write down the dictionary meanings for them. Choose meanings that can be used to describe dogs.
	8. Find or draw pictures of two different dogs. Write a paragraph to describe and compare the dogs using some of the words above.
	9. If you could choose a puppy for a friend or family member which breed would you choose? Write a paragraph persuading that person why they should have that dog, include at least 3 reasons for your choice.

Programming models: secondary

In a secondary context, discrete timetabling for spelling does not generally occur, even though spelling achievement does matter. Students are assessed on their spelling knowledge and ability through the NAPLAN Test in Year 9, and accuracy of spelling is considered in literacy assessments in Stage 1 and 2 of the South Australian Certificate of Education (SACE).

In the years 8–10 context the framework for programming is the Australian Curriculum (2010). Spelling is part of the Language strand in the Australian Curriculum for English. In other areas of study there is an expectation that students will develop the particular vocabulary of that area and use it in an appropriate way when writing. It is therefore the responsibility of all secondary teachers to:

- identify the specific vocabulary of their subjects
- identify the spelling demands of that vocabulary
- explicitly teach the spelling knowledge students need in order to spell this vocabulary correctly.

This will often involve teaching morphemic and etymological knowledge, e.g., the use of Greek roots in many scientific terms, the use of Italian words in music, French terms in cooking. Secondary teachers will most probably concentrate on teaching students to use strategies such as analogy, referring to a secondary resource for correct spelling, and mnemonics leading to automaticity.

While secondary teachers often place most emphasis on the spelling of new subject specific vocabulary, it is vital that they also support students in the use of increasingly complex words for everyday use. All teachers can include a range of teaching and learning strategies when introducing the vocabulary for a learning program and when students are writing. For example:

- developing a glossary for the unit and modelling conventional spelling to the whole class
- positively acknowledging close approximations to the spelling of topic specific words
- modelling proofreading skills and providing time for students to use those skills in their own work
- using assessment methods that focus on what students can do and the progress they are making (e.g., as part of the criteria for a unit, the ability to spell and use the glossary words correctly in their presentation)
- using appropriate strategies to learn new words
- focusing on adding suffixes and prefixes, knowing derivatives of words, and homonyms that are frequently used in an area of study
- effectively using a range of resources to confirm spellings (e.g., dictionaries, computer spell checkers, atlases, word lists, etc.)
- using mnemonics (memory joggers).

(Refer to Chapter 6 for information about all of these strategies)

Weekly routines in secondary sites (10–15 minutes 3 times per week)

- Revise knowledge about a spelling strategy
- Engage students in activities to build on that knowledge
- Class/group discussion arising from the activity, for example, when in doubt, is it better to add *sion* or *tion* to a word
- Three times per week, students continue on word study contract
- Provide time daily to add words to list, and to practise using a strategy to learn how to spell the words
- Once per week, students give each other their spelling test. This is monitored by the classroom teacher, who also provides feedback to the students.

When students have major spelling difficulties, it may be necessary to refer them to support teachers. Teachers use the same teaching strategies as for transitional or phonetic spellers, but do so with age appropriate material.

Assessment, recording and reporting of spelling

Principles of assessment

Assessment is an integral part of teaching and learning. Teachers plan for assessment as part of programming. Teachers use a variety of assessment strategies to evaluate their students' knowledge, skills and understandings, and the effectiveness of their teaching. These strategies provide all students with opportunities to demonstrate achievement. Teachers involve students in the assessment process and they negotiate joint responsibility for the assessment of student work. Students should know what is being assessed, when it will be assessed, how it will be assessed and what will be done with the assessment. Criteria for the assessment and method of assessment are developed with students, made explicit and available for all students during the unit.

Ongoing assessment allows a teacher to map a student's growth of skills, knowledge and understandings. To map progress in spelling, teachers consider students' spelling in the areas of study for which they are responsible. Groups of teachers responsible for the teaching of several areas of study might consider meeting regularly to discuss the spelling of students who are having spelling difficulties. Assessment is only effective if teachers evaluate the results and use this information to plan for future learning.

The following principles are useful to guide practice:

1. All students have the right to be skilled and knowledgeable participants in the processes of assessment and reporting.
2. Effective teaching practices rely on assessing and reporting strategically.
3. Effective assessment and reporting of student achievement requires a coordinated whole site approach.
4. Effective assessment and reporting practices are equitable.
5. Effective assessment and reporting requires the use of a comprehensive range of methods and strategies.

Strategies for assessment fall into the broad categories of:

- observation
- conferencing
- product analysis.

Students' self and peer assessment should be part of each type of assessment.

The assessment strategies teachers use, and when they use them, will depend on the teachers' long-term and short-term goals. The long-term outcomes to be assessed will be partly determined by the assessment criteria of the Australian Curriculum for English.

Assessment strategies

Strategies for assessing learning

Figure 1: A balanced view of assessment
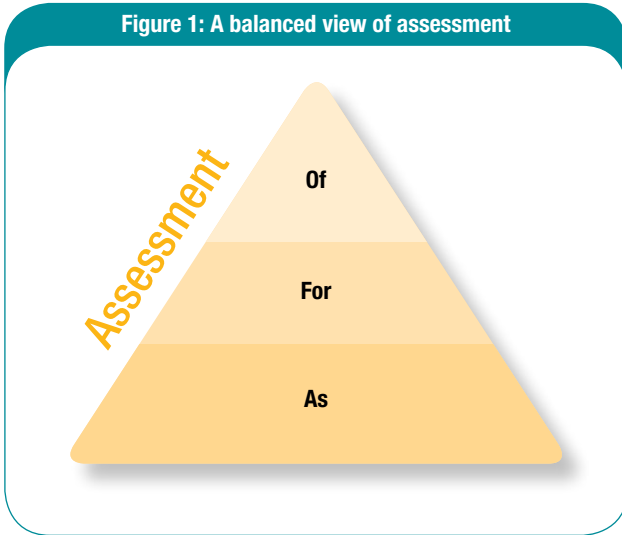
Assessment is an integral part of learning. It can guide the learning program and stimulate further learning.

Traditionally assessment practices could be described as assessment of learning. Currently sites are taking a more balanced view of assessment where assessment as, assessment for, and assessment of, is of equal importance. (Figure 1)

Assessment of learning

The purpose of assessment of learning is summative, intended to certify learning and report to parents and students, and to education systems. It shows students' progress in site and allows teachers to make valid and reliable judgments of student achievements over time using, for example, the stages of spelling development, the Australian Curriculum for English and NAPLAN levels for spelling as a reference.

Assessment for learning

The focus shifts the emphasis from summative to formative assessment, from making judgments to creating descriptions that can be used to inform the next stage of learning. Teachers collect a wide range of data about students' spelling so that they can modify the learning work for their students. They develop assessment tasks that indicate what students know and can do. Marking is designed to highlight each student's strengths and weaknesses and provide feedback that will further learning.

This implies that teachers observe their students engaging in writing and spelling and gather writing samples. They consider the behaviour and the samples and ask:

- What does this student know about print concepts, letter sound relationships, morphemes, visual patterns, etymology?
- What strategies is this student using to spell?

This information informs further teaching and learning.

Assessment as learning

This views students as active, engaged, and critical assessors. Teachers work with students to make sense of their spelling, building on prior knowledge to help them understand new skills and knowledge. Teachers assist students to develop skills of self-monitoring so they can make informed decisions about what they need to do next. It empowers students to ask reflective questions and consider a range of strategies for better learning of their spelling.

Assessment of learning

Product analysis of students' spelling

Product analysis involves collecting students' work and reflecting on their development as spellers: what they have succeeded with and what they haven't, what they know and what they have yet to learn.

Samples of students' writing would be taken from all areas of study for which the teacher is responsible. In the secondary setting it may be possible for teams of teachers to look at a range of writing of a group of students. Teachers use a range of draft and final written products to compare and analyse students' ability to proofread and make corrections.

Through analysis of students' writing, teachers gather information about strategies that students are using, for example:

- when attempting to write unfamiliar words
- the stage/s of development that a student is working in and thus what needs to be taught
- students' ability to identify and correct errors
- comparison of a student's spelling over a period of time
- categories of errors that students make
- percentage of words spelt correctly.

Through product analysis, peers can discuss:

- the strategies a partner uses to spell unfamiliar words
- a partner's ability to use a particular strategy, e.g., choose the correct homophone.

Through self-assessment, students can:

- review and self-correct spelling attempts
- consider the strategies they use to spell unfamiliar words
- compare pieces of writing, over time, and consider the types of words they spell accurately
- record the number of words they have spelt correctly and the errors they have made in their pieces of writing.

Analysing students' draft writing (Figure 2)

Using first draft writing, teachers identify whether students immediately self-correct some words that do not look correct as they write them. They are able to make judgments about the strategies that they are using to make corrections.

While reading a text for meaning, the reader does not attend to every letter or word. However, when proofreading the reader is searching for errors. Students need to develop a separate set of skills to be able to proofread effectively. A period of time should elapse between the

Figure 2: Year 7—Narrative showing corrections as the text is written and a few after writing
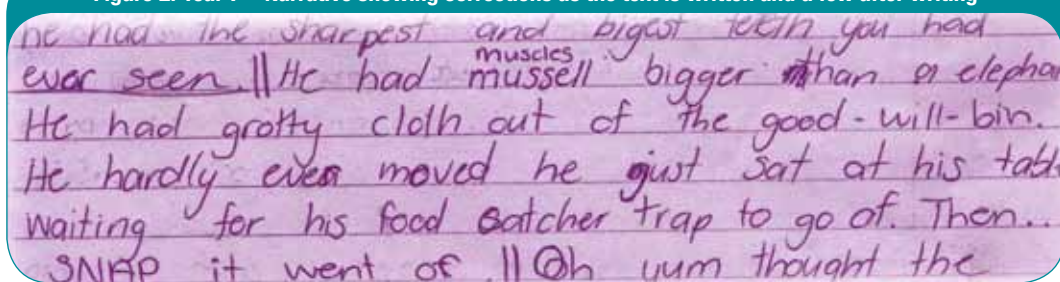
writing of a text and proofreading. Teachers explicitly teach students these skills. To measure students' growth in spelling, some teachers ask students to proofread a piece of their own writing several weeks after the first attempt and to reflect on what they have learnt in the interim.

Using drafts which have been proofread, teachers are able to identify:

- which words students are able to recognise as correct or incorrect
- the strategies that students use to correct the words.

In self-assessment, students can, from first draft writing, identify:

- the number of words they have spelt correctly
- the strategies they have used to spell unfamiliar words.

In self-assessment, students can compare texts written and proofread several weeks apart. They can identify:

- the complexity of the words they now use
- the number of words they can now spell correctly
- the strategies they now use to correct misspelt words.

Monitoring progress through testing

As a part of the process of monitoring student progress, teachers may use a range of testing mechanisms in conjunction with the other assessment strategies previously described.

Dictation

Dictation can be a valuable activity and provides students with an opportunity in which to write from memory. It supports some students to attempt to write words which they might not use in their other writing. It provides teachers with further evidence of the strategies that students use to attempt unfamiliar words. There are many useful ways in which dictation can be administered and some of these are described in Chapter 6.

Spelling tests

The major outcome of a purposeful teaching and learning program for spelling is the increase in the number of words that students can spell accurately in their writing. The most effective way of gathering day to day information about students' spelling is through analysis of students' writing. Monitoring student progress is also done through using diagnostic tests, standardised, norm-referenced tests or teacher-devised tests.

Teachers take into consideration that many students are more successful spellers when they write in context than when they are given a test of single words. However, they also see a need for students to regularly learn words and be tested on them. When they construct tests they do so to:

- pretest a particular aspect of spelling to inform programming
- test students' understanding of what has been taught
- test students' ability to learn self-selected words
- meet community expectations.

When giving tests, teachers consider:

- whether the whole class, small groups or individual students will be given tests
- how to organise lessons to allow for easy administration of tests
- whether the words to be tested reflect the current knowledge that all students have about the spelling system
- if the list is challenging, whether it still provides opportunities for all students to be successful
- whether the spelling tests do identify what students are able to do
- what they will do about those students who are able to learn the words for a test, write them correctly in the test, and later write them incorrectly in their writing.

If spelling tests are used, it is the teachers' responsibility to teach students strategies for learning words and some of these are described in Chapter 6.

Commercial tests

Some teachers administer commercial tests that include standardised, norm-referenced and diagnostic tests. These tests provide baseline data about student performance that assist sites in making decisions about distribution of resources, planning and implementing relevant intervention programs. This baseline data can provide an estimate of whether students are spelling with an appropriate range for students of their age.

However, some classroom teachers consider that the usefulness of such tests in planning for the teaching of spelling is limited (Bolton & Snowball, 1985), and that more detailed information about students' spelling ability can be gathered from observations and analysis of student writing.

Teachers consider the following when making decisions about the use of standardised tests:

- tests can be a test of the ability of students to perform in test conditions rather than a test of students' knowledge of spelling
- lists of words may not be related to students' level of development, interests or experiences
- the tests may have words that students do not need to write
- a test score provides little direct evidence of the strategies that students use
- two or more students may achieve the same score, but the score may not give an indication of the difference in their ability to attempt to spell words. For example, *came* may be spelt as *kame*, *cam*, *kaym* by three different students- using different knowledge and strategies in attempting the word
- students have limited opportunity to proofread and make corrections while doing a test as they would for most writing
- frequently teachers do not use the test as a diagnostic tool to guide their future teaching, rather they only assign an age score to students.

NAPLAN

Students in years 3, 5, 7 & 9 in South Australia, participate in an externally administered literacy test. The results, for each student, accompanied by a descriptive comment on each question are then available for families. The spelling skills and strategies are assessed in the writing task and the Language Conventions test.

Writing task

Students' writing in the writing task is assessed for spelling according to the accuracy and difficulty of words.

Language Conventions

In the Spelling aspect of NAPLAN Language Conventions test asks students to identify and correct errors, as Table 2 shows.

Table 3 provides teachers with additional information about the spelling skills of students who are at a minimum standard.

Table 2: NAPLAN Writing task – Spelling criteria

Category descriptor

0 no conventional spelling

1 few examples of conventional spelling

2 correct spelling of
  – most simple words
  – some common words (errors evident in common words)

3 correct spelling of
  – most simple words
  – most common words

4 correct spelling of
  – simple words
  – most common words
  – some difficult words (errors do not outnumber correct spellings)

5 correct spelling of
  – simple words
  – most common words
  – at least 10 difficult words (errors do not outnumber correct spellings)

6 correct spelling of
  – all words
  – at least 10 difficult words
  – some challenging words
  NOTE: as the work is first draft writing, allowances can be made for very occasional (1 or 2) minor errors which should be disregarded when assigning this category

Additional information

Simple words
Short vowel single syllable words *(bad, fit, not)* with:
– consonant digraph *(shop ,thin ,much, chips)*
– consonant blends *(drop, clap, grass, bring)*
– double final consonants *(will, less)*
High frequency long vowel-syllable words *(name, park, good, school, feet, food)*

Common words
Single-syllable words with:
– harder two consonant blends *(crack, square)*
– three consonant blends *(stretch, catch, strung)*
– common long vowels *(face, sail, eight, mean, nice, fly, coke, use, close, again)*
Multisyllabic words with even stress patterns *(middle, litter, plastic, between, hospital)*
Compound words *(downstairs)*
Common homophones *(there/their, write/right, hear/here, brake/break)*
Suffixes that don't change the base word *(jumped, sadly, adults, happening)*
Common words with silent letters *(know, wrong, comb)*
Single-syllable words ending in *ould, ey, ough*
Most rule-driven words: drop e, double letter, change y to i *(having, spitting, heavier)*

Difficult words
Uneven stress patterns in multisyllabic words *(chocolate, mineral)*
Uncommon vowel patterns *(drought, hygiene)*
Difficult subject-specific content words *(obese)*
Difficult homophones *(practice/practise)*
Suffixes where base word changes *(generate/generation)*
Consonant alternation patters *(confident/confidence)*
Many three and four syllable words *(invisible, organise, community)*
Multisyllabic words ending in *tion, sion, ture, ible/able, ent/ant, ful*

Challenging words
Unusual consonant patterns *(guarantee)*
Longer words with unstressed syllables *(responsibility)*
Vowel alteration patterns *(brief to brevity, propose to proposition)*
Foreign words
Suffixes to words ending in w, c, or l *(physically, changeable, mathematician)*

Table 3: NAPLAN Language conventions criteria – minimum standard	
Year level	**Expectations for spelling at the minimum standard**
Year 3	Identify and correct errors in frequently used one-syllable words and some frequently used two-syllable words with double letters. For example, students can correct identified errors in: • frequently used one-syllable words • frequently used two-syllable words with regular spelling patterns.
Year 5	Identify and correct errors in most one- and two-syllable words with regular spelling patterns and some less frequently used words with double letters. For example, students can correct identified errors in: • frequently used one-syllable long vowel words • frequently used one-syllable words with irregular spelling patterns • common one-syllable verbs with tense markers • high frequency two-syllable words. For example, students can identify and correct errors in: • frequently used one-syllable words • high frequency compound words • less frequently used multi-syllable words with double letters.
Year 7	Identify and correct errors in most frequently used multi-syllable words with regular spelling patterns and some words with silent letters. For example, students can correct identified errors in: • less frequently used one-syllable words • less frequently used compound words with regular spelling patterns • two-syllable words with irregular spelling patterns • less frequently used multi-syllable adverbs. For example, students can identify and correct errors in: • one-syllable 'soft c' words • one-syllable words ending with silent letters • one-syllable words with irregular spelling patterns • frequently used compound words with irregular spelling patterns.
Year 9	Identify and correct errors in most multi-syllable words with regular spelling patterns and some less frequently used words with irregular spelling patterns. For example, students can correct identified errors in: • less frequently used one-syllable words with double or r-controlled vowels • less frequently used two-syllable words • multi-syllable words with the suffix 'ance'. For example, students can identify and correct errors in: • multi-syllable soft 'c' words • multi-syllable words with regular spelling patterns. one-syllable words ending with silent letters • one-syllable words with irregular spelling patterns • frequently used compound words with irregular spelling patterns.

Assessment for learning

Observations

Teacher observations

Systematic observation of students at work allows teachers to collect information based on criteria that is known and understood by students. As teachers observe they often find out incidental information about their students' spelling which is new or unexpected.

Observations should be planned and undertaken in a systematic way. Teachers decide on the number of students they will observe per day/week/session; some may choose to observe all students in a three week cycle. Records of observations become a useful tool in conferencing and reporting.

Table 4: Observation sheet proforma			
Observation sheet			
	Adding suffixes – *ing, ed, s*	**Adding prefixes –** *un, pre*	**Double consonant –** short vowel	**Digraphs –** *ou, ie*
Jon				
George				
Natalie				

Other teachers keep a sheet on each student and record their observations of the development of their students' spelling behaviour. As in all assessment procedures, students must be aware of what is being observed.

Through observation teachers can gather a range of information about students':

- use of strategies when they do not know the spelling of a word
- use of the skills and strategies that have been taught
- acceptance of positive criticism about their spelling
- co-operation and collaboration on spelling tasks.

Student observations

In peer observation, students can:

- observe a partner using a particular spelling skill or strategy, for example, using a spell checker to find the spelling of a certain word.

In self-assessment, students can:

- describe how they solved a particular spelling problem
- reflect on what they have learnt in spelling
- plan for further improvement.

Analysing spelling errors from students' writing

The WRAP (Education Department of SA, 1992) is one resource that has been used to anaylse spelling in the context of students' writing. One of the aspects analysed was the categories of spelling errors which students make. The percentage of spelling accuracy of pieces of writing was also calculated. Some teachers have taken this up in their classrooms (see Tables 5 and 6).

Teachers work with draft writing and undertake this activity two or three times a year. It enables teachers to gather information about how students are applying spelling information and to plan for further explicit teaching. Teachers might analyse, more frequently, writing of students who demonstrate a limited knowledge of the spelling system. In the secondary setting, teachers might select a range of writing from three students, for example, a successful speller and two transitional spellers of differing ability. The teachers analyse the writing and the results are then used as a reference point when reading other students' work, and as a guide for their teaching.

Teachers have found that their perceptions about a particular student's ability to spell are often challenged when they work out percentages. They find that when they tell students the percentage of accuracy, and explain what this means, that students who perceive themselves to be poor spellers often become more positive about their ability to spell. Parents/caregivers similarly shift their perceptions.

Table 5: Categories of errors using WRAP (see Appendix 4 for detailed descriptions of these terms)		
Categories of errors using WRAP		
a. Contractions	i. Word substitutions	q. Split words (1 as 2)
b. Words run together	j. Incorrect prefix	r. Omitted double letter
c. Silent letters	k. Incorrect suffix	s. Added double letter
d. Diphthong/Digraph	l. Letter reversals	t. Apostrophe of
e. Diacritic 'e'	m. Omitted letters	u. Possession
f. Letters in wrong order	n. Grammar	v. Mispronunciations
g. Phonetic mistakes	o. Added letters	
h. Homophones	p. Wrong letters	

Table 6: Sample recording sheet using WRAP							
Recording sheet							
Name:							
Date:							
Intended word	**Actual word**	**Category of error**	**Total words**	**Total errors**	**Total mistakes**	**Total correct**	**% correct**

Total errors = the number of errors. If a word, (e.g., *said)*, is written incorrectly three times, but each time the same spelling is used (e.g., *sed)*, this is counted as one error. If, however, it is written *sed*, *siad*, *zed*, these are counted as three errors.

Total mistakes = the total number of mistakes, regardless of whether errors are repeated or not

Total correct = total words – total mistakes

% correct = total correct as a % of total words

Product analysis and assessment of one sample using WRAP

The following piece of student writing has been analysed using the WRAP tools.

Figure 3: Unedited text

Table 7: Analysis of a student work sample using the WRAP tool

Intended word	Actual word	Category of error	Total words	Total errors	Total mistakes	Total correct	% correct
getting	geting	m	125	20	20	104	84%
screaming	screming	d					
on	of	p					
knew	new	c/h					
just	yust	p					
finished	finshed	m					
heard	hered	d					
scream	screm	d					
younger	yunger	p/d					
been	be	n					
wouldn't	whoulnt	o					
taken	tacken	d					
any	eney	p					
her	hear	o					
living	liveing	k					
dripping	driping	m					
folded	foled	m					
off	of	m					
hey	hay	g					
grabbed	graped	u/p					

Comments

Difficulties (Major)

– adding suffixes

– selecting correct diphthong/digraph

– omitting letter (auditory)

Teaching points

(A) Check out which digraphs/diphthongs are used consistently

Plan: phonetic, kinaesthetic activities

(B) Check out what is known about adding suffixes

Plan: morphemic and generalisations for adding suffixes

(C) Plan for auditory activities

The Australian Curriculum for English

An analysis of student texts using the Australian Curriculum for English can also provide useful information for learning. While one piece of writing is not enough to gain an accurate picture of achievement in spelling, it can still be useful.

The text in figure 3 indicates the student can:

- spell some common words accurately
- use letters, or letter combinations to represent most syllables in words
- use knowledge of letter patterns and critical features of words to attempt to spell words
- sometimes combine phonetic, visual and morphemic strategies used for spelling words
- self-correct words when writing.

This piece of writing suggests that in relationship to spelling the student can demonstrate achievements equivalent to Year 4. Consequently, the future learning, taken from the gaps in the year 4 criterion, and new learning from the year 5 criterion, includes:

- phonological knowledge – spelling patterns (e.g., vowel sounds, single consonant, silent letters)
    - rimes
    - word sorts
    - word building
    - card games
- morphemic knowledge
    - adding prefixes
    - adding suffixes
    - forming generalisations.

Assessment as learning

Conferencing

Teachers who use spelling conferences with their students set aside time to do so on a regular basis. If there are students whose progress concerns them they may hold more frequent conferences. Conferences might only last a few minutes. Teachers encourage students to prepare for conferences by asking their students to bring a piece of work with them in which they have identified some aspect of spelling they are pleased with and an aspect they want to improve. In many classes, students hold peer conferences about their spelling as part of their writing process.

Teachers' approach to conferencing varies according to the particular information they want to gather about their students' learning. Teachers might use it to find out more specific information about a particular strategy a student is using. For example, teachers might focus on how a student uses a dictionary to find the word family for hope (e.g., *hoping, hoped, hopeful, hopeless)* and to talk to the student about how they add ing to words like hope.

One teacher uses the list in Table 8, which was negotiated with her students, as a starting point for conferencing.

Table 8: Starting points for conferencing

Good Spellers

- Look in dictionaries
- Practise often
- Learn words using look, say, cover write, check
- Take a photograph of words with your brain
- Test themselves
- Read and write words all the time
- Learn from mistakes
- Look at words and remember their shapes
- Sing words and make up rhymes to remember words
- Learn about words
- Break words into syllables
- Keep on trying.

Through conferencing, teachers are able to:

- assess a student's needs and plan for specific teaching and learning
- give students feedback on their achievements
- help students plan for spelling improvement.

In peer conferencing, students can assess:

- each other's understanding of spelling strategies
- each other's use of resources.

Student self-assessment

In self-assessment, students can:

- set and review their goals for spelling
- measure improvement in their spelling
- explore their own skills, knowledge and understanding
- decide the assistance they need to improve spelling skills.

When students are active participants in the assessment of their learning, they are encouraged to monitor the development of their own skills, knowledge and understanding. One way in which a teacher can learn what their students know about spelling is to devise a questionnaire for them. The questions will vary according to students' spelling development.

Confessions of a speller was developed for an upper primary class. Students were asked to respond to it at the beginning of the year and again towards the end. At the start of the year the information helped the teacher to plan an effective teaching and learning program. Near the end of the year the information allowed the teacher and students to assess the development of knowledge, skills and understandings of spelling as a result of the teaching and learning program. Some students may have difficulty if asked to do this as a written reflection and teachers might find it is better to use the questions as a part of an oral interview.

Teachers find that the quality of the relationship between students and teacher and how teachers engage students in discussion prior to the questionnaire or oral interview influence the outcomes of this assessment method.

Table 9: Confessions of a speller

Confessions of a speller

1. When you are writing and come to a word that you don't know how to spell,
   - do you sound out the word? _____
   - think of a word that sounds the same?
   - look for the correct spelling? _____
   - write the word a few times and pick out the one that looks right? _____
   - ask someone? _____

2. If someone asked you to help them spell a word, how would you help them? _____
   _____

3. How do you learn to spell new words?
   - use look, write, cover, check? _____
   - think of other words that look the same?
   - use sayings to help you remember, e.g., piece of pie?
   - write the word many times?
   - spell the word aloud to someone a few times?
   - trace the word? _____

4. If you were asked to write a list of words to learn, where would you find the words for your list?

5. Copy this word—cantaloupe.
   Explain how you copied this word.
   _____
   _____

7. What problems, if any, do you have using the spell checker on your computer? _____
   _____

Case study of teacher analysis of confessions of a speller: Year 6–7 class

Findings and implications from analysis of confessions of a speller

From students' responses to this questionnaire, the teacher of one upper primary class was able to identify the range of strategies that students use to spell unfamiliar words:

- sounding out words
- looking for correct spelling
- writing a few versions of the word and selecting the one that looked right
- asking someone else.

The teacher also noted that no student was using the analogy strategy, that is, thinking of another word that sounded the same to recall spelling. The teacher chose to work with all students on this strategy and included word sorting, making word chains, and literature searching activities as tools for students to understand the strategy. Students were then asked to find a word they could use as an analogy for a word they were learning in preparation for a test.

The students used the following strategies to learn to spell new words:

- only two students were consistently using a look, cover, write, check approach; 12 students used it occasionally; 14 students never used it
- one student used analogy; eight occasionally; the rest never
- nine students used memory joggers (mnemonics); six sometimes; the remainder never
- six students wrote the word several times; seven sometimes; the rest never
- ten students spelt the words aloud; seven sometimes; the rest never
- one student traced words; two sometimes; the remainder never.

One implication for the teacher is that most students need to be explicitly taught a range of strategies for learning to spell a new word. The teacher realised that the ability of students to adopt and use a strategy independently took much longer than she had anticipated.

The sources that students used to find new words to learn:

- dictionaries
- parents, friends
- corrections in their work books
- novels
- non-fiction books and indices
- words around the classroom
- own collection of personal interest words.

The teacher was pleased at the range of sources that were used, but believed that some students, who were only using one or two sources, would benefit from a whole class discussion about where to choose words. This was done and then time was made available in class for students to select words for their lists.

How students copied words:

- letter by letter
- breaking it into pronounceable word parts
- looking for small words
- breaking it up into groups of three letters
- spelling aloud syllable by syllable
- a large number tried to memorise it as a single word or two parts.

When the teacher closely examined which students used particular strategies she found that the students with most spelling difficulties were only copying letter by letter. As a result she worked with those students on developing skills to chunk letter clusters, for example, she introduced onset and rime activities. She also worked with those students to further develop their linking of letters into clusters using South Australian modern cursive handwriting.

The difficulties students were having using spell checker programs included:
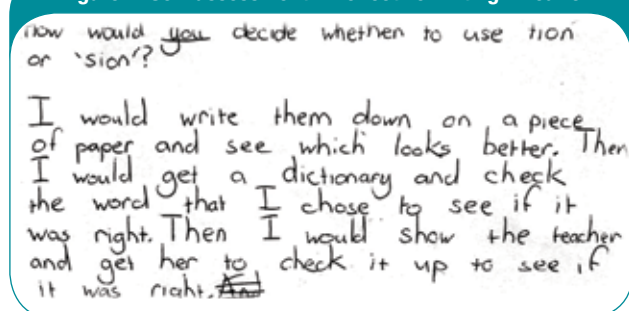
- students believed that American spelling is always suggested
- not recognising own name, place names and made up names as correct
- some words not in dictionary e.g., acronyms, portmanteau words
- deciding which alternative to use
- not recognising some errors (homonyms, etc.).

The teacher used class discussions about the use of the spell checker and students built up a class list of how to successfully cope with their problems. She worked with a school services officer to implement a mini-course to teach students how to use the spell checker effectively.

Reflective writing

Some teachers ask students to regularly reflect on their learning in a journal. They might ask their students to set goals for their spelling and reflect on how well they met them. Students record the strategies they use to spell unknown words and the help they need from their teacher or peer. Sometimes teachers might ask students to write what they know and understand about the spelling skill they have been exploring in lesson time.
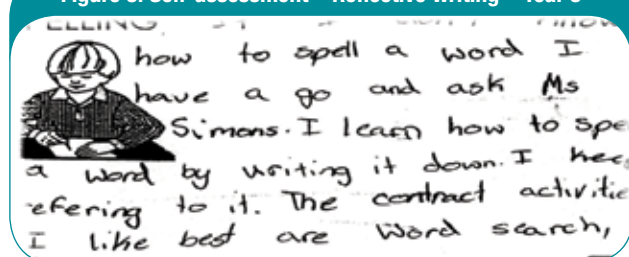
Figure 4: Self-assessment – Reflective writing – Year 6

how would you decide whether to use 'tion' or 'sion'?

I would write them down on a piece of paper and see which looks better. Then I would get a dictionary and check the word that I chose to see if it was right. Then I would show the teacher and get her to check it up to see if it was right.

Figure 5: Self-assessment – Reflective writing – Year 5

how to spell a word I have a go and ask Ms Simons. I learn how to spell a word by writing it down. I need refering to it. The contract activities I like best are Word search,

Record keeping

The purpose of maintaining records of students' progress is to:

- inform future teaching and learning
- monitor student progress
- report student progress and achievement to students, teachers, families
- report systematically.

Teachers only need to maintain sufficient ongoing records to support their professional judgement and for assessment purposes. Any of the ideas for assessing described previously in this chapter could be the basis for records that teachers maintain.

At the beginning of the year, teachers need to be strategic and plan the assessment techniques they will use, as this will determine the records they maintain. After considering the outcomes for spelling, teachers establish the criteria about which they will gather information. Teachers and students consider the records that the teacher maintains and the ones that students will maintain.

Teachers use professional judgement as they decide whether enough information about a student's achievement in regard to particular criteria has been gathered. For example, if a student consistently adds *ing/ed* to morphemes and this is a criterion that has previously been established, then the teacher would not keep recording this. Teachers who reflect periodically on the quality of the information they gather are in a position to adjust their assessing and record keeping to meet the needs of students, parent and caregivers, and teachers.

When considering the types of records to be kept, teachers should consider the following:

- Will any student be disadvantaged by using this technique? If so, how? What can be done?
- Will student learning outcomes be enhanced by recording information in this form? If not, what other information is needed?
- What aspect of student information is being recorded: knowledge, attitude, skills, work habits?
- Are students involved in the process? How?
- Will the information be useful for reporting progress, planning or diagnostic purposes?
- If a grade or mark is recorded, how does it reflect what the student has achieved?

Reporting to families

Reporting by teachers

Teachers are involved in reporting to families, students and systems. Reporting can include face to face discussions, student–parent–teacher discussions and written descriptive comments. Teachers in all levels of schooling and in all areas of study should comment on spelling as part of writing. By using annotated work samples, teachers are able to explain the skills and strategies a student has used and what the future teaching and learning directions in spelling will be. Teachers are able to use their records and work samples to demonstrate the progress that students are making and, if requested, are in a position to provide advice to parents about how they are able to help their child at home.

Teaching and learning activities

This chapter includes the following sections:

Planning for spelling activities and strategies

As outlined in Chapter 2, activities supporting the developmental stages and spelling strategies need to be planned for at the same time. The following table shows an overview of the sequencing of this learning.

Table 1: Developmental stages and strategies				
Emergent Stage	**Semi-phonetic Stage**	**Phonetic Stage**	**Transitional Stage**	**Proficient Stage**
Phonemic Activities →				
		Phonetic Activities (onset & rimes, digraphs, letter strings, homonyms) →		
		Visual Activities (patterns, silent letters, mnenomics, proof reading) →		
		Morphemic Activities (suffixes, prefixes, rules/generalisations, compound words, apostrophes) →		
		Etymological Activities (Latin, Greek & French roots of words, acronyms, portmanteau words) →		
	Strategy: Spell it like it sounds →			
			Strategy: Spell it by pattern →	
		Strategy: Spell it by rule/generalisation →		
		Strategy: Spell it by analogy, chunking, copying from secondary resource →		
		Strategy: Spell from memory (mnemonics and automaticity) →		

The teaching and learning activities in this chapter are organised as follows:

- activities for emergent and semi-phonetic spellers
- activities for phonetic, transitional and proficient spellers
  - phonetic
  - visual
  - morphemic
  - etymological.

The terms phonetic, transitional and proficient spellers are used to indicate the stage at which students are spelling. The indicators for each stage can be found in Chapter 2. When similar activities are suggested across stages, they have been organised side by side. This will support teachers, who will certainly have spellers at more than one stage in their classroom, to choose an activity and adapt it to suit the learning needs of all students.

Systematic and explicit teaching of spelling

Teachers planning a structured and systematic approach to spelling that will support all students to develop skills and knowledge, constantly reflect on what students can do, know and understand. They introduce a new strategy, skill or understanding when:

- some students are beginning to use the strategy in their writing
- there is evidence of the use of a particular strategy in their oral language
- the vocabulary of a particular topic provides an opportunity to do so.

When teachers provide explicit teaching of spelling knowledge and strategies in all areas of study they enable students to practise and refine these. They also provide evidence to students that the development of accurate spelling is a valued skill in all areas of study.

The following is an approach to the explicit teaching of spelling:

Figure 1: Explicit teaching of spelling (DECS, 2010)

Review, Use, Predict

Review prior knowledge about words and spelling
Use vocabulary with new pattern orally in context
Predict the spelling pattern based on cues

Model, Identify, Contrast

Provide text or words with target spelling patterns
Identify the spelling patterns
Model spelling with the patterns
Contrast with other spelling patterns

Joint and independent learning

Whole class and group activities to practise the new spelling patterns/generalisations
Independent activities

Assess

Revise new learning
Self assess progress
Reflect on learning

Activities for emergent and semi-phonetic spellers

Students should first be taught letter names so that they have a consistent label for each letter even though letters may be pronounced different ways in different words. Students who have knowledge of the names of the letters of the alphabet are able to develop the language to talk about spelling and understand what the teacher is talking about in spelling and reading sessions. They will be better able to understand the following concepts:

- words are made up of letters
- a letter/letters represent sounds within words
- a letter/letters can represent different sounds
- some sounds can be represented by different letters.

Students have varied understandings of spelling. Some students may not know the names of the letters of the alphabet, others may be confused between the name of letters and the sounds they make, while some students may already have internalised the names of the letters. After identifying what students know and can do, teachers provide students, who do not know or are unsure of the names, with opportunities to learn the names of the letters of the alphabet, that is, *ay, bee, cee, dee, ee … zed*.

Teachers should decide on the sequence for learning the letter names, as some letters may be of more importance to some students and to the learning program of the class than others. Students might learn the letters of their names in English, the letters in the names of Australian animals in studies of society and environment, and the names of letters in numbers in mathematics.

Both upper and lower case letters are taught simultaneously. Many students beginning school are able to identify both the upper and lower case of many letters in a variety of fonts and that once familiar with the names have no difficulty in naming letters.

Spelling is taught in all areas of study as part of writing. Structured regular lessons where students are actively learning the names of the letters can be of benefit to all. A variety of whole-class teaching through the use of modelled writing and shared book experiences as well as individual or small group activities need to be included in the teaching and learning program. Teachers provide opportunities for students to practise new skills through specific learning activities and then in their writing. They provide specific and supportive feedback to students as they write.

Teachers who regularly monitor the progress of students in learning particular letters of the alphabet, are able to provide relevant and specific instruction, support and opportunities for each student.

Learning the names of the letters of the alphabet

To facilitate student learning, teachers provide a range of activities that involve students in using aural, visual, thinking and kinaesthetic skills. Focusing on letter names in all areas of study maximises students' opportunities to learn the letter names. Teachers and students also talk about the sounds that letters make in particular words.

The classroom environment should be rich in print labels for objects, for example, names on lockers, trays, etc. Teachers who engage students in active discussion about these find that students regularly refer to the labels when they are writing.

Table 2: Strategies – Spell it like it sounds, spell it from memory for emergent and semi-phonetic spellers

Strategies – Spell it like it sounds, spell it from memory

Catalogues

Catalogues as a source of information about letters is a useful starting point. They are the most familiar shared text for many students. Letters are presented in a variety of fonts and as capital and lower case.

A starting point might be to find the letter, or words containing that letter, that is the same as the initial letter of a student's name. Whether a student finds single letters or whole words will depend on a student's prior knowledge of the spelling system.

In one teacher's classroom:

To introduce students to initial sounds, ie we used 'f' on a Friday.
- *We played 'What am I?' to think of words that began with 'f'*
- *Students made the letter with playdough*
- *We sorted various photocopied pictures*
- *We made a list of words that began with 'f'*
- *We used junk mail to find pictures of things and words beginning with 'f'.*

Hopscotch

Play hopscotch with the letters written in the spaces, or setting out letters of the alphabet (written on card) and asking students to play hopscotch as they identify and say the names of letters. The letters could be a collection of the ones they have already learnt; vowels and consonants could be used separately; or all letters of the alphabet could be used in alphabetic sequence.

Alphabet books

Reading commercial alphabet books to students could be a stimulus for discussion about the names of the letters and could lead to students compiling their own alphabet books. Using a separate page for each letter will allow students to make additions as they find more words and pictures for a particular letter.

Teachers might also choose to have students compile a book for each letter, or a group of letters to add to the class reading resources. For example the 'l' book, 'm' book or 'k' book, or the 'm, n, o, p' book.

Jigsaws

Jigsaws that have letters in alphabetic order, a mixture of upper case and lower case (or just one case) support students to learn alphabetic order and the names of the letters. After completing the jigsaw the teacher asks groups of students to 'read' their jigsaw. Encouraging students to use visual aids in the classroom such as alphabet charts to check out their work rather than rely solely on teacher feedback supports development of thinking and visual skills.

Table 2: Strategies – Spell it like it sounds, spell it from memory for emergent and semi-phonetic spellers *(continued)*

Poetry, songs

Students enjoy the rhythms of language and many come to preschool and/or school already knowing a variety of jingles, nursery rhymes and songs that are based in their home literacies. These could be starting points for teachers and students to innovate and develop their own alphabet raps and rhymes which support students to learn the names of the letters of the alphabet.

Literature search

As teachers use Big Books to introduce students to the valued texts, they finger point to the words when they read. They engage their students in a search for and discussion about letters. Following the activity, the teacher might give a copy of a page to pairs of students to ring or highlight a particular letter.

The teacher might then chart words that students found with a particular letter and add illustrations so students can read the word. Students would be encouraged to add more words as they find that letter in their own reading.

In one teacher's classroom:

After our 'Big News' sessions each day, I write about what one child has told the class. We then used this writing to examine various aspects of written language. Using books in the classroom we:

- *found words with 'f' in them.*
- *counted the letter 'e'*
- *looked at some words that looked/sounded the same*
- *found commonly-used words.*

Letter games/activities

Spinning wheel games, or letters written onto large circles marked on the playground

Letter bingo games

I spy

Snap, Fish

Letter walks—walking around a local shopping centre and naming the letters they recognise.

Sorting, classifying and matching letter names

When students have developed a knowledge of some letter names of the alphabet, sorting, classifying and matching activities could be introduced. Sets of alphabet cards, alphabet blocks, magnetic letters, plastic/foam letters are useful materials to support these activities.

Teachers encourage thinking aloud by students as they engage in their learning. They expect students to talk about the letters as they explain what they have done.

Kinaesthetic activities

Kinaesthetic activities, (when students use parts of their body,) in particular their fingers, to feel the shape of letters are important for developing spellers, e.g.,

- finger tracing over letters
- making letters from sandpaper, wall paper, foil, glue and sand, jelly crystals etc.
- modelling letters with playdough, clay, plasticine, pipe cleaners etc.
- finger drawing letters
- drawing large letters onto playground surfaces.

All of these activities are accompanied by students talking about their learning and using the names of letters.

Learning the sounds of letters in words (phonemes)

An important part of learning to spell is the ability to identify sounds (phonemes) within words, and to be able to translate those sounds into letters. Westwood (2010) points out that, in order to spell, young students in the early years of schooling may use auditory perception to a much greater extent than older students simply because they have not yet had much exposure to print through daily reading and writing. Students' early invented spelling illustrates their dependence on sound values when attempting to write a word. The majority of activities for learning the sounds of letters are based on students using auditory skills to identify sounds individually and as parts of words.

As students engage in learning sound–symbol relationships they begin to understand that a letter can represent different sounds in different words. Consonant sounds are far more consistent than vowel sounds and are probably easier for students to learn. As the *letters j, k, l, m, n, p, b, h, r, v, w* when used at the beginning of a word only make one sound, teachers might consider using them to begin teaching sounds. As vowel sounds vary so much according to the letter or letters that follow them, teachers might choose to teach these sounds after many consonants have been learnt.

Clear pronunciation will assist students in developing knowledge of sound–symbol relationships. Many students are supported by teachers pronouncing words very slowly as students learn to distinguish the letter sounds they can hear, as in *bbb aaa ttt* = bat. As they provide models of writing to accompany these activities, students begin to develop a focused visual knowledge of words. All of these activities include students writing and participating in other kinaesthetic activities.

To help students distinguish between letter names and letter sounds the maxim '***Look*** for the pattern, ***listen*** for the sound' might be introduced and constantly used.

Table 3: Strategies – Learning sound–symbol relationships for emergent and semi-phonetic spellers

Strategies – Learning sound–symbol relationships

Rhymes

Strategy spell it like it sounds

When students learn rhymes they begin to learn the sequence of letters that are common to rhyming words. Students are often familiar with rhymes when they begin preschool and/or school, they enjoy them and teachers could consider developing rhymes as a way of introducing letter sounds.

Make rhymes with a letter name, e.g., /d/ *free, see, she*
Add rhyming words to a number, e.g., *two, zoo, shoe*
Make up rhymes with student names, e.g., /ee/ *Kristie, Danny, tree, free.*

In one teacher's classroom

We do a lot of 'playing' with the sounds in our language.
One game we play is Snap.
- Students use pictures to find pairs of words that sound the same
- We look at the patterns (or otherwise) in the spelling of these words
- We think of more words that rhyme and look at how to spell them using the patterns we know.

Board/Card games

Strategy spell it like it sounds, spell it by pattern

Games such as Tic Tac Toe, Concentration, Fish, Snap, Snakes and Ladders, Bingo can be adapted by teachers to facilitate students developing a knowledge of sound–symbol relationships.

Class lists

Strategy spell it like it sounds

Teachers support students to identify particular sounds as they listen to each other talk, and as they listen to the teacher reading. Class lists for each sound can be developed. Teachers and students sort the words according to the placement of the letter sound in words.

These lists might be of students' names
e.g., Tabatha, Antony, Tania, Steven, Trevor
or animals and reptiles

koala	snake
kangaroo	crocodile
crocodile	chickens
cows	

Teachers constantly refer students to the lists and explicitly use them. Regularly changing the spot for lists encourages students to think about their learning and not just rely on where a particular list should be, and where on the list a particular letter might be.

Alliteration

Strategy spell it like it sounds

Alliterations are phrases/sentences in which all words begin with the same sound, as in Betty bats balls and balloons back to Ben.

Teachers could introduce some to their class and then work with the students to develop their own.

These could be published on charts and as Big Books for students to access for their spelling.

Sort, classify letter sounds

Strategy spell it like it sounds

Students could be given a number of words and asked to sort the words:
- according to a certain sound
- any way they can – then to discuss how they sorted the words
- to identify the commonality.

Making new words

Strategy spell it like it sounds, spell it by pattern

Teachers select a word that students know and, as a class or small group, substitute a letter at a time to make a new word. It is important that students develop such lists and not be presented with lists already completed.

bat	pet	man	cake
bet	let	mat	make
but	set	mad	bake

Making sound books/chart

Strategy spell it like it sounds

Once students are familiar with a sound and the letters that can represent the sound, a class book or chart could be made of the sound.

Alternatively, a class reference Big Book could be made that included several sounds. Adding illustrations for words can trigger recognition of words and sounds. (Junk mail, magazines, computer graphics, etc. are ideal sources of illustrations.)

Kinaesthetic

Clapping when a particular letter sound is heard in words.

Any of the activities described in previous chapter for learning letter names.

Activities for phonetic, transitional and proficient spellers

Phonetic activities

Teaching more spelling knowledge

As for beginning spellers, a systematic and structured teaching and learning program will support all students to further develop their knowledge, skills and understandings of the spelling system. Teaching about the spelling system should not be left to chance. Teachers who observe students' writing, oral language and curiosity about words from their reading will have strong indicators of the appropriate time to introduce new phonetic, visual and morphemic strategies. For instance, knowledge that many students are beginning to develop generalisations for adding suffixes or prefixes will indicate a need to plan for the effective teaching and learning of them. A teacher's careful analysis of student writing may also reveal that some spelling skills already taught to students may need to be reintroduced using a different approach. The selection of a variety of activities from each of the phonic, morphemic and visual strategies will support all students to maximise their opportunities to learn to spell.

Phonetic (sound–symbol) relationships

Explicit teaching is necessary to ensure that all students gradually build a concept of how the sound–symbol relationship works. Teachers, at all levels of schooling, focus on these relationships as part of shared reading experiences. Students' writing will demonstrate how they represent sounds with different letters. This will inform teachers as they plan their teaching and learning program. Included in this chapter are activities that teachers can adapt to teach onsets, rimes, letter strings, diphthongs, digraphs, and syllabification. These activities will support students in developing their ability to identify each speech sound (phoneme) in a word.

Onsets and rimes Strategy: *Spell it like a pattern*

In single syllable words, initial consonant or consonant blends are sometimes known as onsets, and final consonant blends that are preceded by a vowel are known as rimes. Stahl (1992) suggests that using onsets and rimes is an alternative to teaching rules about sounds that digraphs make. For instance, the /*ea*/ in the *ean, each, eam, eap, east* rime, is always a long vowel sound, in *ead* it is usually a long vowel (but there are exceptions as in bread, dread). It may be easier for students to learn to read the rime and use context to decode the exceptions.

At least 500 words can be derived from the 36 rimes in Table 4.

Table 4: Common rimes			
ack	ail	ain	ake
all	an	ank	ap
at	ate	aw	ay
ell	est	ice	ide
ill	in	ine	ing
ip	ir	ock	oke
or	ore	uck	ug
unk	ash	ight	op
ale	eat	ink	ump

Digraphs

Digraphs are two-letter clusters that operate as a single unit to represent a single sound. Consonant digraphs are *sh, th, ph, ch, wh, qu*. Some examples of vowel digraphs and diphthongs include *ai, au, ay, ea, ie, ei, ey, oa, oe, oi, ee, oo, oy, ui, ou, ue*.

Letter strings/word clusters

Letter strings/clusters of letters are groups of letters that are common to many word families. They may form a syllable, a prefix or suffix of words. There is evidence to suggest that rather than teaching students to spell letter by letter teachers should concentrate on the functional letter strings/clusters of letters which form common units in many words, as in Table 4. It may be beneficial for students to be taught to link those strings together in words from the beginning of handwriting experiences (Westwood 2010).

Word sorts

The purpose of word sorts is to promote fluency and accuracy in identifying recurring patterns (Schlagal & Schlagal, 1992). In spelling, they can be used to develop knowledge about any spelling strategy. In word sorting, it is important for students to look at and pronounce the words and engage in follow-up writing sessions. Words are written on cards, students practise looking and saying the word and then sorting them. How to sort them could be decided by the teacher, or left to students to sort and describe how they sorted the words.

Table 5: Word sorts activities for phonetic, transitional and proficient spellers

Phonetic spellers	Transitional spellers	Proficient spellers
Word sorts – *Strategy spell it like it sounds* The teacher asks students to sort the words according to the rime, e.g., pen peg men leg wren beg then Meg Other two-letter rimes: *ab, ag, am, an, ap, at, ax, ed, eg, en, et, ib, id, in, ig, ip, it, ob, od, og, op, ot, ox, ub, ug, um, un, up, ut.* These lists can be extended as students suggest new words for the word families. More word families could be added to the body of words once students are comfortable with the known lists of words. Students engage in writing activities following the word sorts. Teachers could ask students to sort words in other ways, e.g., by initial letter/letter string, number of syllables, digraphs, etc. Alternatively students could be given a number of words and asked to sort the words and describe how and why they have sorted them in that way.	**Word sorts –** *Strategy spell it like a pattern* Teachers continue to use word sorts using rimes from Table 4 or others that students are using in their writing, e.g., *arch, urn, ave, ime, ome.* Word sorts could also be used with words containing digraphs. An outcome of this activity could be that students begin to make generalisations about how to build word families. The activity also supports students to recall and write unfamiliar words by analogy, ie knowing how to spell game can assist students to recall how to spell *came, tame, shame, ashamed, became.*	**Word sorts –** *Strategies spell it like a pattern, spell it like a generalisation* When teachers notice that some spellers are making common errors related to letter strings, digraphs and onset/rimes, they consider using word sorts to help students revise their knowledge. Letter strings like *dge, ance/ence, ence/ense, ise/ice, ent/ant, ible/able* and double letter words form groups of words that independent spellers often continue to have difficulty with. An outcome of word sorting for this group of students would be a restating of the generalisations for when to use an appropriate letter string.

Word building

Gunning (1995) found that there were two most common strategies students use to decode words. The first was to pronounce the beginning consonant and then the whole word (as in *h–hat, fr–frog*), and secondly, using pronounceable word parts to construct the entire word (as in smash might be read as *mash–smash* or *ash–mash– smash* or *as–ash–mash–smash*).

He also cites research that suggests that both students and adults tend to cluster letters into spelling patterns. Word building is a system for teaching phonics that capitalises on students' tendency to seek out the pronounceable parts of words.

Table 6: Word building activities for phonetic, transitional and proficient spellers

Phonetic spellers	Transitional spellers	Proficient spellers
Word building – *Strategies spell it like it sounds, spell it like a pattern*	**Word building –** *Strategies spell it like a pattern, spell it like a generalisation*	**Word building –** *Strategies spell it like a pattern, spell it like a generalisation, spell it with analogy*

Phonetic spellers column:

This activity could be used with teaching onsets and rimes, digraphs or letter strings. Teacher could introduce a rime and demonstrate how to add an onset, or vice versa, to make a new word. Students could then suggest new words or use alphabet/onset/rime/digraph cards as prompts to make new words, e.g.,

…+ ack   **br + …**

back	brag
black	brat
Jack	brick
lack	brain
pack	brake
sack	brave
shack	bring
smack	bright
tack	broke
track	

Other activities are:

• word snakes

• writing words in shape

Transitional spellers column:

This activity could be used as for phonetic spellers using digraphs, onsets and rime, and letter strings as in words sorts. Teachers could introduce this as a problem-solving activity starting with a two-letter word, adding one letter at a time to make new words to form a triangle of words, or similarly adding a syllable at a time.

on	bat
one	battle
hone	battleship
phone	battleships

This activity also lends itself to being used for:

• /war/wor/won/was/ letter strings where the vowel has an irregular sound

• words that have an /ar/ sound but do not use the *ar* letter pattern as in *fast, bath*

• words where the /u/ sound is made by an *o* as in *Monday, worry*.

Proficient spellers column:

Teachers could use this activity in a similar way to that described as for transitional spellers—using letter strings and three-letter digraphs, e.g., *eau, iou*, double letter words, etc.

Table 7: Word sort and search activities for phonetic, transitional and proficient spellers

Phonetic spellers	Transitional spellers	Proficient spellers
Sorting and classifying *Strategies spell it like it sounds spell it like a pattern*	**Word searches –** *Strategies spell it like a pattern, spell it like a generalisation*	**Word searches –** *Strategies spell it like a pattern, spell it like a generalisation, spell it with analogy*

Phonetic spellers

Sorting and classifying

Strategies spell it like it sounds spell it like a pattern

Use pictures/objects and sort by onset/rime/digraph/letter string

Use a collection of pictures from junk mail, newspapers, magazines, computer graphics, etc. An alternative is to have a collection of toys, objects. Make sure that there are matching pairs according to the onset/rime, digraph or letter string.

Students find a matching pair. Students should say the names of the pictures or objects as a support when finding matching pairs. Students write their pairs of words. These could then be pasted onto class charts, or into class or individual books.

Transitional spellers

Word searches –

Strategies spell it like a pattern, spell it like a generalisation

Using mass media and everyday texts, etc., students either individually, or in pairs, search for words that fit a particular sound pattern. They copy or cut out the words.

As a whole class these are put onto a class list. Teacher leads a discussion about a particular word family and any generalisations that can be made.

1. Look at the word *pineapple*.
2. Reading from left to right list all the words that can be made from letters in the order they appear in pineapple, e.g., *pin, pine, in, pip, pile, pale*, etc.
3. Use the letters from pineapple to make as many words as possible. All words must contain a letter e. No proper nouns can be used. There should be a nine letter word made. In one class where students were given this task, students engaged in a discussion about the strategies they used. Collectively they used the following strategies:
   - *unjumbled letters in my head*
   - *tried to find words beginning with p*
   - *made up words with letters to see if they made sense*
   - *made small words and tried to put them together*
   - *made three-letter words and added e to make new words*
   - *looked for ea, ie, i–e, a–e words*
   - *looked across letters to see if any words could be made from the letters in their order*
   - *swap letters around on paper*
   - *made pipe and then swapped another letter for each p*
   - *separate consonants and vowels into two rows and look for words*
   - *find endings and put new beginnings.*

Proficient spellers

Word searches –

Strategies spell it like a pattern, spell it like a generalisation, spell it with analogy

Teachers could use the activities described for transitional spellers.

They might focus on words that are relevant to their area/s of study and choose texts related to the area of study.

Table 8 : Rhymes, alliteration, onomatopoeia activities for phonetic, transitional and proficient spellers		
Phonetic spellers	**Transitional spellers**	**Proficient spellers**
Rhymes, alliteration, onomatopoeia *Strategies spell it like it sounds, spell it like a pattern*	**Rhymes, alliteration, onomatopoeia** *Strategies spell it like a pattern, spell it like a generalisation*	**Rhymes, alliteration, onomatopoeia** *Strategies spell it like a generalisation spell it like an analogy*
Rhymes—Teachers use written models of rhymes, which students innovate, using rhyming words that are the focus for their lessons. The new rhymes could be made into charts or Big Books as a reading and spelling resource. **Alliteration**—using models, students develop their own alliterative phrases and sentences. **Onomatopoeia**—words that sound like the objects they name as in *hiss, crunch*. Teachers and students could develop lists of these words as students write them or read them using graphics and in some way highlight the onset/ rime/string or digraph.	• Rhyming relays form teams and in turns write onto board words that rhyme with a given sound, e.g., *joke, coke, mopoke* • Rhyming pairs teams of students write rhyming pairs in a given time, e.g., *light–bright, monkey–funky* • Find words with same rhyming sound, different letter patterns, e.g., *toe, so, sew, crow* • Students write their own poems with rhyming words (use a variety of poetry models so that students don't always have to write rhyming couplets) • Students write their own alliterations, tongue twisters • Students create their own riddles for particular onsets/rimes/digraphs. These could all be published in class books as a resource for correct spelling. Activities described for phonetic spellers could also be used for this group of students.	Students at this level often enjoy the humour, irony, satire included in limericks, tongue twisters and alliteration. Teachers could use this interest to promote student writing of these, focusing on letter strings, etc. appropriate to student needs. Activities suggested for transitional students could be used for proficient spellers; however, they should reflect the spelling needs of students working at this level.
Kinaesthetic • Finger tracing words with onset/rime/ digraph/letter string • Enlarged drawing of words with onset/ rime/ digraph/ letter string in sand or on playground surface • Writing with glue, glitter glue • Tracing words • Highlighting in colour onset/ rime digraph/letter string • Air writing • Writing and linking letters.	**Kinaesthetic** • Writing, tracing words • Highlighting onset/ rime/ digraph/ letter strings.	**Kinaesthetic** • Writing, tracing words • Highlighting the appropriate onset/ rime/ digraph/letter strings.

Table 9: Word puzzle activities for phonetic, transitional and proficient spellers

Phonetic spellers	Transitional spellers	Proficient spellers
Word sleuth *Strategy spell it like a pattern* **Anagrams**—Making new words from original words *late–tale, race–care, mate–tame*	**Word sleuth** *Strategy spell it like a pattern, spell it like a generalisation* **Anagrams**—Students search for anagrams in a variety of print resources. They can also create their own anagrams using particular letter strings, onsets, rimes, digraphs that are being taught. **Palindromes**—Words spelt the same forwards or backwards as in *Glenelg, dad, radar, kayak.* A class list of these could be developed as students notice these words in their reading.	**Word sleuth** *Strategy spell it like a generalisation, spell it with analogy* Teachers could adapt activities for transitional spellers to suit the needs of their students.

Word puzzle—Have a list of the alphabet available and work with students on examples like the following:
• take the *tr* from *try* and replace with *sp*
• take the *tr* from *trap* and replace with *cl*
 	
Once students are able to do this encourage students to develop their own puzzles.
 	
Riddles—Students enjoy riddles, e.g.,
    My first is in cat
    My second is in log
    My third is in hip
    What am I?
 	
Riddles are often found in students' puzzle books and magazines. They are useful for teachers to use as problem-solving activities for whole class and small group work in spelling.
 	
Once students are able to solve these, they could be encouraged to write their own.
	Word puzzle—Similar to that for phonetic spellers except that clues are more complex, e.g.,
	• a two-syllable word beginning with *m*, the first syllable rhymes with *can, the last* with *cage* (manage)
	• a one-syllable word begins with *t* and rhymes with *rice (twice, thrice, trice)*
	
	Once students are able to do this, teachers encourage students to develop their own puzzles.	

Homonyms, homophones and homographs

When teaching about homophones students' needs are best met by having them write these words into sentences. This assists them to understand that the homophone they choose to spell depends on the context in which it is written. Teachers talk with students about the different digraph/letter string that makes the sound in the homophones they are concentrating on, for example, the /*ayl*/ sound in *pail* and *pale*, *hail* and *hale*, *mail* and *male*. Students are encouraged to use a dictionary to confirm their spelling.

When teaching about homonyms, at all stages of spelling development, teachers focus on the words that students are actually using in their writing and encountering in their reading. Encouraging a curiosity about words, and in particular homonyms, will assist some students to look for these words in their reading.
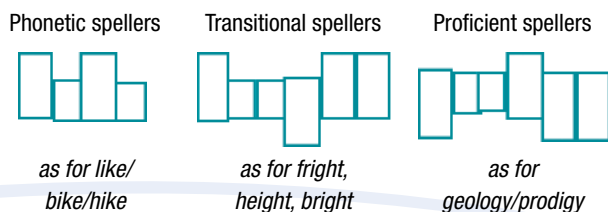
Visual activities

All students benefit from developing skills in applying visual knowledge when learning and proofreading words. This is especially important for students with hearing impairments and some groups of students from linguistic backgrounds other than English, including Australian Aboriginal students. These students may have difficulty in hearing some of the phonemes (a set of similar sounds as /e/ in *egg, said, bury)* of the English language.

Students who receive explicit teaching in skills related to developing knowledge of visual strategies will apply them when writing new or unfamiliar words. Visual strategies, such as look, cover, write, check are of particular importance in remembering irregular words.

Patterns

Students will benefit from participating in specific learning activities to support the understanding and use of visual strategies to help them identify whether a word 'looks right'. Drawing frames and working with students to add letters to the spaces can do this.

Phonetic spellers   Transitional spellers   Proficient spellers

*as for like/   as for fright,   as for
bike/hike   height, bright   geology/prodigy*

Students are helped by teachers writing whole words and helping students identify patterns within the word for them to focus on.

Word sorts

Strategies: spelling it by pattern and spell using an analogy

Word sorts are an excellent method of explicit instruction in the two strategies.

As some students may be confused between visual patterns and sound patterns teachers provide explicit activities that support students to learn about the visual patterns they are working with in class. Together teachers and students will build class lists for student reference. Word sorting and categorising are important strategies in developing these lists. For example, or spelling patterns:

for	world	doctor
more	word	emperor
restore	worm	forlorn
shortly		

Silent letters

Strategies: Spell it by chunking, spell it using mnemonics

Many words have silent letters and while some, for example, the *g* in sign may be learnt through recalling that it is related to signature, other words with silent letters, e.g., *knew, unknowing, limb,* autumn,

folk are best learnt through developing a visual knowledge of the words. Activities that could be used include:

* word sorts using words with a variety of silent letters
* word searches in multi literacy and literature texts
* developing illustrated class lists
* word finds (these can be generated using Wordfind programs)
* word games, e.g., Dominoes, Word Rummy, Pictionary
* written activities, e.g., writing words with a particular silent letter, and highlighting the silent letter
* cloze activities where the missing words contain silent letters.

Mnemonics

Mnemonics is one of the most powerful strategies that students can develop in spelling. Mnemonics are verses or sayings that can be used by students to help them to remember the visual patterns of words that they frequently have difficulty with. For example:

* currant/current   *There is an ant in the currant bun.
                                   I rent a boat and row with the river current.*
* stationery/stationary *I buy my paper from the stationery shop.
                                   My car is stationary.*

Encouraging students to develop their own mnemonics and share them with their peers is an essential problem-solving activity.

Proofreading

Strategies: successful proofreading relies on students utilising all strategies spell it likes it sounds, spell by pattern, spell it by rule/ generalisation, using analogy, chunking, using dictionary, mnemonics and automaticity.

Proofreading encompasses reading and correcting for meaning, revision, attending to grammar and punctuation, and correcting spelling. For the purposes of this document proofreading only refers to the identification and correction of spelling.

Teachers provide specific information to their students about the use of proofreading by professional writers. They emphasise that all writing submitted for publishing has undergone rigorous proofreading by people other than the writer.

Students' exposure to standard spelling and their ability to store and retrieve the images of standard word forms can vary. This in turn can lead to a varying ability to proficiently proofread (Browning, 1994). Students find proofreading a very difficult skill. One of the reasons may well be that they have to use very different skills than they use for reading. When reading for meaning clues about words are taken from the context in which they are written. Readers for meaning do not attend to every letter in every word, nor do they necessarily attend to every word. A proficient reader is able to read the following quite easily:

Th_ k_tch_n w_s f_ll_d w_th th_ sm_ll _f fr__d cr_spy b_c_n. _s th_ _r_m_ f_lt_r_d thr_gh th_ h__se it dr_w th_ inh_b_t_nts t_ th_ k_tch_n as b__s t_ h_n_y.

(The kitchen was filled with the smell of fried crispy bacon. As the aroma filtered through the house it drew the inhabitants to the kitchen as bees to honey.)

Efficient proofreaders do not necessarily examine every letter of every word, but they do have the ability to look at the whole word and compare it with the visual image they have in their memory (Browning, 1994). Efficient proofreaders develop this skill over time. While developing efficient proofreading skills student writers should be encouraged to attend to all words and to all letters in each word. When considering homonyms students need to be aware that they must read for meaning and make adjustments to the word according to the context. Proofreading e.g., for the use of apostrophes also relies on students reading for meaning.

Teachers demonstrating proofreading

Proofreading occurs as a writer writes and after writing. When teachers think aloud as they write, they inform their students that proofreading occurs as they write. Modelling proofreading during and after writing demonstrates to students that it is a practice in which writers engage.

At all year levels, teachers explicitly model and share with their students the skills and strategies involved in proofreading. They can do this by focusing on one or two of the following each time. What they choose to focus on would be guided by the knowledge they have of their students' skills and understanding of spelling:

- use a blank sheet and only show writing, a line at a time (For more experienced students, starting from the last line of a piece of writing and uncovering a line at a time helps students focus on words.)
- read slowly, point to each word
- think aloud about words they have written in a jointly constructed text
- ask students to consider the meaning of the words that have been written
- model how to find words in a dictionary, atlas, phone book, chart, etc.
- write several versions of a word and select the one that looks right
- try to write a word as it sounds and check the syllables for correctness, e.g.,

  ✔ ✔ ✔ ✔ ✔ ✔ ✔ ✘ ✔ ✔
  u n d e r n e e t h
- re-read phrases/sentences for meaning
- circle and/or underline words they are not certain about.

Student activities

It is preferable that students are allowed some time between finishing their writing and proofreading (at least one day, preferably longer), as the elapsed time allows students to read what they have actually written and not what they believe they wrote. Initially teachers would introduce and teach strategies to all students in the class. Using a whole class, small group, or individual teaching structure, teachers support all students to gradually become more expert as they implement the strategies they have been taught. It is easier to proofread writing written by someone else, and by teaching students to work collaboratively to proofread, students are more likely to be effective in their task.

Activities for teaching and learning proofreading

Semi-phonetic and phonetic spellers

Students at these stages begin to develop an awareness of the need to proofread their written work. They require ongoing encouragement to proofread their work as they write. Teachers model how they proofread as they write in front of, or with, their students.

Group activities

The following process can be used with a whole class or small groups:

- Select a piece of student writing, initially choosing a piece from a student in another class or from a previous year
- Enlarge it so that it can easily be read by all of the students you are working with
- Talk about the focus for the lesson, e.g., spelling of known words
- Read it through slowly as a group, uncovering a line at a time
- Ask students to consider which words might be spelt incorrectly and why they think they are incorrect (their level of spelling knowledge will influence the number of errors they identify)
- Accept all answers
- Ask students to suggest three possible ways to spell the word
- Model writing the word different ways
- Talk about which way looks right and why
- Tick the parts of the word which are correct
- Write the correct word above the misspelling
- Reread the corrected text to the class
- Type or write up the corrected text
- Display the corrected text alongside the draft copy, so that students can recall the process.

Partner activities

Working with a partner, students could be asked to:

- use a blank piece of paper and uncover the writing line by line
- slowly read the words aloud as they point to them
- identify a limited number of errors in their own writing, or all the /ee/or/ay/ sounding words
- circle the errors
- write three possible ways the words could be written
- select the one they think is correct
- check this spelling using classroom resources.

Transitional spellers

Students should be becoming increasingly aware of the need to present work that is spelt correctly. They also require ongoing encouragement to proofread their work as they write. Teachers continue to model how to do this as they write with and for students. If the class is going to proofread a piece of a classmate's writing, it needs to be done with the full knowledge and approval of the writer. An environment where this happens will be one in which all students are able to acknowledge the strengths of a piece of writing before engaging in critiquing it.

Group activities

The following process can be used with a whole class or small groups:

- Decide what you want students to focus on during this session, for example, missing words and spelling of familiar words or subject specific words
- Select a piece of student writing, students might volunteer to have their writing used
- Enlarge it so that it can easily be read by all of the students you are working with
- Explain the purpose of working with that piece, that is, to help a student present a correctly spelt text.
- Talk about the focus for the lesson, e.g., spelling of known words
- Read it through slowly as a group, uncovering a line at a time
- Ask students to consider which words might be spelt incorrectly and why they think so (their level of spelling knowledge will influence the number of errors that are identified)
- Accept all answers
- Ask students to suggest three possible ways to spell the word. Record them
- Talk about which way looks right and why
- Provide resources and ask some students to find and confirm the correct spelling
- Write the correct word above the misspelling
- Reread the corrected text to the class
- Type or write up the corrected text
- Display the corrected text alongside the draft copy, so that students can recall the process
- Develop, with students, a list of strategies and examples they can use when proofreading their own work.

Partner activities

Working with a partner, students could be asked to use their own writing and:

- use a blank piece of paper and uncover writing line by line
- slowly read the words aloud as they point to them
- identify the errors in their own writing
- circle the errors
- select no more than five words to correct
- write three possible ways the words could be written, using known information about the spelling system
- select the one they think is correct and check this spelling using classroom resources.

Some students may continue to find proofreading their work difficult, even with a partner, because of the large number of initial errors they have made. Following are some strategies for working with these students:

- Ask students to find three errors in their work and correct these using an appropriate strategy.
- The teacher identifies the lines some errors are in and students work together to find the error.
- With teacher support, the student identifies the type of error most likely to be made and the student, with partner, searches for these. They then use an appropriate strategy to correct the word.

Proficient spellers

Students are aware that presenting correctly-spelt work is essential. They are more able to competently proofread their own and other's work. Independent spellers will be consistently proofreading their work as they write.

Group activities

The following process can be used with a whole class or small groups:

- Select a piece of writing from another class or from a previous year
- Focus only on spelling, including possessive apostrophes
- Using a cover sheet, start from the last line and work backwards
- Read aloud slowly, word by word
- Ask students to identify the spelling errors in the text
- Reread from the beginning of the text to further check words that rely on meaning for correct spelling—as in homophones and the use of an apostrophe for possession
- Generate a discussion about the reasons for selecting the errors
- Require students to arrive at the correct spelling using a range of strategies and resources
- Provide students with a corrected copy of the text
- Develop, with students, a list of strategies and examples they can use when proofreading their own work.

Partner activity

A teacher might place a mark in the margin of a student's writing next to the line where an error occurs. Students would work together to decide which word/s needed to be corrected, and then use an appropriate strategy to find the correct spelling.

Activities for morphemic and etymological knowledge

Initially students do not use morphemic knowledge in writing new words, rather they draw upon their understanding of sound–symbol relationships when attempting to write words. As students begin to develop an understanding of the meanings of words, and are beginning to add suffixes to words, teachers begin to introduce learning activities that support students to use morphemic knowledge. Included in this chapter are activities related to adding prefixes and suffixes, and making generalisations about them, compound words, derivatives, apostrophes and mnemonics.

In all of the following activities, teachers explicitly teach students skills to understand and use the patterns that are generated in the activities. Teachers use vocabulary that is best suited to the needs of their students in the area/s of study.

Table 10: Activities to support students to use morphemic knowledge for phonetic, transitional and proficient spellers

Phonetic spellers

Lists

Strategies: Spell it by pattern, analogy, chunking, and mnemonics

- Developing lists of words that have a common morpheme which gives words a related meaning,
  e.g., *two, twice, twins, twenty, aqua, aquatics, aquarium*.

Transitional spellers

Word webs

Strategies: Spell it by pattern, analogy, chunking, and mnemonics

Starting with a non-word-based morpheme, students use a dictionary, or text relevant to the area of study, and make web of words containing that morpheme, e.g.,

aero

aeronaut

aeroplane

aerodrome

aerodynamics

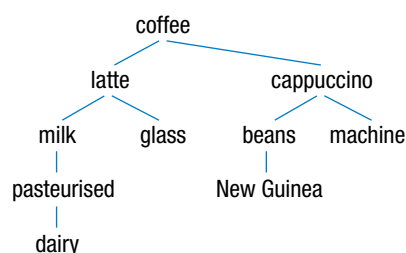aerobics

aeronautics

aerosol

aerospace

A to Z: (Suitable for transitional and proficient spellers) Students work in groups to write a vertical list of the alphabet and then find a word for each letter related to the class theme or topic.

Proficient spellers

Word association

Strategies: Spell it by pattern, analogy, chunking, and mnemonics

Start with a word morpheme and build an ever-growing set of branches where the new word is related to the previous word,

```
                coffee
              /        \
          latte        cappuccino
         /     \        /        \
      milk    glass   beans    machine
       |                 |
   pasteurised      New Guinea
       |
     dairy
```

Linking a non-word-based morpheme to syllables, e.g.,

```
        logist
        graphy
geo —   metry
        physics
        logy
```
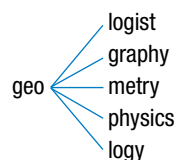
Suffixes and prefixes

When beginning to teach this, students need to have the knowledge that prefixes and suffixes never change the way they are spelt—any change that occurs is to the base word. As students engage in activities related to suffixes and prefixes, they should also be engaged in discussing the generalisations they are making about adding the part to words. Class discussions after learning activities should centre around forming and testing generalisations.

Table 11: Activities using prefixes and suffixes for phonetic, transitional and proficient spellers

Phonetic spellers

Strategies: Spell it by pattern, spell it by generalisation, chunking, analogy, from memory

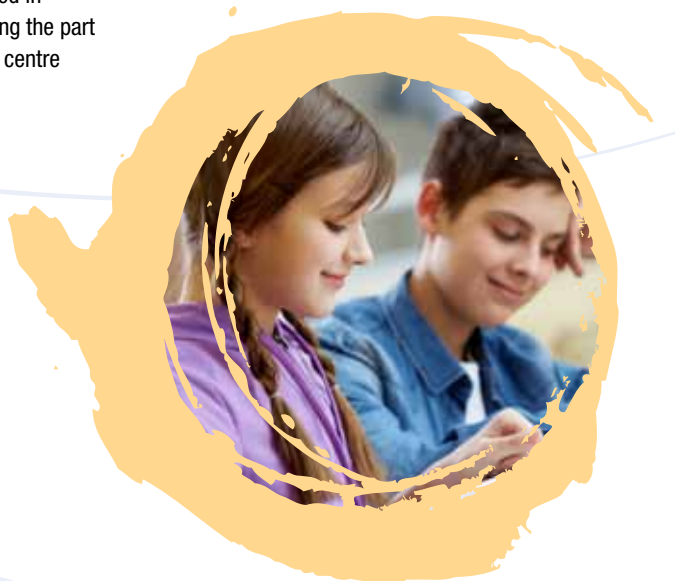Students who are gradually learning the meanings of the terms, base words, singular and plural and opposite, are helped as teachers talk about adding suffixes and prefixes.

Prefixes which students frequently use at this level are *un, dis, in, semi and suffixes include s, ed, ing, es, ly*. Students can look for examples of these words in catalogues and other reading material.

Teachers talk about them as they model writing and in shared reading sessions.

Students can make individual or class books for one, or a group of, suffixes or prefixes.

Transitional spellers

Strategies: Spell it by pattern, spell it by generalisation, chunking, analogy, from memory

Students who revise their knowledge of the terms singular, plural, opposite and base word and begin to learn the meanings of the terms past, present and future tense, verbs and adverbs will gain a better understanding of the use of prefixes and suffixes.

Students' writing will show they are using a wide range of prefixes, e.g., *anti, ab, auto, dis, extra, inter, multi, pre, re, super, trans*.

Teachers will help students revise forming plurals and making changes to verbs according to tense.

Students will probably be using *tion, sion, ation, ism, ment, ness, or, ship, en, ary, ful, ery, able ible, est, er*.

Students could engage in word sorts, literature and catalogue searches to improve their knowledge and spellings of these words.

Teachers talk about suffixes and prefixes as they model writing and in shared reading sessions.

Proficient spellers

Strategies: Spell it by pattern, spell it by generalisation, chunking, analogy, from memory

Learning the meanings of the terms, as well as revising past, present and future tenses, verbs and adverbs will help proficient spellers, as they continue learning about the use of suffixes and prefixes.

Teachers introduce students to those suffixes and prefixes that are relevant for specific areas of study, e.g., *ism, ution, ition, ation, logy, ology, ist, ic, ical, eous, ate*.

Teachers provide a range of activities that could include literature and dictionary searches, and word puzzles to support students to spell suffixes and base words correctly.
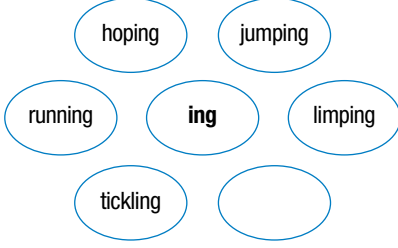
Further activities

The following activities relate to suffixes and prefixes, and can be used for all spellers.

Strategies: Spell it by pattern, spell it by generalisation, chunking, analogy, from memory

Table 12: Further activities for using prefixes and suffixes	
Class list	Develop a class list of words that begin with a particular prefix, or finish with a particular suffix. Students could do this through brainstorming, finding words in everyday/mass media texts, reading materials.
Generalisations	Forming generalisations about adding the suffix or prefix by continuing to add words that fit the list and asking students to reflect on whether the generalisation remains true.
Word sorting	Once students have a large number of words that they can read with a prefix or suffix, engage them in word sorting and ask them to describe how they have sorted the words. For example, *ing* words will contain a mixture of words with a single or double consonant before the *ing*. This will create further opportunities to discuss why this happens. Once students are familiar with a number of prefixes or suffixes these could be added to the pool for word sorting.
Word patterns	For example, in the following pattern *ing* is used as the starting suffix. A number of circles, decided upon by the teacher or students, are drawn around *ing*. Students are asked to find and write words containing the suffix in the circles. This activity can be made more challenging by asking students to find a particular number of words for the pattern in a set time.

	Another word pattern activity is to provide a word as a starting point that can have many prefixes and/or suffixes added to it. This is a possible approach for teaching comparative and superlative adjectives (e.g., *brave, braver, bravest*) and adverbs (e.g., *bravely*).
BAR (build, add, remove)	Students add suffixes and/or prefixes to a base word. For example, join becomes *joined, joinery, joint, disjoint, disjointed, joining, joins.*
What is the base word?	Students are given a list of words with suffixes and prefixes and asked to find the base words. Students could be asked to justify their reasons for selecting the base word. For example, words such as *unhappiness, undoing, semicircular, impressionism, afforestation* could be used as the starting word. Students who are phonetic spellers might only be asked to find the base word of words with only a suffix or prefix added.

Derivatives, acronyms, eponyms, portmanteau words, proprietary words

Developing a culture of curiosity about words is important in students' development as proficient spellers. Many of our words are derived from Greek, Latin or Old French. For example, words containing *macro, aster/astron, synchro* are Greek-based; words containing *omni, nutri, lumen* are Latin-based; while words containing assemble, *demi, jaun* are French-based. If students are able to understand the meaning of, and spell, a derivative in one word, then they are able to spell it in other words. For example, knowing *bi* in *bicycle*, will assist in spelling *bipartisan, binary, binoculars*, and knowing that cyclos means wheel or circular will assist students to spell *cycle, bicycle, cyclone*, and *cyclical*.

Teachers who notice that students are using words that are derivatives will take the opportunity to talk about derivatives and how knowledge of them can help students with their spelling. They will plan for explicit teaching and learning activities to support their students learning these words.

Similarly, students who are supported in developing an understanding and knowledge of the meanings and spellings of acronyms, portmanteau words, eponyms and proprietary words will increase the number of words they can spell accurately.

Table 13: Activities for learning about derivative, acronyms, portmanteau words, eponyms and proprietary words

Phonetic spellers

Strategies: Spell it by pattern, spell it by generalisation, chunking, analogy, from memory

Word sorts

Once students have a knowledge of the meanings of some words that are derivatives, etc. (e.g., *bi, tri, twi, phone, tele*), these words can be used for word sorting activities. Teachers can direct students how to sort, or provide support for students to decide on the sorting. As with all word sorting, students articulate how they sorted the words.

Class charts

- Develop an illustrated list of derivatives
- Classify lists
- Alphabetise lists.

Class Big Books

Develop Big Books containing list of words beginning with derivatives e.g., *aqua,aero*; poems, riddles etc.

Transitional spellers

Strategies: Spell it by pattern, spell it by generalisation, chunking, analogy, from memory

Word searches

- Search mass media, everyday texts, texts relevant to a unit of work for acronyms, etc.
- Search dictionaries for words that contain a derivative
- Add words to class charts, class books.

Written activities

Completing written activities will involve students in clarifying their understanding of derivatives.

Students could write their own activity based on a proforma. For example: *The derivative Ö means Ö Here are two words that have Ö in them. The derivative has been highlighted. Find words that contain Ö and list them and their meaning below.*

Develop **illustrated lists** of words for particular derivatives, etc.

Proficient spellers

Strategies: Spell it by pattern, spell it by generalisation, chunking, analogy, from memory

Word searches

- Dictionary searches for place of origin of words
- Classify words according to their country of origin
- Search area of study texts for derivatives, portmanteau words, eponyms, proprietary words relevant to the topic.

Written activities

Written activities similar to those for transitional spellers can be used for proficient spellers.

Crosswords

Many computer programs can be used to construct crosswords. Students can use their knowledge of these types of words and create crosswords for their peers to solve.

Words with multiple meanings

Teachers can foster students' interest in words by encouraging them to consider the multiple uses and meanings of words they write and how the meanings might be interpreted by their readers. The following activity (see Table 10) can be adapted for all spellers.

- A base word is chosen
- Students find or brainstorm words that have that base word
- These words are listed
- Students provide a meaning for the word
- Class then brainstorms possible ways the word can be used
- These phrases are listed
- Students work in groups to develop possible interpretations of the phrase.

Table 14: An activity for exploring multiple meaning words

Base word	Base word + suffix or prefix	Meaning	Phrase	Possible interpretation
cover	covered discovered covering recovering recover uncover	meaning	She was *discovered* singing in the bar	

Compound words

The meaning of a compound word is the total of the meanings of the smaller words within it (Bolton & Snowball, 1993), for example, teacup means the cup for a drink of tea. If students know how to spell the smaller words they will be able to spell the compound word and vice versa. For example, students who know how to spell any will be more likely to consistently spell any of the compound words containing any.

Many activities already described in this chapter are suitable for compound words, such as developing class lists, class Big Books, searching dictionaries, mass media/everyday texts, brainstorming for compound words, using their knowledge of compound words to build 'staircases'.

Table 15: Activities for learning about compound words		
Phonetic spellers	**Transitional spellers**	**Independent spellers**
Strategies: Spell it by pattern, chunking, copying from a secondary resource, memory	*Strategies: Spell it by pattern, chunking, copying from a secondary resource, memory*	*Strategies: Spell it by pattern, chunking, copying from a secondary resource, memory*
Charts	**Charts**	Build a staircase of words the final word of one compound word becomes the starting word of the next compound word e.g.,

Charts can be made by developing a list of compound words that students use or identify in reading.	Build a chart e.g.,
	
	       one
	       where
	       way
	any how
	       body
	       thing
		blackboard
		  boardwalk
		    walkman
		      manhandle
		        handlebar
		          barcode

Local walk	**Lists**	
On a walk around the local shopping centre, students could record the compound words they find.	Choose 2 words from parallel lists to make compound words, e.g., from the lists below *Grand + mother = grandmother* grand bow rain time foot fast day mother break ball Students could find compound words, break them into separate words and add them to the lists for other students to write compound words.	

Worksheets

When using worksheets it is important that these are not seen as busy work, rather they are tools for learning and opportunities for providing extra teaching for specific students. Teachers might consider developing worksheets related to their current learning program in particular areas of study. Students could use a glossary or topic words to build their own compound words.

Discussion and generalisations

Compound words that have double letters often cause confusion for some students. Students could find examples of these, a class list could then be made, and a discussion generated so that students have to explain why the double letter occurs (e.g., *rr* as in *underrated*). Students who can develop and test generalisations will become more competent spellers.

Apostrophes

Strategies: Spell it by generalisation, pattern and from memory

Contractions using apostrophes

An apostrophe is used to indicate an omitted letter/letters when two words are joined together, that is, contracted, as in *hadn't, we'll, I'm, I'd*. As students begin to use these in their written language, a teacher can begin to teach how to write them and the meaning of the contraction they are using. Teachers find that some students need explicit teaching of contractions throughout a school year and over successive years. A teacher is best guided by their students' writing as to what contractions need to be taught.

Following are some activities for learning about contractions which could be adapted for all spellers:

Table 16: Activities for learning about contractions using apostrophes	
Word searches	Using reading material (literature, mass media, everyday texts), students look for and record contractions on class lists.
Class lists	Class lists are useful when they are developed from word searches. If the lists include the contraction and the meaning of the contraction, amply illustrated, and are referred to frequently by students, they will be supportive of all students. These lists could be organised alphabetically or according to the contracted word. For example:
Written activities	Students complete proformas that the teacher has developed or use the proformas to create their own tasks for their peers.

NOT	**HAVE**	**WILL**
wouldn't	would've	I'll
couldn't	could've	she'll
hadn't	should've	we'll

The possessive apostrophe

An apostrophe for possession is used to show that something belongs to someone or something. Students' writing in the early years indicates that many are attempting to use the possessive apostrophe in their texts. Teachers, when talking with students about the use of apostrophes, are explicit in their explanations about the use of the apostrophe. This can be modelled in writing sessions. Using students' literature to demonstrate how authors use the apostrophe is a powerful tool for many students. Teachers ask students to think about how their knowledge of apostrophes will assist them in their reading and spelling.

All teachers of all year levels provide explicit teaching for all or some of their students on how to use the apostrophe for possession.

Following are some activities for learning about possessive apostrophes which could be adapted for all spellers:

Table 17: Activities for learning about the possessive apostrophe	
Word searches	Teachers engage their students in collecting examples of phrases or sentences containing the possessive apostrophe from literature, everyday and mass media texts. They discuss how they are used. (Note: Some examples from everyday texts may be incorrect. These are samples that could be collected and used as a discussion starter about why different spelling is used and its effects.)
Sorting and classifying	As words are collected, students engage in sorting and classifying them. These can be sorted into 5 categories: • singular nouns that do not end in *s*, for example, *the dog's bone, Anna's toy* • singular nouns that end in *s*, for example, *Ros' book, Dickens' stories* • plural nouns that do not end in *s*, for example, *the sheep's wool, the mice's hole* • plural nouns that end in *s*, for example, *my sisters' letters, the animals' shelter* • plural nouns ending in *en*, for example, *the women's rally, the students' park*.
Proofreading	Teachers provide some short texts that have had all apostrophes for possession removed. Students discuss and decide which words ending in s need apostrophes.

Activities for all stages of spelling

Activities for all students and stages include:
- Developing class lists, using words in sentences or phrases, so that the context is clear
- Publishing lists in charts or Big Books
- Hunting for homophones in junk mail, reading materials both fiction and non-fiction
- Doing cloze activities, both commercial, teacher-developed or student-generated
- Developing mnemonics (memory aids) or using analogies to recall the spelling of one of the homophones, for example:
  - I *hear* with my *ear*
  - *here* and *there*
  - my *pal* the *principal*.

Board and card games

Teachers and students can develop board games or card games such as Snakes and Ladders, Dominoes, Concentration, Tic Tac Toe, Bingo, Word Rummy, Scrabble, and Noughts and Crosses to develop knowledge and understanding of aspects of sound–symbol relationships. (Refer to Appendix 3 for considerations when selecting resources)

Computers and spelling

Many students find using a computer motivating in improving their spelling. In many classrooms students are asked to type their lists using a Word program, enlarging and changing font to visualise the correct spelling.

Westwood (2010) believes that students with learning difficulties can develop positive attitudes toward drill and practice using spelling programs on a computer.

Desirable considerations when selecting computer programs:
- Contains a structured and sequential approach
- Has the ability to enable the construction of word lists that reflect the particular needs and interests of the student
- Provides activities that require the student to type the words
- Uses lowercase letters of a reasonable size in a clear font
- Has sound – it is vital for the student to hear as well as see the words being formed
- Has an Australian accent
- Scaffolds students for success
- Provides incentives and rewards.

(Refer to Appendix 3 for further considerations for selecting resources)

Choosing and learning words

Students are expected to learn to spell words correctly. Their needs are best met when they select words that they need to spell correctly in their own writing. Time needs to be allocated for the selection of words and the learning of words. Teachers and students develop routines to allow for this.

Selecting words to learn can be done in many ways, for example:
- students select incorrectly-spelt words from their work and use these as a basis for their list
- some proficient spellers, who do not make many errors in their writing, can use dictionaries, thesauruses and texts as a source
- using a mixture of self-selection and words from a high frequency list
- teachers engage students in discussion about what are essential and desirable words for them to learn. Subsequently, essential and desirable becomes the criteria for selection, e.g., it may be desirable for a particular student to learn to spell *glockenspiel*, but essential that they learn to spell the word back.

The number of words students need to have on their list can pose problems for teachers, students and parents/caregivers. The number is influenced by factors such as the following:
- whether the list words will be tested
- who will test the words, for example, the teacher, a peer, other adult
- the individual student's ability to recall and reproduce correctly a list of words
- the frequency of the tests.

As a result of these considerations a teacher might ask a beginning speller to only learn one word at a time, while a transitional speller might be asked to learn 10 words each week and an independent speller 20 words.

If students are not engaging in class tests, teachers may choose to negotiate with students other ways of checking whether they are learning the words that they select. For example, a student might have to provide evidence in their classroom writing, over a two-week period, that they are consistently writing their selected words correctly.

When students select words to learn, it is useful for them to find and list other words that have some relationship to the selected word, e.g., if a student selects to learn *wrist*, then other *wr* words can be added to the list. Teachers who expect their students to do this also engage their students in discussions about how knowing how to spell the /*wr*/ sound in wrist allows them to spell other words, as in *write, wren, wrestle*.

Usually, learning to spell words is an individual activity in classrooms, and may even be solely a homework activity. However, spelling needs to be a part of the explicit teaching and learning activities of the class. It is possible for students to work in pairs and small groups to facilitate the learning of words. A part of learning the spelling of words is discussion of the meanings of the words.

When learning words is a part of ongoing explicit teaching and learning, students should eventually be able to look at a word and decide which method of learning best suits the student and is appropriate for the word. For example:

- *because* might best be learnt by using a look, cover, write, check approach
- *flight* by remembering to use night as an analogy
- *fierce* by remembering the generalisation *i* before *e* except after the sound of /cee/
- *asteroid* by only concentrating on the *oid* syllable or by chunking aster-*oid.*

Ways to learn words

Marzano (2004) discusses the importance of explicitly teaching the vocabulary of areas of learning and suggests that teachers uses a six step approach to do so. The first three are used to introduce new vocabulary/ terms to students. The last three describe multiple ways that teachers should provide their students so that they improve their understanding of the words and their ability to spell the words.

- explain – provide a description, explanation or example
- restate – ask students to restate the description, explanation or example of new words
- show – ask students to construct a picture, symbol or graphic representation of the word
- discuss – engage students periodically in structured vocabulary discussions
- refine and reflect – ask students to return to their notebooks to discuss and refine their notes
- applying in learning games – allow opportunities for students to play with the words.

Look, cover, write, check

Most students need a method of learning words that will help them inscribe words in their memories (Browning, 1994). While students are frequently expected to use the 'look, write, cover, check' method, using just those four steps will only support visual and kinaesthetic students. Westwood (2010) suggests that this strategy needs to be taught to students who have not moved easily beyond the phonetic stage of spelling. Other strategies which students apply when whey look at a word have informed the following variations of the 'look, write, cover, check' method and can be used to support other learning modes.

Westwood (2010) describes two variations of this method through a cued approach.

The first method is:

To have each individual word written on a card that is given to the student.

The directions are then:

- *Use your eyes like a camera. Take a mental picture of this word* 'choir'
- *Close your eyes and imagine that you can still see the word*
- *Trace the letters in the air with your eyes closed*
- *What colour are the letters in your mind?*
- *OK now imagine the letters have changed colour. What colour are they now? Open your eyes and write the word on your paper*
- *Now check the spelling with the word on the card.*

The second variation is:

- *Look at the word*
- *Close your eyes and imagine you can see the word as you say it*
- *Name the letters from left to right*
- *Open your eyes and write the word*
- *Check against the correct spelling*
- *Repeat if necessary until the word can be recalled easily.*

Silverman (1994) used a variation of this with students who are visual–spatial students. She describes these students as, amongst other characteristics, thriving on complexity but struggling with easy material, phonics and spelling. The variation she has described, is to:

- *Look at the word*
- *Close eyes and picture the word*
- *Spell the word backwards with eyes closed*
- *Spell word forwards with eyes closed*
- *Write the word*
- *Check the word.*

Other ways of learning to spell words

- Some students, who are kinaesthetic learners may need, firstly, to write the word several times by finger tracing over the word, air writing, copying it, and then writing from memory. Each step may need to be repeated before moving to the next.
- Some students best learn words by focusing only on the part that causes problems, e.g., in choosing to learn a word such as *indignant*, they might only concentrate on the *nant*, as the *indig* can be easily heard and rewritten correctly.
- However, it is important that students always practise writing the whole word to ensure that the sequences of the letters in the complete word pattern are produced. This applies also to correcting a word. Simply changing the incorrect letter or letters does not help to establish the feel of the whole word. When words are corrected they should be written in full.

'Have a go'

'Have a go' is a strategy toward correct spelling. Students are asked to have more than one attempt at spelling words they are unsure of and then identify which spelling is most likely to be correct. They need to use a reference or other person to identify the correct spelling in order to reinforce the accuracy of the word. Some teachers ask students to use 'have a go' during the writing of the first draft, others while they proofread and correct their spelling.

Students keep 'have a go' sheets in a file and teachers use these to monitor the words students are now able to write correctly and the strategies they use to attempt spellings. Teachers also monitor these to gauge the complexity of the words that students are attempting to correct.

Some teachers use a 'My first dictionary' book as students' 'have a go' book, as this encourages students to use the alphabet as a sorting tool. In Table 14, one teacher has described how she uses this in her R–2 class.

Given the variety of ways in which different students can learn words effectively, it is important that teachers work with their students to establish which way(s) is the best for them. Teachers must explicitly teach students how to learn, and provide time for learning in the classroom.

Table 18: My first dictionary:
Using an exercise as a personal dictionary

During writing activities students are expected to use this book to attempt the spelling of unknown words.

This is set up as a dictionary with a page for each letter of the alphabet.

During term one, we focus on how to use this book.
- *Think of the first sound you hear when you say your word*
- *Find this page in your 'have a go' book*
- *Attempt the word by yourself listening to the sounds as you say it*
- *Is there anything in the room that you can use to help you?*
- *Look at the word, think about the beginning and the ending*
- *Are there any patterns you know of in other words?*
- *Check your word using other people or resources.*

When the child checks the spelling with me, I focus on the parts of the word which are correct rather than mistakes made. We talk about and look at other words of a similar sound or visual pattern.

Figure 2: Insert in students' first dictionary – Year 1

Some examples of 'have a go' sheets follow.

Example 1: My 'Have a go' sheet			
	Write the word you underlined in your draft	Have another go at the word	If it still doesn't look right, have another go	The correct spelling
Word 1				
Word 2				
Word 3				
Word 4				

Example 2: My 'Have a go' chart			
My first go	My second go	My third go if I think I still haven't got it right	Correct Spelling

Example 3: 'Have a go'! Spelling sheet			
date	My try	Checked with	Correct Spelling

Dictation

When teachers use the results of dictation for diagnostic purposes, to analyse errors to see which skills and strategies individual students use and which need further support to develop proficiency, dictation is a valid learning tool. Following are some of the ways in which dictation can be presented.

Cloze

A passage of text is chosen, or written, by teacher and students and some words are then deleted from the text. The deleted words can be topic words, words that belong to a particular sound or visual pattern, or particular onsets, etc. These words would have been the focus of some spelling sessions prior to the dictation. Students could work individually or in pairs to fill in the blank spaces appropriately.

Dictogloss

When teachers use dictogloss they read a piece of text to the students who then attempt to reconstruct the text. Before reading the text to students, a discussion about the topic is held. Students list possible words which might be in the text and consider how those words might be spelt. Students work in groups to reconstruct the text. Following the writing, students analyse and correct each group's texts. Finally, they compare their writing with the original.

Round Robin

Near the completion of a unit of spelling students form pairs or small groups and use their spelling words to make up a sentence, or short paragraph. Students check that the spelling is correct and then they give their dictation to another pair or group. Following the dictation, groups then take responsibility for checking each other's spelling.

Read and retell

Read and retell involves students in intensive reading, discussing, talking and listening about a particular text. The text selected reflects the focus for a learning program and will contain words students are familiar with. Once the students are familiar with the text they individually rewrite the text from memory. When finished they are given an opportunity to proofread and correct their spelling.

Spelling lists

Refer Appendix 2 for considerations around use of spelling lists.

Corrections

When a student is asked to write corrections, the teacher is really asking them to learn the words so they write them correctly. Teachers know that for most students asking them to write the word out repeatedly has very little positive effect on the subsequent use of the word. Many teachers are supporting students who make mistakes to learn and apply new strategies for spelling words. Some teachers have found that one of the most effective methods for their students is to ask them to consider whether it is essential they be able to spell the word correctly or would it be desirable. Those that are essential are then put onto a student's ongoing list of words and students practise strategies to learn the words. A student has the option to learn the desirable words if they want to.

Using dictionaries

Students use dictionaries to locate the correct spelling of words, meanings, pronunciation, origins of words and relationships between words. The use of dictionaries can pose problems for many students as a source of locating correct spelling. To be successful in finding correct spelling, a student needs to be able to spell reasonably well, and know possible alternative ways sounds can be represented. For example, if *cough* can't be found as *coff* and the */ough/* sound is not known, why would a student search any further? Teachers need to consider having alternatives to traditional dictionaries in their classrooms, for example, The Australian writer's word book (Morrish, 1984), and also reverse-list dictionaries that have the possible wrong spelling side by side with the correct spelling. The use of dictionaries must be taught systematically to all students from the beginning of their schooling.

Table 19: Using a dictionary

Phonetic spellers

- Provide an alphabet chart to refer to
- Provide a variety of books, in which words are entered in alphabetical order, in class reading section
- Look at a variety of dictionaries and identify common characteristics of a dictionary
- Frequently model the use of a dictionary
- Have students develop a personal word finder for words they need to spell
- Use class dictionaries to locate particular words, e.g., how many words start with *ch*
- Sort letters and words into alphabetical order
- Model using guide words at the top of dictionary pages
- Play alphabet games.

Transitional spellers

- Provide an alphabet chart to refer to
- Continue to model the use of a dictionary
- Sort words into dictionary order— according to the second and third letter of the word, etc.
- Identify where words might be found within an alphabetical entry, e.g., where will *dinosaur* be found, near the beginning, middle or end of the d words?
- Explicitly teach the use of guide words at the top of a page in a dictionary
- Develop activities so that students have to use the guide words at the top of dictionary pages
- Model how to find a word with more than one possible spelling for the onset, e.g., *photo*
- Find words with similar onsets or prefixes
- Use a dictionary to find meanings of words from their reading
- Students use a dictionary to find words with same base word
- Model how to use a dictionary to find pronunciation of words.

Proficient spellers

- Model how to use a dictionary to:
  - find all meanings (and pronunciations) of words
  - find the origin of words
  - find part/s of speech of a word
- Find the above as part of vocabulary activities in all areas of study
- Sorting activities as for transitional spellers
- Activities which involve students in finding similarity between words, e.g., medication and pharmaceutical
- Use dictionaries to build word families based on:
  - prefixes particular to topics/ areas of study
  - derivative-based words, e.g., *seismo, sympo*
- Use dictionaries to find meanings of:
  - eponyms, e.g., *Ohm's law, artesian wells*
  - acronyms, e.g., *HMAS*
  - portmanteau words, e.g., *Eurovision, Eurodollar*.

Using a thesaurus

Thesauruses specifically written for primary sites are now available. Teachers could consider working with them as they do dictionaries.

Using a spell checker

Spellbound

I have a spelling chequer

It came with my PC

It plainly marks for my revue

Miss takes I cannot sea

I've run this poem threw it

I'm shore your pleased two no

It's letter perfect in it's weigh

My chequer told me so

By ***Nor Man Vandal*** (Author unknown)

Students will use spell checker programs to find and correct spelling. While they are an extremely useful tool in correcting spelling, both teachers and students should know these they need to be used with knowledge of their limitations.

- Only one quarter of errors are recognised by the program (MacArthur, 1996). This may be because the word spelt is a correct spelling of another word, or a 'typing' error, for example, form instead of from, dose instead of does.
- Words that are spelt correctly, but are not included in the program's dictionary will be recognised as an error. Students need to know how to add such words to the checker's dictionary. Some examples are: proper nouns, e.g., *Appila, Monarto*
          technical vocabulary
          Americanisations e.g., *center*
- A spell checker will not be able to suggest alternatives for some words because of the severity of the misspelling. For example, the program used in writing this document provided no suggestions when, inadvertently, *vertical* was typed as *vertixcsal*. Emergent and semiphonetic writers might type in a stream of letters that the dictionary will not be able to correct. Other resources will need to be available.
- Some spell checkers are more useful than others.
- Students need to have an understanding of how to read the spell checker instructions as they appear on screen.
- Students need to have an understanding of grammar and formalities when offered suggestions for correcting some words. For example if *I advice you to seek advise* is typed in no error will show up.

- Discuss that a spell checker will not recognize a correctly spelt word that may be grammatically incorrect e.g., will not correct *leaning* as an error when the writer wanted to write the word *learning*.
- Discuss that a computer may suggest a word that does not fit the meaning of the text a student is writing e.g., *hansard* and will suggest it be replaced with *hanford.*

Teaching and learning activities for using spell checkers

Teachers must be familiar with the spell checkers that students will be using. Teachers of students with learning difficulties and disabilities may need to consider using software programs to support their students' spelling as they write.

The best way to learn to use a spell checker is to use it in the context of the writing a student is doing. However, this has its limitations. Use a brief text appropriate to the spelling abilities of a class, and
- identify words that are possible errors
- locate and use spell checker function
- discuss that the spell checker offers spelling possibilities but does not spell words for the user.

Some other suggestions are to:
- model the use of spell checkers to small groups of students, or use an electronic whiteboard with the whole class
- design minicourses for students that involve students learning to use the spell checker, adding words to the dictionary, using the thesaurus as part of a learning program related to aspects of the curriculum
- each student to regularly proofread and correct their work as they write.

Westwood (2010) suggests that by combining the conference approach to writing with the use of a word processor, the student's story in draft form can be printed, without using the in-built spell checker. Student and partner, or student and teacher can then check the printout and discuss good features of the story, and identify sentences or phrases or particular words that might be improved. It is useful for the teacher to note which words the student can self-correct in terms of spelling, and which misspelt words are not detected without assistance. A second draft of the story can then be made after the student does the necessary revisions and, at this stage, uses the spell checker.

Westwood also notes that for students with severe spelling difficulties the spell checker is not of much assistance. For example emergent or semiphonetic spellers may type a string of letters , e.g., *llkmyganguste* (I like my gangbusters), that the computer does not recognise and for which it cannot suggest an alternative.

The stages of phonic awareness

STAGE 1 **Letters of** **the alphabet**	Recognise, say and write the names and the common sounds of the letters of the alphabet a) lower case letters b) upper case letters
STAGE 2 **Onset and** **rime word** **families**	Recognise onsets and rimes or word families 3-letter words in a consonant-vowel-consonant pattern, e.g. p-e-t , c-a-n ab ad ag am an ap at ed eg en et ib id ig im in ip it ix ob od og op ot ub ud ug um un up us ut
STAGE 3 **Blends** *Phase 1*	suggest an alternative. 2-letter initial consonant blends bl br cl cr dr fl fr gl gr pl pr sc sk sl sm sn sp st tr tw
Phase 2	2-letter final consonant blends ft ld lk lp lt mp nd ng nk nt py ry sk sp st ty
Phase 3	3-letter initial consonant blends scr spl spr str squ
STAGE 4 **Digraphs** *Phase 1*	Consonant digraphs th sh ch ck ph wh (qu)
Phase 2	Vowel digraphs oo (moon) ee ea o-e a-e u-e i-e
Phase 3	oo (cook) ow ou ai ay ace all oa aw l-e oy oi ir, er, ur y – sky, try, my; y – happy, funny, merry
Phase 4	1. t ie 6. c age 11. t alk 16. l augh 2. t oe 7. c ould 12. t ough 17. tele ph one 3. n ew 8. f air 13. b ought 18. monk ey 4. h igh 9. c ure 14. c aught 19. p oor 5. m ight 10. w eight 15. fr uit 20. he dge and the silent letters.
STAGE 5 **Structural analysis**	Syllabification – including compound words, prefixes, suffixes, base words

DECS, *Engaging in and Exploring Phonics* 1, p.2 [originally from Hill, p.212]

Appendix 2:
Use of lists in the spelling program

Traditionally spelling has been taught using graded spelling lists. Lists were usually based on either word frequency or phonic complexity (Hudson, 1983). These lists were often developed from students' reading and oral language and were not based on what students were writing or wanting to write. Teachers were often confronted with conflicting graded lists – some words appeared at different grade levels in different lists. The assumption that all students at a particular year level must know a particular group of words frequently placed the teaching of spelling lists as a subject separate from the classroom writing program. Many students successfully learnt the words for tests, but frequently there was little transference to their own writing.

There has been a decline in the use of graded spelling lists, but they still form the basis of some commercial spelling programs.

High frequency lists, such as those produced by Hudson (1983), Clutterbuck, (1990), and Rowe & Lomas (1996), are frequently used by teachers. The emphasis today is on either using them as a checklist when assessing each student's writing or providing them to students as a useful tool for their writing.

Shepherd (1994) proposes that the list in her book be given to students as a checklist for them to use. Clutterbuck (1990) suggests that teachers group the words in his list in some meaningful way for students to access. Rowe and Lomas (1996) suggest that, if a student is having difficulties spelling a particular word from a high frequency list, the teacher work with the student to identify other known words that look or sound similar and work on strategies that will help the student to learn the word.

Word lists are a useful resource for teachers and students. As suggested in Chapter 6 to maximise their use and usefulness, lists should be developed with students. A variety of lists could be developed which meet the needs, experiences and interests of the students. They include:

- words organised according to visual patterns
- words organised according to meaning
- theme lists
- interest lists
- days of the week, months of the year, time words
- numbers
- colours
- subject specific vocabulary
- words frequently misspelt
- words students frequently ask for.

Rationale for selecting resources

There are numerous commercially-produced spelling programs available, both print and multimedia, which vary in quality. Using such programs can provide organisational benefits for teachers. Before deciding to use a commercial spelling program, teachers could consider the following.

- Does the program fit with current understandings about student learning?
- Is there a balance of phonetic, visual and morphemic activities?
- Is there provision for all students to work at their stage of spelling development?
- Are there a variety of activities and increasing complexity from one unit to the next so that thinking is fostered and not just rote response?
- Do the activities provide for multi sensory learning?
- Does the program contain topics or units that students will be engaged in this year so that the spelling program is an integral part of the curriculum?
- Do the words included in the lists support the appropriate development of spelling knowledge of students? For example, is there an opportunity to add words to the list that describe where students live (e.g., place names, geographical or historical features); are words subject specific; are words frequently used by students in their personal writing?
- Do some words need to be excluded because all students can spell them?
- Should some words be excluded because there is no need for students to learn them?
- Are there opportunities for students' curiosity about words to be developed?
- Does the program involve students in using other resources, e.g., dictionaries, spell checkers, atlases, thesauruses?
- Are there opportunities for students to learn to spell words in a variety of ways?

Teachers need to consider some of the limitations of such programs.

- Some programs assume all students are working at the same level. In the classroom, however, activities will take a few minutes for some students to complete, but will never be completed by other students.
- Students may only be expected to use one or two strategies.
- Activities might not involve students in thinking about their learning.
- Some activities might require students to learn a particular language to describe aspects of spelling which may not be used or understood by parents/caregivers or other teachers.

Using multimedia products

Teachers ask similar questions to the ones above when considering the use of multimedia products in their spelling program. There are also other considerations to be made, e.g.,

- How easily can students move from one level to another?
- Whose culture is being foregrounded?
- Is the vocabulary used known by all students?
- Are there more rewards for selecting incorrect answers than for selecting correct answers?
- Is this resource just 'busy work' in a visual form?
- Does this resource make full use of multimedia possibilities?

A. Contractions	Involves words like can't, wouldn't and errors include omission of apostrophe, incorrect placement of apostrophe, incorrect spelling of contraction
B. Words run together	e.g., alot, everyone
C. Silent letters	e.g., (k)not, (g)nome, lim(b)
D. Diphthong/Digraph	Incorrect diphthong, e.g., ee for ea
	Failing to use one, e.g., swep for sweep
	Writing a diphthong in the wrong order, e.g., agian for again
	Mistakes with wh, th, sh, ck, etc.
E. Diacritic 'e	Omission or misuse of e where the e changes the sound of another letter in the word, e.g., mak/make, instanc/instance, likly/likely
F. Letters in the wrong order	e.g., gril/girl, slef/self, unlit/until, middel/middle
G. Phonetic mistakes	e.g., thay, sholders, pritty, imbarised, gess, kaki
H . Homophones	e.g., there/they're/their, to/two/too, hear/here
I. Word substitutions	e.g., where/were, though/through, quite/quiet, of/off
J. Incorrect prefix	e.g., all right for alright, all ready for already, all most for almost
K. Incorrect suffix	e.g., sincerly, rideing, climbd, dropt, actualy, raspberrys
L. Letter reversals	e.g., p/q, p/d
M. Omitted letters	Failing to double final consonant, e.g., stoped, runing
	Words that would seem to be careless, e.g., ws for was, frie for friend
	Errors involving silent e at the end of words, e.g., wer for were, hav for have, pleas for please
N. Grammar	e.g., was/were, has/have, as/is
O. Added letters	e.g., pround for proud, outher/other, bouth/both, and/a
P. Wrong letters	e.g., stasion/station, compitition/competition, energenic/energetic
Q. Split words (1 as 2)	e.g., in to/into, every body/everybody, hand full/handful
R. Omitted double letter	Omitted letter in base words, e.g., anoy/annoy, comercial/commercial, ful/full
S. Added double letter	e.g., targetting instead of targeting shows a misunderstanding of the generalisations for adding suffixes
T. Apostrophe of possession	e.g., mothers' instead of mother's
U. Mispronunciations	e.g., anythink/anything, bin/been, anover/another

Adapted from Education Department of South Australia. 1992.

Stage 1 – Planning proforma	
Curriculum Outcomes	Focus Questions
Understandings: *Students will understand that*	*Students will be able to*
Students will know	

Stage 2 – Assessment Evidence	
Performance Tasks	Other Evidence

Stage 3 – Learning Plan
Learning Activities

Glossary

acronym	a word usually formed from the initial letters of words in a phrase, e.g., ANZUS—Australia, New Zealand and United States
analogy	a strategy for remembering how to spell words, e.g., knowing how to spell eight will help students to spell eighth, eighty, eighteen
digraph	a single sound represented by two letters, e.g., consonant digraphs include sh, th, qu and vowel digraphs ea, ay
diphthong	a type of blended vowel sound, e.g., oa, oi
eponym	a word derived from the name of a person or place, e.g., volcano—Vulcan (god of thunder)
grapheme	a letter or group of letters used to represent a single sound
homonym	a word which has the same sound or the same spelling as another but has a different meaning, e.g., new/knew; bear (meaning to carry or an animal)
homographs	words spelt the same but have different meanings, e.g., wind (up a clock) and wind (air movement)
homophones	words that sound the same but have different spelling, e.g., incite/insight
mnemonic	a memory trigger to recall the spelling of a particular word, e.g., piece of pie
morpheme	the smallest unit of meaning in the English language—it may be a word, e.g., dog, or a component of a word -s in dogs
morphemic	spelling strategy that has to do with the meanings of words
neologism	the creation of a new word or expression
onset & rime	refers to the way in which single syllable words are broken down into a beginning sound unit (onset) and a unit containing the vowel and final sound (rime), e.g., rug: r is onset, ug is rime; black: bl is onset, ack is rime
phoneme	a set of similar sounds, e.g., /p/ sounds
phonetic	deals with sounds and how they are produced—the spelling strategy that writers use to write a letter/group of letters for a particular sound
portmanteau word	a word made by putting together parts of other words, e.g., aero and solution to make aerosol
prefix	a word part which is put in front of a word to change the meaning, e.g., omnipresent
SETT	the SETT Framework is a four part model intended to promote collaborative decision-making in all phases of assistive technology service, design and delivery.
suffix	a word part which is put at the end of a word, e.g., happiness

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