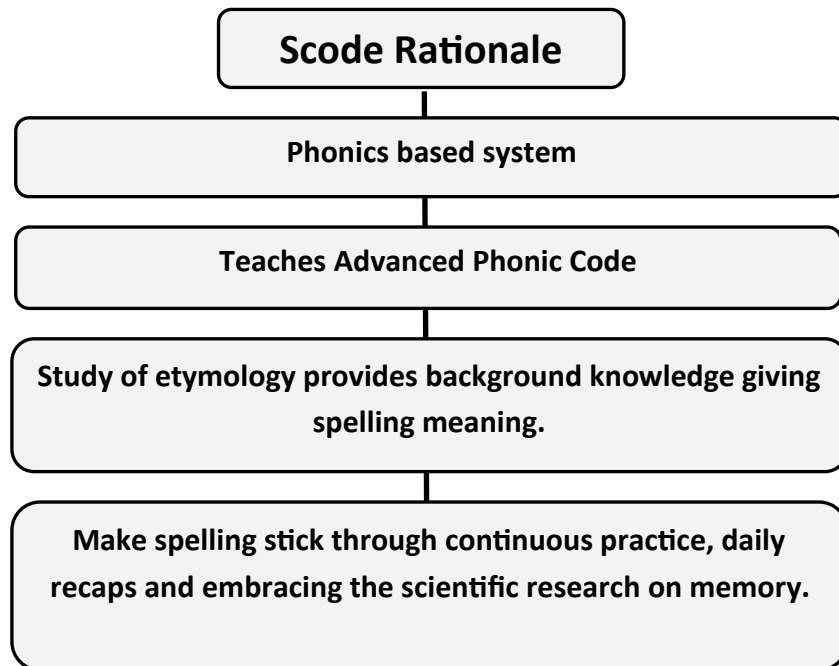


# Introduction

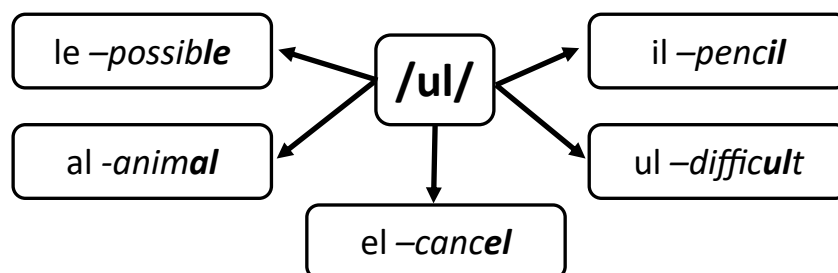
The rationale behind this system is summarised in the diagram below. The following pages explain in detail each of these aspects.



This scheme uses the spelling requirements of the National Curriculum for years 2-6 by teaching children the advanced English phonics code. The National Curriculum (2013) states; ***'The rules and guidance are intended to support the teaching of spelling. Phonic knowledge should continue to underpin spelling after key stage 1; teachers should still draw pupils' attention to GPCs that do and do not fit in with what has been taught so far. Increasingly, however, pupils also need to understand the role of morphology and etymology'***.

It is widely accepted that English is a complicated language to learn, especially when it comes to writing. In short, the English alphabet is made up of 26 letters, these combine to make the 44 sounds or phonemes we speak. However, when it comes to the writing/spelling of these sounds there are over 150 combinations or graphemes.

Take as an example the sound /ul/ like in the word *kettle*:



The complexity of the English code is a direct result of our history as an island. Originally a Proto-Germanic language, English has over hundreds of years, transformed and developed into the modern language that we speak and write today. From Latin, Roman invasions, the Old Norse of the Vikings to William the Conqueror and early French. From the printed word to Shakespeare and empire building, English has absorbed it all.

In short, as McGuinness explains, “the opaque nature of the English phonics code is due to the fact that it is originally derived from multiple languages. Modern languages with transparent or near transparent spelling codes include Italian, Spanish, German, Finnish, Swedish and Norwegian. They are easy to teach, and most children learn them in a year.”<sup>1</sup>

Add to this the fact that the way we speak is constantly changing and evolving, yet the written word largely stays the same. Humans are lazy speakers, we drop vowels and sounds. What we hear doesn't always match what is written and therefore it is no surprise that so many of our children struggle to spell even the most common words.



It is widely accepted and supported by evidence, that ‘synthetic phonics’ is the most effective way to teach reading and spelling at KS1. The EEF states, “There have been a number of studies, reviews and meta-analyses that have consistently found that the systematic teaching of phonics is beneficial.”<sup>2</sup> In a recent paper the DFE advised “systematic synthetic phonics teaching for all pupils, with plenty of practice,” and stressed “sufficient time for reading and writing, including phonics for spelling.”<sup>3</sup>

However, despite the evidence, as children advance into KS2 structured and systematic phonics teaching is rarely embraced with the same rigour as in the Early Years and KS1. The focus shifts from teaching spelling through phonics to spelling rules which to put it bluntly, are a waste of time. (Unless when adding suffixes and therefore can be applied to a large number of words.)

## Why spelling rules don't work

The reason for such an ardent view should be obvious when you glance over the National Curriculum. In year 2 the rules and guidance tell us, “In other positions in words, the /dʒ/ sound is often (but not always) spelt as g before e, i, and y. The /dʒ/ sound is always spelt as j before a, o and u.”<sup>4</sup>

Reading this as an adult would be challenging and whilst such rules will be broken down in the classroom they still place a huge amount of pressure on memory and children's cognitive load. What is more, studies have shown that even if rules are learnt, they are rarely applied.

Add to this the astounding fact that when it comes to spelling rules, there are often more exceptions to the so called rule. It's a bit like teachers setting expectations in the class room and then announcing that a random group of students are exempt. It simply makes no sense and proves infuriating for children as they fail to see any logic in what they are being asked to learn or do.

What is more, scientific studies consistently prove that certain types of information reduces memory load, arbitrary rules and their exceptions are random and difficult to remember.

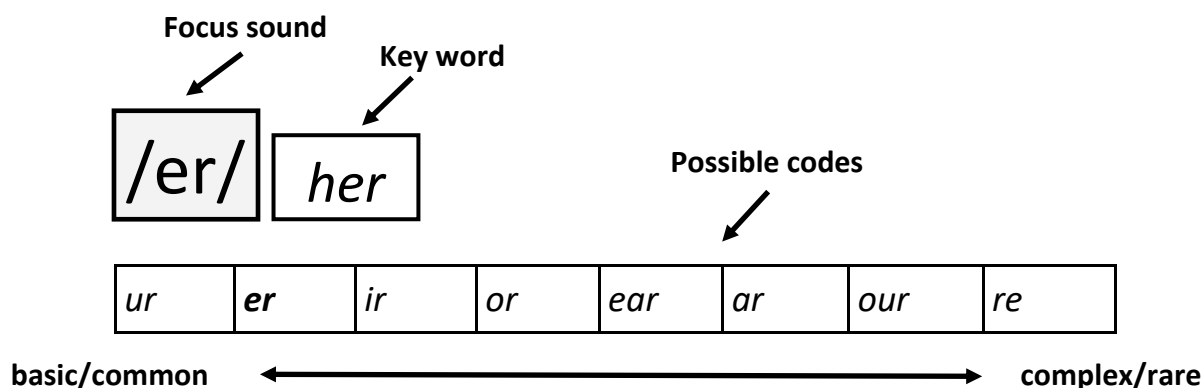
Finally, yet paramount, is the fact that spelling rules do little to support reading. Teaching spelling through phonics is reading practice in disguise. When children encode words they are simultaneously decoding, as they break the word down to write. They are hearing the sounds the codes make in the words rather than trying to remember a nonsensical rule. "Reading and spelling are reversible processes, and should be taught in tandem so that this reversibility is obvious." <sup>5</sup>

## The Advanced Phonic Code

The phonic code refers to the relationship between the sounds we speak and the letters (codes) that are used to represent these sounds. The basic code being the most common and simplest letter to sound combination. For example *a* sounding /a/ like in the word *apple* or *ir* sounding /er/ like in the word *bird*. The basic code is taught to children from early years through to KS1.

The advanced code is simply more letter combinations (codes) for the sounds we speak. These codes whilst less common and at times more complex are just other ways of writing the sounds. Children will struggle to move through the KS2 spelling curriculum without understanding this. Teaching children to spell by learning the advanced code allows for a logical progression in children's understanding of the English language. It builds directly on the phonics foundations of KS1 and as McGuiness concludes "is sufficient to cover around 90% of words in print." <sup>6</sup>

Throughout this scheme the advanced code will always be presented in the following way:



At first glance the advanced code may seem complex for children but once they understand the structure and the fact that the advanced code is simply other ways of writing the sounds we speak, they can be empowered by the logic of this system.

Examining sounds and codes in a logical manner helps children’s brains make sense of complex information. As McGuiness observes, “memory is more efficient when it is organised on the basis of what is more likely rather than what is unlikely. The human brain is particularly adept at storing recurring patterns.”<sup>7</sup> Structuring sounds and codes in this way supports McGuiness’ theory, “our brains do the work for us... once the structure of the spelling code is set up visually, numerous features and patterns come to light.”<sup>8</sup>

**Codes are only included if they appear in five or more words that are common in print.**

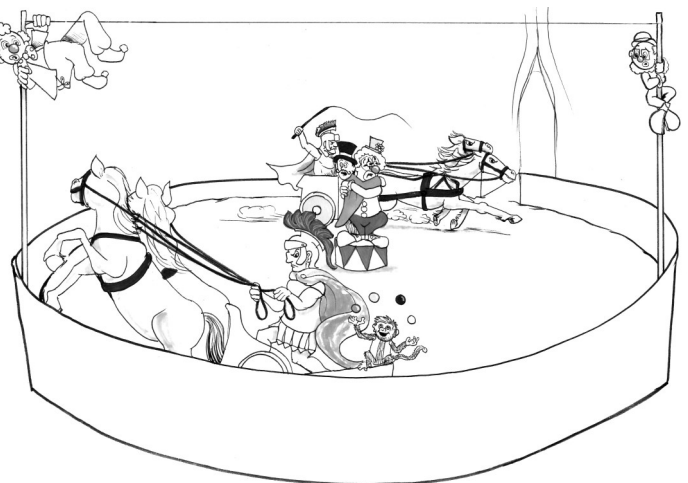
## EXTRAORDINARY ETYMOLOGY

So, the most effective way to teach spelling throughout the key stages is through phonics, job done! Well not quite!

As we developed this scheme it became increasingly obvious that an understanding of the history and origins of the English phonics code is fundamental to a child’s understanding, the two go together. An in depth study of etymology and the history and origins of words and language, not only engages children but brings to life patterns in the English language. In his book ‘*Why don’t students like School?*’, the cognitive scientist David Willingham explores a range of research to emphasise that for deep learning to take place and transfer into the long-term memory “factual knowledge must precede skill.”<sup>9</sup> The stories, facts and anecdotes that come from a deep study of etymology provide children with background knowledge of the English language. Children learn the story and the reasons why words are written the way they are and lay strong foundations on which to base their spelling skill.

Furthermore, etymology is a way of enriching children’s vocabulary and teaching them more than the curriculum words. Once children understand the etymology of one word they can see the connection to other words, no matter how complex they initially might appear.

A great example is the word *circle* which comes from the Latin word *circus*, which means ‘ring’. Hence, we have a circus ring and a ringmaster. A circus in Ancient Rome was a racetrack for chariots which was in the shape of a ring, the most famous being the Circus Maximus. Words that start with *cir* are associated with anything circular such as circuit, circumference and circumstances, being events around you.



# The science of memory and power of practising

The final piece of the puzzle is one that comes from years of experience in the classroom, 'from our time at the coal face'. There is no denying that we have on several occasions sweat blood and tears as spellings that have been learnt one week are forgotten the next (on a good week, it's usually after break! Ha, Ha!)

**So, the third layer to this scheme has to be about making spelling stick!**

As explained previously we avoid arbitrary spelling rules in favour of phonics, underpinned by etymology. The advanced phonics code has been made accessible and more importantly visible to children, which in turn reduces cognitive load. Enabling children to see patterns and logic in the English language boosts memory power.

What is more, at no point in this scheme do we jump into the advanced code without recapping and exploring the basic code first. Rosenshine's principles and our own experience tells us that we need to awaken children's prior learning for 'new learning' to take place. If knowledge is to seep into a child's long term memory it needs to be used alongside what they already know. By exploring codes from the basic to the complex we can build directly on KS1 knowledge and fill any existing gaps before moving onto the advanced code.

Perhaps most importantly, that to make spelling stick there must be constant opportunity for review, practice and overlearning. Ebbinghaus' Forgetting Curve shows that for everybody, adults and children alike, after an hour of new learning, 44% will be forgotten unless recapping and revisiting are made a priority.

In this scheme, words that children need to master as part of The National Curriculum have been integrated into sounds, consequently most words will be explicitly taught more than once. Exposure to the same word through exploring its different sounds and codes creates golden opportunities for revision, practice and over learning.

A further way to cement learning is by ensuring that words and spellings which have been taught reappear at every opportunity. For example, a task in Apostrophe Academy might focus on using apostrophes accurately, but within those sentences will be curriculum words and homophones that have previously been taught.

Finally, we know from experience that children don't easily recall or remember previous learning and therefore, as emphasised by Rosenshine, need retrieval guidance and practice. Contained in the teaching PowerPoints are daily reviews that take place at the start of every Scode lesson. They are varied but simple activities that should take only a few minutes. The purpose of the daily review is to improve fluency and confidence. As Sherrington explains, 'it allows students to re-activate recently acquired knowledge, reducing cognitive load at the beginning of the lesson that is designed to build on this knowledge.'<sup>10</sup>

Further reviews are integrated into the scheme to ensure that learnt material is not forgotten. As well as being a form of assessment, the 'Cracked the Code' lessons at the end of each unit create the opportunity for review and revision before the end of unit test.

