Closing the reading gap. (Disciplinary Literacy.) If you can read this, thank a teacher.

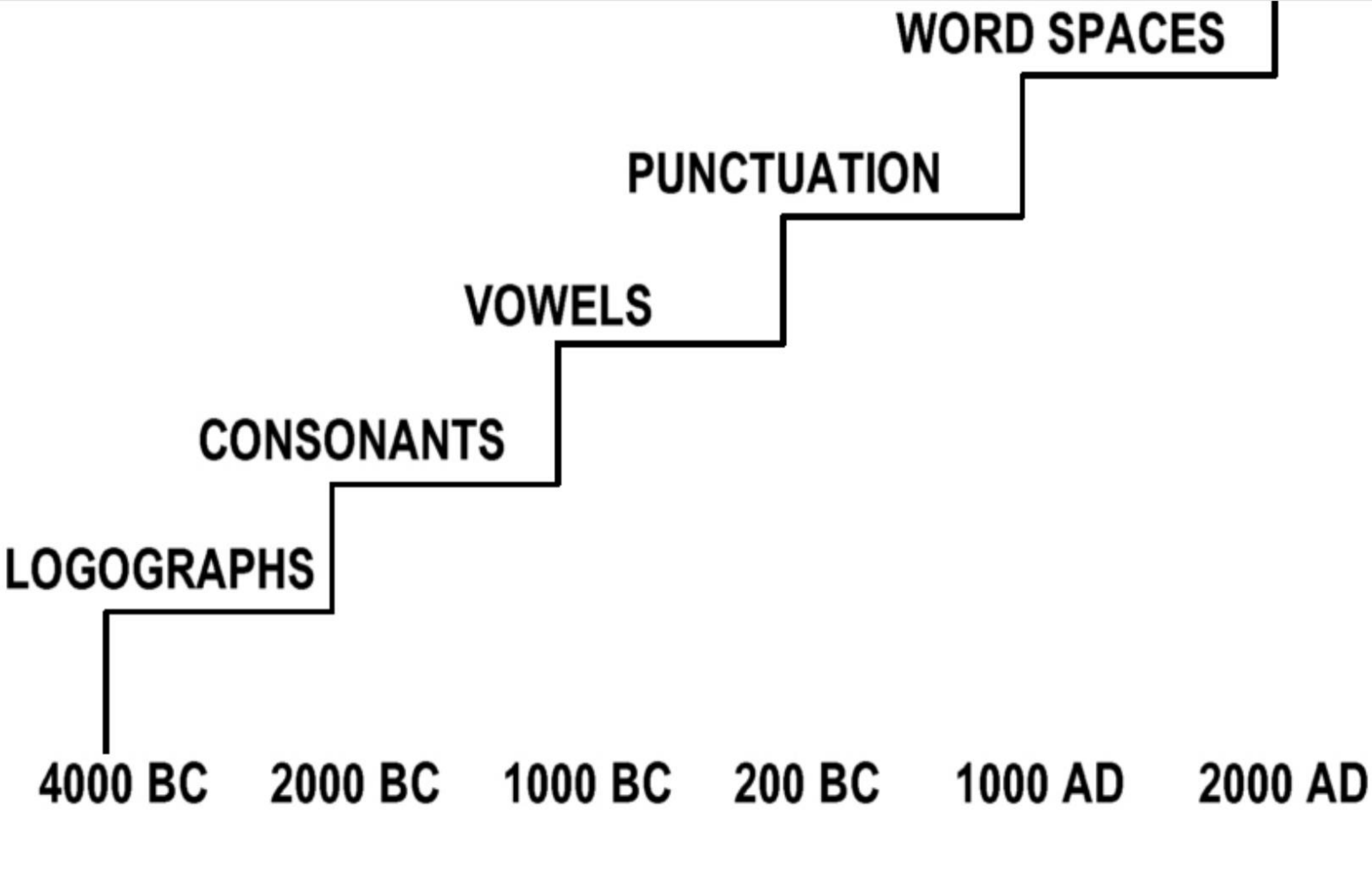
- Reading is an incredibly complex skill.
- Your eyes focus on each word for around 250 milliseconds before sweeping from left to right to search for more information.
- Your brain nearly instantly processes the marks on the page into sounds and then interconnected meaning.
- What is your first memory of reading?

Reality for a lot of students.

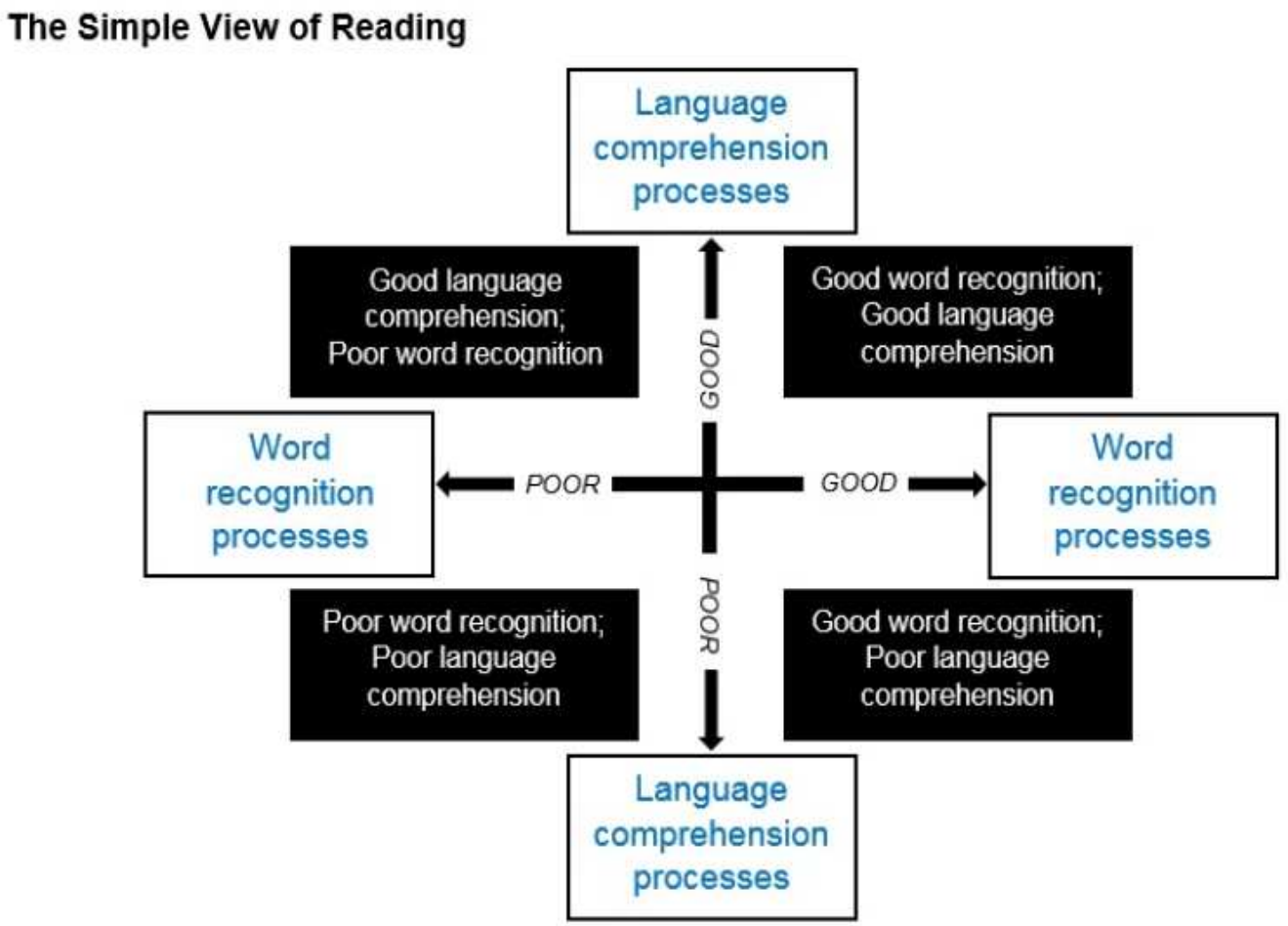
The empty bookcase. At home, at school and in the wider community.

Is our neighbourhood our destiny? Or can reading create choice and potential for the future….

We are all responsible for the teaching of reading. Teachers must be positive role models and 'ringleaders for reading.'


WORD SPACES
PUNCTUATION
VOWELS
CONSONANTS
LOGOGRAPHS
4000 BC
2000 BC
1000 BC
200 BC
1000 AD
2000 AD

Rose report simple view of reading (2006)



Children need to have both good word recognition and good oral language comprehension on order to read.

Good word recognition is dependent on *decoding* rapidly.

Good oral language comprehension is dependent upon the *deliberate use of talk.*

Children also need to be able to *discriminate* sounds.

Reading gaps. Reading profoundly affects our lives, for the rest of our lives.

- In 2019, only 73% of primary children left school at the required level of reading. So, one in four children do not read well and this could continue throughout their life.

- A D of E survey shows that only 31% of children are read regularly to at home. Children who are read to regularly by their parents before the age of 5 perform better at school at age 16. This is across all subjects.

https://www.youtube.com/watch?v=_Ei3xVQJaM8

Reading gaps.

- Children who are read to daily at home hear over a million words more than those are not.
- Able readers read more, independently.
- The reading rich get richer, the poor get poorer. Over time, this translates into academic success or failure.

Reading is the mastery skill of the curriculum, so learn to read, or read to learn?

- KS1- synthetic phonics and vocabulary building.
- KS2- comprehension, text structures and cohesion
- KS3- Transition time from KS2, which is heavily fiction led. We need to support the teaching of academic, non-fiction reading. Remember that at KS2 the humanities subjects are often marginalised.
- KS4- The need to distil complex reading and text. The reading and vocabulary gap can widen significantly at this point.

Never assume!

Never assume that the text offered has been understood, even with the highest attaining group of students.

Questioning and summarising must be used to check for understanding and gaps in comprehension. This will take time.

Information text- more widely used at Secondary level, but KS2 is narrative driven.

Information text is dominant at KS3 and KS4. To be successful and strategic readers, the pupils need to be reminded and taught about the text structures.

1. Description- a text where the author simply describes something, such as an animal habitat in biology.
2. Sequence- a text where the description is ordered sequentially, such as a chronological timeline in history
3. Cause and effect- where the author describes relationships between events and outcomes. For example, a physics text describing Newton's laws of motion.
4. Compare and contrast-the author seeks to make comparisons and connections, e.g. two artistic periods may be compared.
5. Problem and solution- both points are presented e.g. in food technology the issue of unhealthy eating is explored along with possible solutions about a balanced diet.

What difficulties can you find in subject specific reading? (Disciplinary Literacy.)

Look at/share the text you have brought with you. Please work in cross-faculty groups.

What barriers/ difficulties could the text present to the students?

The students have 6 lessons a day, and will need to draw on a wide range of skills in order to access the curriculum successfully.

How does a Historian read? A Geographer?
How does a Scientist read? What skills are specific to maths and reading as a mathematician? Are there skills specific to your subject?

Supporting reading. Read with a role and goal. Specify the purpose with the students, ‘We are reading this because……’

Prime and pre-load the ‘readiness to read.’

1. Identify- What I am reading.
2. How I am reading this (as a historian, geographer, scientist, ,mathematician etc.)
3. Why I am reading this- what is the goal?

Disciplinary Literacy-How to support.

Before reading:

Ask questions about the text or topic.

Activate prior knowledge (connect with dual coding and cognitive load)

Make predictions

During reading:

Ask questions to monitor understanding

Make connections within the text (active use of cognates)

Update and make new predictions

After reading:

Seek coherence and summarise the text

Generate further questions about the text

Evaluate your reading.

This can be broken down into

Read with a role and goal.

Can then be followed by 3,2,1.

Practical strategy for developing strategic readers. 3,2,1.

For this strategy, the student is encouraged to:

3- Generate three essential points to consider, connect and remember.

2- to identify two key vocabulary items to know, use and remember.

1- the one big idea to understand, explain and remember. In doing so, they summarise and distil their understanding.

Reading across the curriculum. Understanding difficulty and the ‘arduous 8.’

1. Background knowledge –the sheer range of necessary knowledge and related ideas in a passage of text.
2. Range and complexity of vocabulary (including word length).
3. Use of abstract imagery and metaphorical language.
4. Sentence length and syntax.
5. Narrative or whole text structures.
6. The generic elements of the text, e.g. a biographical account in history.
7. The scaffolds present, or absent in a given text, e.g. key words or glossary
8. Text length

Reading across the curriculum.

Different subjects require greater and more varied demands on reading skills. Specific skills need to be addressed across the curriculum. We can apply a specific reading lens to every subject domain.

How does a mathematician read?

How does a scientist read?

Maths and Science.

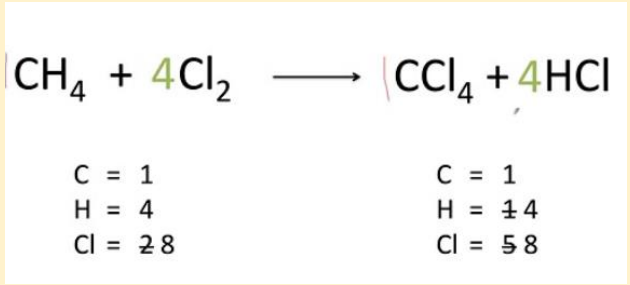
Students face special challenges when they encounter reading in mathematics and science, but teachers can use a variety of strategies to help. Of all the content-area texts that primary and secondary school students read, mathematics and science are arguably the most difficult. Helping students with mathematics and science texts, however, is not the same as teaching students to read. Rather, it's helping students make sense of—and learn from—science and mathematics text. The conceptual density of math and science materials is one of the major reasons for students' difficulties. Schell (cited in Reehm & Long, 1996) maintains that mathematics texts can contain more concepts per line, sentence, and paragraph than any other kind of texts. Science texts can be equally concept-laden. According to Holliday (1991), a high school chemistry text can include 3,000 new vocabulary terms—more than students are expected to learn in foreign language classes. In addition, reading mathematics and science requires special reading skills—skills that students may not have used in other content areas. For example, in addition to comprehending text passages, students must be able decode and comprehend scores of scientific and mathematical signs, symbols, and graphics. Students also need to read and interpret information presented in unfamiliar ways—not only left to right, but also right to left (number lines), top to bottom (tables), and even diagonally (graphs). Further, students must learn how to read text that is organised differently than that in other core subjects. Pupils can also confuse related mathematical terms, such as numerator and denominator.

Read like a scientist.

Students will grapple with a range of unique features.

1. Scientific vocabulary.
2. Word equations - hydrogen+oxygen → water
   (reactants) (product)

3. Symbol equations.



4. Complex grammatical features, such as parenthesis.

History.

A historian will pursue patterns of change and causality. They will compare and contrast, identify key moments and apply dates, names and times to the perceived facts. Language use will be very sophisticated, along with reading a variety of sources and corroborating information. This is a distinctive way of reading and thinking. A historian follows a neutral, objective, enquiry-led, fact-checking stance. Very useful to follow in the age of ‘fake news.’

Student need to read historical text with the aim of developing ‘period sensitivity,’ or a rich mental model of a time in the past.

Historians deploy unique reading strategies, but is this shared with the students?

Historian reading strategies.

Sourcing: Pupils deliberate over the author of the source and the conditions of its creation. They consider the message the source intended to convey and the validity of the author.

Contextualising: Pupils root the source in time and place, seeking to understand how social and political sources influenced the text.

Corroborating: The pupils corroborate the source with a range of related sources to gain the necessary ‘period sensitivity.’

Geography reading strategies.

A Geographer applies a range of analytical perspectives and seeks out trends and patterns. Key perspectives are:

*Political perspectives

*Environmental perspectives

*Social perspectives

*Economic perspectives.

A geographer will also read a range of multimodal texts. For example, a geographer who is posed a question about sub-Saharan Africa may need to draw upon the reading of maps, statistics and personal accounts to better establish the relationship between human systems and the physical environment.

Reading in MFL

The study of MFL is of immense value to students, but the reading of another language offers a range of difficulties. This is often due to students finding the decoding of English a challenge and then trying to apply those skills to another language. Also, many of the reading skills which are used more 'normally' tend to be abandoned when reading in another language. Studies have shown a strong tendency to simply start reading from the beginning of the text and try to decode and understand every word that is met. This can be considered a 'field dependent' style of reading. Inevitably, this can cause frustration when meeting words which are not yet understood.

MFL teachers are good models of reading and should use their subject confidence and knowledge of language to explicitly discuss how they tackle reading in another language. Evaluating a text using the 'arduous 8' matches perfectly with MFL, as does the Scan, step, secure approach.

SCAN STEP SECURE

Scan- student will read the words and sentences and identify key words and unknown vocabulary. Discuss any unknown vocabulary and clarify misconceptions.

Step- a second read, to look again at keywords/diagrams/dates/symbols. This time using knowledge gained from first scan and discussion.

Secure- another read to secure understanding correct any errors before moving on.

Skimming- read rapidly for a general overview of the text

Scanning- read rapidly to find specific information or words

Slowing down

Re- reading- (Very valuable, must plan time for it.)

Checking the index, glossary or scaffolds

Asking questions

Summarising.

Evaluate text using the ‘arduous 8.’

Look at some text that you would give your students to read. This could be a textbook, information, instructions on a worksheet or details from a PowerPoint.

Now assess that text with the ‘arduous 8’ in mind. Evaluate the demands of the text on the reading skills of the student.

Consider- does any part of that reading need to be explicitly taught?

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SECURE

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Scan, step, secure and then use 3,2,1.

Scan the text first. The aim for this is to actually get to the end of the text.

Step- identify key words to look up and understand. Aim to grasp the general ‘gist’ of the text at this point.

Secure- read the text again, this time using identified key vocabulary and summarise the meaning of the text.

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Helpful strategies.

1. To successfully learn another language, decoding skills are crucial.
2. The decoding must be taught and compared to English, which of course, may not match in terms of phonics.
3. Low motivation to read in MFL can be an issue. Text needs to be short, chunked and interesting. Reciprocal reading as a classroom strategy could be helpful.

Vocabulary. Read a well known text in English first, so that key words are clear and highlighted. Then read the translation of the text, with the equivalent key words highlighted.

Etymology- using root words across languages to connect existing cognates