

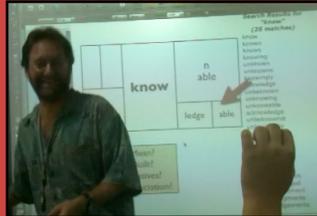
WORDWORKS NEWSLETTER #63

A worldwide challenge to build spelling and word <knowledge> around the world

Structured Word Inquiry World Tour, 2011

Visits on this trip!

- Bali International School
- Singapore American School
- Riffa Views International School (Bahrain)
- NESAWinter Training Institutes (Doha, Qatar)
- American School of Doha
- International School of Luzern and Zug, Switzerland



**Sign up for a 3-Day
WW Summer Course!**
July 5-7 or July 26-28
Wolfe Island, ON
See details [here](#).
[Email](#) to book a spot.

Headlines

- 🍌 *Heads up on the WW Summer Courses*
- 🍌 *Some notes on Pete's World Tour*
- 🍌 *A practical model of an inquiry-led teaching episode about the spelling of the word <know>*

The Details

Sign up for our Summer Courses

Click [here](#) to see details about our summer courses July 5-7 or July 26-28 and [here](#) for a video and examples of the learning from last summer's courses. Between these recent school visits and the NESAWinter conference the interest in these courses is growing quickly. [Email Pete](#) to reserve your spot soon!

Notes from the world tour...

I'm putting the finishing touches on this newsletter as I fly home from Switzerland after my month-long spelling odyssey. I return from this trip more excited than ever about what I see happening in schools.

Some highlights include

- Grade 5 students at the American School of Doha proudly presenting structured word inquiry investigations to the participants at my [Winter Training Institutes for NESAWinter](#) that ASD hosted. Their inquiry skills, use of references and word knowledge were astounding, their passion inspiring.
- Meeting teachers who are doing some of the best integration of structured word inquiry into their every day practice that I

have ever seen. Many of these teachers are achieving this level of success based on two- or three-day workshops a year and half ago. I can't wait to share videos from some of these pre-school and Grade 1 classes! See a slide show [here](#).

- Indonesian teacher assistants initiating on-going email discussions on complex orthographic concepts as a result of an immediate passion to understand what they are seeing in English spelling for the first time. I could hardly sum up what this instruction is about better than these extracts from emails from Yunita, the lead Indonesian teacher assistant at the Bali International School...

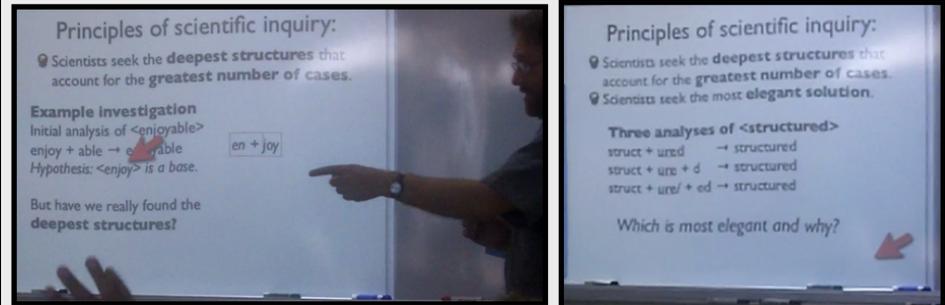
When Pete came to our school last month, it inspired me that how come that I didn't notice that this English spelling is absolutely amazing as there are abundance of thinking process include in it...

Now... I realized that English Spelling really makes senses. There are many things beyond it... So when I want to do a word .. it make me think first.

- And -- always the most rewarding part of my job -- seeing children of all ages bursting out of their seats dying to explain insights about words as we analyze their structure and meaning with matrices and word sums.

What's happening in these schools? There are a number of factors that I think help explain why teachers have been able to go so far in their instruction with such minimal PD. Firstly, with Real Spelling, they have access to a linguistically accurate reference of how English spelling works. But teachers need help to work with this tool. The structured word inquiry frame from WordWorks parallels and taps into the expertise these teachers already have through working with the inquiry-based instruction supported by PYP and/or Understanding By Design.

Learning Scientific Inquiry Principles by Studying Spelling



*The images above are from my lesson in the star Grade 5 class of Anne Deitch at ASD. The principle target of this lesson was not word structure but **essential scientific inquiry knowledge** and **skills** for any domain.*

I used these slides to explicitly establish principles of scientific inquiry that we then used to investigate how <automatic>, <automobile>, and <autism> relate in structure and meaning. Students found the combining form <auto-> from the Greek root 'autos' for 'self' in various dictionaries and hypothesized the word sums <auto + mate/ + ic>, <auto + mobile>, and <aut + ism>.

*We agreed this meaning was relevant for each word, but students perceived the structural problem of inconsistent spellings of the base. What happened to the <o> in <autism>? As scientists, our challenge was to look for a **more elegant solution** with **deeper structures that account for more cases**.*

I offered an alternative analysis in which all three words use the bound base <aut> for 'self' and the first to words with a connecting vowel letter <-o->. This analysis was superior to that suggested by our dictionaries because it accounted for more cases. Students were amazed to see that our dictionary cited <aut-> as a prefix. With that analysis, what is the base in <autism>? But these students had already learned to question this dictionary that gave <relation> and <completion> as examples of words using a <-tion> suffix.*

In Anne's class students have learned not to submit their thinking to references, but to interrogate them. We found both very useful and misleading information in our dictionaries during this session. Fortunately we had scientific principles to guide our how we used them in our analysis.

(Learn more about the connecting vowel letter and combining forms with tutorial films in the "Morphology Album" of the [Real Spelling Gallery](#).)

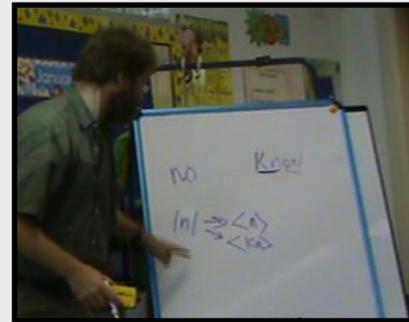
Once teachers gain access to a basic picture of the ordered way English spelling works and see some examples of what this instruction looks like in the classroom, they see how to apply their skills for inquiry based teaching to study of the written word. This confidence to get started brings on the most important reason for the healthy growth of this instruction that I have been seeing. Once teachers have a go investigating words with their students, they can't help but gain the same kinds of insights Yunita described so well. For the first time teachers themselves experience *understanding* the spelling of words as a way of deepening their understanding of word meanings and "many things beyond it." Once teachers gain the confidence to investigate the structure and meaning of words with their students, they realize that they aren't just learning a new way to teach, *they are learning a new way to learn.*

I know it is questionable to rave about the response I'm seeing to my workshops in my own newsletter. The stories and images in these pages and the [slide show](#) from the trip provide some illustrations of the kind of work students are doing in these classrooms. However, no one should take my word for it. With their kind permission, I've listed contacts for NESAs and each school on this tour so that anyone interested can get a description of this teacher training from the recipients of these workshops.

A structured word inquiry episode...

Testing what you and your students <know> about the English spelling system...

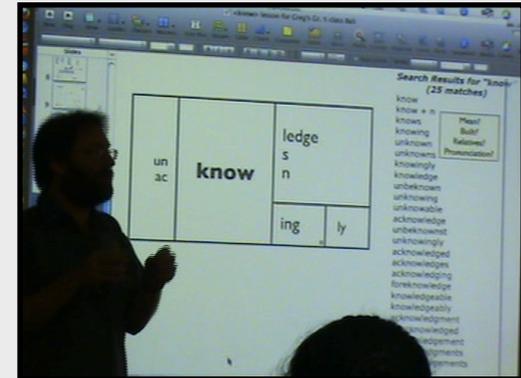
The main purpose of the rest of this newsletter is to provide teachers with a detailed model of a structured word inquiry lesson into the spelling of the word <know>. This lesson



Here are just two images of lessons on <know> from Riffa Views International School.

Left: I'm introducing a lower primary class to the homophone principle and two graphemes for the initial /n/ phoneme.

Right: A lesson moves from the base word <know> to members of its morphological family. We use the Word Searcher to collect a family of related words. With that, we start to build a matrix.



Contacts in order of workshops (Click name for email.)

- [Krista Zavits](#), Principal, *Bali International School*
- [Louise Perdona](#), Director of Curriculum, *Singapore American School*
- [Dorothy Loveland](#) (principal) and [Fiona Al Rowaie](#) (Literacy Coach), *Riffa Views International School, Bahrain*
- [David Chojnacki](#), Executive Director, *NESA*
- [Gail Saey](#), Director of Curriculum and Professional Learning, *American School of Doha*
- [Gary Langenhuizen](#) (principal), [Jacinta Janssens](#) (PYP Co-ordinator), *International School of Zug & Luzern*

illustrates *concepts about the spelling system* and *strategies for scientific investigation* of that system that teachers of children of all ages and abilities can address in their classroom. In fact, I modeled aspects of this lesson in classrooms from pre-school to Grade 7 on this “spelling world tour”.

This free lesson, however, comes with a catch. I am challenging the entire WW community to turn this investigation of the word <know> into a schoolwide project. Teachers from multiple grades can take on aspects of this lesson all at the same time.

Developing communities of learners

Schools that meet this challenge will have teachers and students



from all grades investigate similar spelling concepts at the same time. This strategy will help novice and experienced teachers and students support each others’ learning. Classes that dive into different investigations illustrated in the lesson that follows can share and present their learning with other students and/or parents in any number of ways.

Some teachers may have their classes create and present large word webs and matrices. Others might create grapheme-phoneme charts relevant to <know> and other words that come up in their study. Some classes could make a chart explaining the difference between function and content words while also explaining the homophone principle. (You will see these concepts addressed in the lesson that follows.) Once a class represents its own learning in its classroom, the students could find all sorts of strategies to present their learning either to other classes or to students at schools around the world.



Sharing your learning

The new [Real Spellers](#) website offers an excellent forum through which teachers and students can share work that is finished or in process. My hope is that teachers will share images, stories, and/or videos relating to their investigations. With time, I will share videos of lessons building on the word <know> in classes from pre-school to middle school from this spelling tour. In pre-school I included the words <know> and <no> in an oral activity on homophones. Middle schools children used the word searcher to help them collect words to build matrices and take on grapheme-phoneme and morphological questions such as why the final <e> of <knowledgeable> is not replaced by the vowel suffix <-able>!

The knowledge bank of our community of teachers/learners will expand with every teacher that shares aspects of their classroom investigations of the word <know>. Our understanding of foundational conventions of English spelling will deepen. Our ideas for ways to investigate the spellings and meanings of words in the classroom will expand. To share your learning or see what others have posted, go to this [Real Spellers link](#). Login, choose “Resources” then “Lesson Plans” and click on “Pete’s <know> lesson.”

Why a lesson on <know>?

The idea for this challenge was sparked by Robb MacKay, a teacher in Kingston who shared a story with me at the beginning of his first WW workshop just before this trip. He described what had happened a few days earlier when one of

his students encountered the word <know>. Ever since, I have not been able to get Robb's story out of my head.

"Know More Explosions"

Excerpt from Robb's email

My program is for junior students identified with behaviour problems, problems which make their full-time participation in "standard" classrooms problematic for everyone involved. Most of our students have ADHD identifications, often coincident with LDs and other difficulties, and virtually all of them read more than two grade levels lower than they should. In many instances, the students' behaviour difficulties and their language deficits pose a chicken-and-egg question.

In a guided reading session I was doing with a burly and eager Grade 4 student reading at PM 9, the student pointed to the word "know" and asked what it said. Knowing my students, I prepared him for my answer with "OK, this is going to blow your mind, but . . ." When I finished with "It says /no/," he didn't miss a beat. He tore the book off the table and flung it across the room. And then he started: "It does not f*#!ing say 'no!' " - giving the whole class a language lesson as he tore a path toward the classroom door - "<k> says /k/ and <w> says /w/, so it does not say f*#!ing 'no' !" How am I supposed to learn this sh*!t when the rules change? <K> f*#!ing says /k/!"

After the student de-escalated - and being told that <knight> says /night/ DIDN'T help, I promised him I'd find out why that word is pronounced as it is.

Robb

First of all, it is a heartbreaking story that illustrates the pain and frustration experienced by children who fail to make sense of the writing system. His story also brings into sharp focus a challenge I encourage educators to consider seriously.

Typical instruction about the written word that most teachers received as students (and which we have been trained to offer our own students) accepts the assumption that English has a spelling system that is frequently unreliable. As a result, students and teachers feel stuck memorizing many "exception words" like <does>, <business>, <rough>, and <know>.

I would like to suggest that schools using an inquiry model (such as the *PYP* and/or *UBD*) have an obligation to apply the principles of scientific inquiry to test this assumption about English spelling. A scientific orientation obliges us to eliminate the following plausible alternative hypothesis for why there are so many "irregular" spellings:

The common occurrence of confusing spellings in schools is not the result of an unreliable spelling system but instead the result of linguistically inaccurate and therefore unreliable systems for teaching spelling.

It is clear that neither Robb nor his student's previous teachers received training providing any idea that <know> conforms perfectly to established conventions of English spelling. The model of inquiry-led teaching about this spelling that follows explains spelling conventions that I addressed in lower elementary classes on this trip (E.g., homophones, graphemes available for the 'long o' and /n/, function and content words). These conventions make sense of the spelling of <know> and countless other words. Teachers with linguistically accurate training and resources and a *structured word inquiry* orientation

celebrate when children ask them about spellings like <know>, <business>, <rough>, or <does>. They see words that are typically treated as irregular as particularly rich opportunities to develop children's enduring understandings of the logical way our writing system works and essential knowledge and critical thinking skills for investigating that system through any spelling.

How do you explain the <k> in <know>?

Perhaps the most important and insidious part of this story is revealed by what Robb's student screams out in anger. This student's problem is not that he failed to learn what his teachers have been trained to teach him. The problem is that what he has been taught and faithfully learned fails to make sense of this and so many other words that he encounters.

One might argue that what teachers have been trained to teach children about <k> and <w> is not "wrong" because it is *usually* correct. This argument can be dangerously compelling. Focusing on the fact that current instruction seems to work for most students encourages teachers not to do the work necessary to reframe our own understanding and teaching about spelling. However, I would emphasize that the "good enough" response reinforces the status quo and does not address the fact that current instruction fundamentally misrepresents the basic principles of English spelling as described in linguistics (see [Chomsky 1970](#)). Given that typical instruction leaves a great number of students struggling with our writing system, educators have an obligation to ensure that we do everything possible to make our instruction as effective as possible.

The effort to improve instruction of the written word should include checking the linguistic accuracy of our instruction.

It should be uncontroversial to assert that children have a right to accurate instruction about how their writing system works.

Teachers require training and resources that reveal accurate information about how the system works in order to meet this basic standard of accuracy in instruction. Would we accept schools that misrepresented how our number system works?

Robb's story is that of a teacher whose training and resources fail to explain the ordered conventions of English spelling. In contrast, the scenario described below is that of a student asking about the spelling of the word <know> in a school with teachers who are learning how ordered English spelling is with linguistically accurate resources like Real Spelling and WordWorks. I call our hypothetical teacher Mrs. Burns in honour of my elementary school teacher who long suffered with my spelling!

With this example and all the examples on our website, I hope to demonstrate that the problem with English spelling is not how it works, but how it is typically taught!

1) Mrs. Burns has never specifically thought about the spelling of this word. Through working with Real Spelling and WordWorks she has seen the logic of enough spellings that she used to think were crazy that her first response might be something like this:

"Hmm that's a great question. I've never actually looked closely at that spelling, but I bet there is a good reason for it. Let's see if we can sort it out."

The key message signaled to the student from the start is that there likely is a good reason for this spelling even if his/her teacher doesn't know it yet.

What might linguistically accurate instruction of the written word look like?

Depending on what Mrs. Burns thinks is most helpful for the student and the class at this moment she could start an investigation right now or she could set this question aside for now. Putting up a sticky note on their spelling questions “Wonder Wall” helps make sure that the class reminds her to look at this spelling later. This time Mrs. Burns decides they have time to use this question to try an [inquiry-led investigation](#) to see how far they can get as a team of learners.

2) Mrs. Burns has been working with accurate resources for a bit so she does know that <kn> is a digraph for /n/ that is used only initially. Nonetheless, part of the purpose of inquiry-led teaching is to model wise steps to take when investigating spellings you don’t understand, so Mrs. Burns refers to their class reference chart (right) even when she knows something about the spelling. She finds it helps her remember important questions she forgets otherwise.

Mean?
Built?
Relatives?
Pronunciation?

[Note: A chart prompting the same questions, but with more detail can be found on the reference chart booklet [here](#).]

3) Ah yes, the chart reminds Mrs. Burns to discuss the meaning of the word first. She asks for ideas of what the word <know> means. The ensuing discussion brings up the fact that this is the word about “knowing” or “understanding” something. They recognize that this is not the word <no> that sounds exactly the same. Now the class is reminded of the **homophone principle** that they ran into when they investigated the words <to> <too> and <two>. Mrs. Burns reminds the class that this is the idea that when two words

have the same pronunciation but have no connection in meaning, they are spelled differently *where possible* to mark the difference in meaning.

Because the reference chart reminded the class to start with meaning, the first window of *understanding* this spelling has been offered. It was discussing the meaning of the word that led to the observation that there are two words that sound the same, <know> and <no>. Mrs. Burns reinforces the order of English spelling by pointing out that it is a good thing that we have more than one way to write a word with this pronunciation!

With luck this class has already worked on the concept of “function” and “content” words and have a sticky-note reference chart started like the one below.

Function Words	Content Words	<ul style="list-style-type: none"> • Only function words use one or two letters (they can use more). • Content words use at least three letters.
or	ore oar	homophones if one of a set of homophones is a function word, it will use fewer letters than its homophone(s).
to	too two	
be	bee	
he she		
on in		

This is another example of the kind of reference charts in the [booklet](#) that you can download! I highly recommend that you go to this [link](#) to see a Real Spelling tutorial film that explains what function and content words are. You will see that this concept helps you understand the spelling of a great number of words that are treated as early “sight words” to memorize.

Now a new homophone pair can be added to their list. Because <no> has only two letters, it must be a function word. The word <know> is more than a grammatical function word, so it can't be spelled with two letters.

Checking the chart, Mrs. Burns decides to go on to the “How is it Built?” question. She knows she will come back to the grapheme-phoneme correspondences later. However, she's pleased that the function/content word relationship of <know> and <no> has given her a good idea *why* their target word uses <kn> instead of the more typical <n>.

[Hint: Content words need more than two letters!]

Even though she is sure that that this is a base word, she asks if anyone can see any potential prefixes or suffixes that might be used in this word, or if they think it a base. There is no tempting affix, so it is agreed that this is a base word. Next question...

4. Relatives? Can anyone think of related words? A few students come up with a few words like <knowing>, <knows>, <unknown>. Then someone asks about <knew>.

“Hmm. That's interesting,” Mrs. Burns says. “The past tense of <know> doesn't use an <-ed> suffix, but it does use the <kn> for /n/.”

A student might comment, “Hey, <knew> has a homophone too! It's not like something that is <new> instead of <old>!”

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Mrs. Burns hadn't even thought of that, but agrees that this is an excellent point. She adds that it makes sense that both <know> and <knew> use an initial <kn> to mark that these words are related in meaning. Mrs. Burns and the class are still confused about how to deal with <knew>, so they add a note to the Wonder Wall to come back to that later.

(Mrs. Burns might have learned about this homophone principle by working with Real Spelling Themes K1 on early etymology that presents the homophones <hear> / <here> and <to> / <two> / <too>, and/or Kit 11 on homophones part 1).

H	The suffix <-ed>	Compounds -1-
I	Early etymology -1- the families of <hear> and <two>	Homophones -1-
J	Digraphs for 'long' <a>	Phonological matrices -2-

Mrs. Burns has three words on the board from the class that could be used to make a matrix but decides to see how big a bank of related words they can find by going to the [Word Searcher](#).

They come up with 25 words (see next page), which is a convenient number of words to work with. It looks like all of these words are morphologically related. They do all seem to be related in meaning. They have to do word sums to confirm that they are structurally related as well. As they start to make word sums, a great question comes up on exactly this point. Struggling to make a word sum for the word <known>, a student asks if <-n> is a suffix. Mrs.

Burns doesn't know, so they add another post-it for the Wonder Wall.

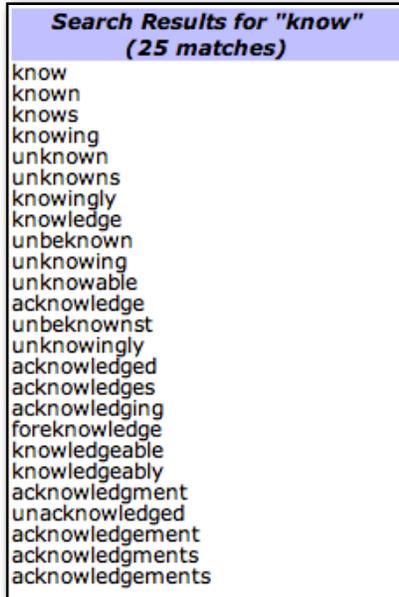
After class she looks in the dictionary for this suffix and she finds that <-n> is just a variant of the Old English suffix <-en>. She regrets that she didn't think to look up this suffix when the student asked. Oh well. Next time!

Mrs Burns gives the class about 5 minutes to work in teams to make as many word sums as they can from the list.

After she builds a starter matrix on the board as students shout out affixes from their word sums.

un ac	know	n
		ing s
		ledge

Every time students suggest affixes, she has them use the word from their sum in a sentence. She has them spell the word out loud, making sure they pause at the plus signs between morphemes. When she asks what the base of this matrix is, her students know to spell out the letters. Mrs. Burns congratulates them for not saying the word <know> -- reminding them that we don't hear that pronunciation in the word <knowledge>!



After representing a handful of the words from the list on her matrix, she decides to copy and paste this word list into a Word document so that in a later class students can work in groups to make their own matrices that go beyond their class matrix.

Since she has a bit more time and because the kids seem to be focused, Mrs. Burns decides to model using dictionaries to look at the etymology of this word (another way to take on the "Relatives?" question). A quick look in a dictionary shows this etymological information:

ORIGIN Old English cnāwan (earlier gecnāwan) [recognize, identify,] of Germanic origin; from an Indo-European root shared by Latin (g)noscere, Greek gignōskein, also by can 1 and ken.

Mrs. Burns isn't so comfortable with the etymological stuff yet, so she's not sure what to do with this other than to comment that apparently <know> is an Old English word, not a Latin or Greek word that they see a lot when they look up words. Next question....

- 6) "OK," Mrs. Burns says. "Let's look at the pronunciation of <know>. What are the grapheme-phoneme correspondences?"

She points out that first part of <know> is pronounced /n/, so this must be one of those words that uses <kn> for /n/.

Mean?
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Relatives?
Pronunciation?

[Aside: The <kn> for /n/ was the one thing Mrs. Burns knew when the question was first asked. Think how much has been learned about this spelling so far beyond this one point. If she had not used the reference chart to remind her to start with meaning, structure and relatives before pronunciation, she and her students would have been denied access to many rich spelling concepts.]

Mrs. Burns asks if the students can prove <kn> is a digraph for /n/. They suggest <knight> and <knee> but not many others. Mrs. Burns also has trouble thinking of more. A student suggests they try the Word Searcher again. Mrs. Burns types <kn> in the “search” field and...

Whoa! 162 words this time. Below is just a selection of those words.

Search Results for "kn" (162 matches)		
knee	unknown	seasickness
knew	banknote	thicknesses
knit	cockneys	unbeknownst
knob	dankness	unknowingly
knot	darkness	acknowledged
know	doorknob	acknowledges
knack	knackers	camiknickers
knave	knapsack	doorknockers
knead	kneading	homesickness
kneed	kneecaps	knuckleheads
kneel	knickers	pocketknives
knees	knighted	acknowledging
knell	knightly	foreknowledge
knelt	knitters	knowledgeable
knife	knitting	knowledgeably
knits	knitwear	knuckleduster
knobs	knockers	acknowledgment
knock	knocking	knockoff
knoll	knockout	knickerbockers
knoll	knottier	knuckledusters
knots	knottier	unacknowledged
known	knotted	acknowledgement
knows	knuckled	acknowledgments
knaves	knuckles	acknowledgements
	meekness	

Lots of questions follow. What’s a <knoll>? What’s a <knave>?

Mrs. Burns looks up a couple of these words and notices that all the words with a <kn> for /n/ turn out to be of Old English origin. This provides another interesting hypothesis to add to the Word Wall. Is the <kn> digraph for /n/ found only in words of Old English origin?

The teacher with the Real Spelling Tool Box who chooses to come back to this question later could pull out his or her RS overview chart after class and find Kit 2B “The initial phoneme /n/: four ways of writing it”. This theme will provide that teacher with plenty of content to build a lesson not only on the word <know> but also on many other concepts.

	Kit K	Kit 1	Kit 2
A	Writing and recognising the vowel letters	The <i/y> conventions: the basic pattern	The grapheme <igh> 2: vowel + <igh>
B	The suffixes <-ly> and <-ful>	Plurals -1- whether to use <-es> or just <-s>	the end of bases: <k> or <ck>? <ch> or <tch>?
C	The suffix <-ing>	When suffixes force doubling -1- monosyllables	The initial phoneme /n/: four ways of writing it

[Note: This hypothesis will be confirmed when she later looks at that Real Spelling theme on four ways to write the initial phoneme /n/.]

“Hey,” a student notices, “<seasickness> can’t use a <kn> ‘cause that’s a <-ness> suffix.” Mrs. Burns writes a word sum as that student names each morpheme.

sea + sick + ness → seasickness

After the ‘rewrite arrow’, the structure of this word is correctly spelled out like this:

“s--e-a--pause--s--i--c-k--pause--n--e--double-s”

The plus sign helps make it clear that there is no <kn> in this word when they spell it out loud. Spelling out with the word sums helps show that this word uses a <k> and an <n> not a <kn>. Spelling out the word sum also highlights digraphs like <ea> and <ck> and the fact that there is a “double s” in the <-ness> suffix.

Bringing it back to the grapheme-phoneme question, Mrs. Burns says, “OK, we have plenty of evidence for a <kn> digraph for /n/ in <know>. How about the <ow> for the long <o>? Do you know other words that use that digraph for the long <o>?” Students offer <row>, <snow>, <grow>, so that is resolved quickly.

“Good. we can add <ow> to our graphemes for the long <o>. Now, who can spell <know> for me?” asks Mrs. Burns.

Mrs. Burns thought about asking if <ow> can represent any other **phonemes**, but she is not yet comfortable using that language with her students.

A year or two later she laughs at herself for how long she hesitated to use the word ‘phoneme’ with students. The spark for starting to use the term was a student’s question about the word sum for the word <grapheme>. Mr. Burns regularly talked about graphemes, digraphs and trigraphs, but she had never investigated the structure of the word.

Like usual, she wrote the word on the board and asked if students recognized any familiar morphemes. A student raised her hand and said it had the word <graph>, and suggested that would be the base. That meant that there must be a suffix <eme>. (Could it be a bound base <eme>?)

graph + eme → grapheme

The base <graph> made sense as a unit of ‘writing’. With that word sum in place, Mrs. Burns couldn’t resist introducing the word <phoneme> and it’s word sum.

phone/ + eme → phoneme

When she asked what people thought a “phoneme” was, students suggested that it must be a ‘unit of sound’. Before this investigation Mrs. Burns would say things like “What sound does that grapheme represent?” After this class she started to say things like “What phonemes can that grapheme represent?” The

Lots of hand go up as this is obvious now. The first student says, “k-n---o-w” emphasizing the two digraphs. Thinking of the word <knowledge>, but not saying anything yet, Mrs. Burns asks if anyone can think of any other pronunciations <ow> can represent.

She gets a bunch of blank stares. “Well, look at our matrix, can anyone see a word where the <ow> is not representing the long <o>?” Now the hands go up when kids see <knowledge>.

“OK, great work.” Mrs. Burns brings the investigation to a close for now. “We have some questions on our Wonder Wall to keep in mind and some new affixes to add to the morpheme chart. Maybe in our next computer lab I can give you some time to get in groups to make some matrices on this base.”

Summing up

I do not suggest that all of this content *should* be taught whenever this word comes up. I do argue, however, that teachers deserve training and resources that makes it *possible* to present any of this content when they judge it to be the appropriate time.

We have seen that the word <know> offers rich opportunities for investigating the conventions that govern countless spellings. Any teaching resource that presents words like <know>, <does>, or <business> as “irregular” words to memorize fails to represent how spelling works. Such resources cheat students and teachers of opportunities to understand our writing system. As we saw from Robb’s student, the consequences of not understanding our writing system can be profound.

Peter Bowers, February 19, 2011