## Literacy Impact



## Morphology

Morphology is the conventional system by which the smallest units of meaning in words bases, prefixes and suffixes; combine to form complex words (Bowers, P. N., Kirky, J.R., \& Helene Deacon, S). In its simplest form it is the study of the structure of words and their meanings.

Some studies have found that explicit teaching of morphology can have a positive impact on reading comprehension; including significant progress for students with English as an Additional Language or Dialect (Amirjalili \& Jabbari, 2018). There is also evidence that explicitly teaching students the patterns for morphemes had a significant effect on improving decoding and phonological awareness (Goodwin \& Anh, 2013).

It is important that children are taught the interrelation between morphology, phonology and etymology, as when we combine all three areas, it teaches children how our writing system works (Bower \& Shanahan, 2021). Morphological instruction however, should never replace a structured synthetic phonics approach and the other essential elements in the Science of Reading.

During systematic phonics instruction in the early years, students can be taught the function of morphemes in reading and spelling by introducing simple plural suffixes such as 's' when reading and writing CVC words. For example: pet=one pet pets=more than one pet (Shanahan, 2021).

## Definitions

morpheme: the smallest unit of meaning within a word. Morphemes are classified as either being a base or root word (bed, stand, rupt) or an affix (a bound morpheme that occurs before or after a base or root word)
etymology: the origin and historical development of a linguistic form, tracing its language from one to another.
affix: a bound morpheme that comes before or after a base or root word (prefix or suffix)
prefix: A bound morpheme that comes before a base or root word (dis- pre- un-)
suffix: A bound morpheme that comes after a base or root word (-ly -ing -ed)
base word: a word that can not be broken down into a smaller meaning eg. head, happy. Also referred to as a root word.
root word: a word that can not be broken down into a smaller meaning eg. rupt, astro. Also referred to as a base word.

## Layers of Language



Adapted from M. Henry, 1987;
After Calfee \& Associates, Stanford University

Literacy Impact
Educational Services

## Recommended Teaching sequence

## 1. Anglo Saxon morphemes -

- Based on the vocabulary that children already use: Explicitly teach base words, prefixes and suffixes and how each influence a word's meaning
- Teach words with multiple morphemes using a Word Matrix and Word Sums
- Start with words with one base word (one morpheme only) eg. CVC words such as sit, pig, jump; and teach simple suffix plurals such as 's', 'ing' and how they change the meaning (cat, cats= 2 cats)
- Identify base words in longer words (pig, pigs, jump, jumping, jumped, play, playing, playful)
- Look at how prefixes can change meaning (misuse= use the wrong way/badly; tie a shoelace/untie a shoelace)
- Teach and review nouns as students need to apply knowledge of suffixes and prefixes eg. noun: -er, -hood, -ness, - or, -ist, -ment,
- Teach and review adjectives as students need to apply knowledge of suffixes and prefixes eg. -er, -est, -ful, -ous, -able, -ible
- Teach and review adverbs as students need to apply knowledge of suffixes and prefixes eg. -ed, -ing, -en, -fy, -ate, -ize

2. Latin morphemes - as above
3. Greek morphemes - as above plus: teach 'c' as in cyclone, 'ch' as in chemist, 'ph'- as in phone

Word Matrix- word family map

|  |  | ful | ness |
| :---: | :---: | :---: | :---: |
| un | help | S |  |
|  |  | ing |  |
|  |  | ed |  |
|  |  | er | s |

# Word Sums- showing the underlying structure of a word with more than a base 

un + help + ful + ness $\rightarrow$ unhelpfulness

## Word Webs game:

1. Explicitly teach the new morpheme and its definition
2. Ask students to redefine the morpheme and its meaning into a sentence
3. Students draw some of the words with the morpheme in their Vocabulary Books
4. Practice reading the words with the morphemes in subsequent days
5. Play Word Webs with the targeted morpheme or review morphemes.
6. Students work in mixed ability pairs to list as many words as they can with the target morpheme.
7. Pairs share their words with the class. Students need to be able to say the meaning of the words.
8. Pair or group with the highest number of words is the winner.


## Common Morphemes

| Prefixes | Meaning | Examples |
| :---: | :---: | :---: |
| in- | into; not | into, incomplete |
| un- | not | undo, untie |
| mis- | wrong | mistaken, misunderstand |
| dis- | away, separate, not | discolour, disappear |
| de- | down, away from | deescalate, depend |
| pre- | before | prejudice, preview |
| a- | not, in, on, without | atypical, aside |
| pro- | in favour of, positive, in front of | professional, proactive |
| con- | together, with | connect, confident |
| com- | with, together | compliment, command, company, committee |
| re- | back again | replay, recycle |
| sub- | under | submarine |
| ex- | out, away from | extension, extraordinary |
| Suffixes | Meaning | Examples |
| -s | more than one | cats, eats |
| -er | one who does; more | teacher, banker; shorter |
| -ly | in a certain way | quickly, naughtily |
| -ed | in the past | walked, cried |
| -ing | an action or result | painting |
| -less | without | boneless |
| -ship | how something is, to do with status | friendship |
| -y | a state of being | bony, shiny |
| -ible | ability | flexible |
| -ful | having qualities of, full of | beautiful |
| -ion | a process, state or result | decoration |
| -able | able to be | inflatable |
| -est | most | biggest |
| -ish | a little | childish |
| Root/base words | Meaning | Examples |
| hope | (from Greek 'elpis) to anticipate with pleasure | hoping, hopeful, hopeless |
| play | (From 'plega') to move at a brisk pace, move with joy | playful, player, playing |
| walk | German/Dutch | walked, walking, sidewalk |
| able | ability | unable, disable, ability |
| port | to carry (Latin) | transport, porter, reporter |
| ject | to throw, to throw down (Latin) | inject, interject, subject |
| rupt | to break (Latin) | disrupt, interrupt |

## Prefixes: Example Lesson

1. Write the morpheme (prefix) dis- on the board
2. How many syllables? (1)
3. How many phonemes? (3)
4. Explain meaning: dis- is often found at the beginning of a word. It is a prefix. It means 'the opposite of, away/not
5. Word building: I am going to build a word with dis- as a prefix. What could it mean? When we see a word that starts with dis- we know it means not/away/opposite of.
6. Word generation: Can we think of words that begin with dis-? Model generating a list.
7. Practice: Let's make some more words with dis- (in mixed ability pairs), using the Word Web. Students could use magnetic morphemes.
8. Review: Put the dis- word in the Word Jar. Follow up activities/review in subsequent days/weeks.

## Polysyllabic/Multi-morphemic level Word Building Example Lesson:

* Could use magnetic morphemes for this lesson
1.These are the morphemes that make the word disruptive: dis- rupt- ive

2. Build the word: 'disruptive’
3. How many syllables? Let's clap it out.
4. What is the meaning of disruptive? Explain the meaning of each morpheme.
5. Here is a sentence with 'disruptive'. Can you think of a sentence for disruptive? Think Pair Share
6. Show the word with alternate morphemes using the Word Matrix or Word Sums graphic organiser.
7. Follow up activities/review/Word Jar in subsequent days/weeks

## Word Matrix template

~For teaching words with multiple morphemes use a Word Matrix or Word Sums (Shanahan, 2021)

|  |  | ful | ness |
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## Word Sums

~For showing the underlying structure of a multi-morphemic word

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## Activity cards:

## Anglo Saxon, Latin and Greek morphemes

Cut and laminate back and front, to make words, with magnets attached; or use them as a Card Shuffle to sort into root words, suffixes and prefixes

## Anglo-Saxon morphemes

| Un | 'un' Anglo Saxon prefix, Meaning: not |
| :---: | :---: |
| end | ‘end', Anglo Saxon Prefix, Meaning: the opposite side, limit |
| hand | 'hand' Anglo Saxon root, Meaning: person who works with their hands |
| King | 'king', Anglo Saxon Root, Meaning: leader of people |
| come | 'come' Anglo Saxon Root, Meaning: together, come |
| head | 'head' Anglo Saxon Root, Meaning: chief person, leader |


| hold | 'hold', Anglo Saxon Root, Meaning: watch over, to keep, tend to |
| :---: | :---: |
| Way | 'way', Anglo Saxon Root, Meaning: path, road |
| rain | 'rain', Anglo Saxon Prefix, Meaning: wet, moist |
| with | 'with', Anglo Saxon Root, Meaning: back, against |
| hood | hood', Anglo Saxon Root, Meaning: covering, protection, guard |
| court | 'court', Anglo Saxon Root, Meaning: enclosed yard |


| high | 'high', Anglo Saxon Root, Meaning: of great height, exalted |
| :---: | :---: |
| fare | 'fare', Anglo Saxon Root, Meaning: food, go |
| cast | 'cast', Anglo Saxon Prefix, Meaning: to throw |
| ing | 'ing', Anglo Saxon Suffix, Meaning: form of verb- action |
| less | 'less', Anglo Saxon Suffix, Meaning: without/lacking |
| 1 y | 'ly', Anglo Saxon Suffix <br> Meaning: having the quality of |


| some | 'some', Anglo Saxon Root, Meaning: plural, same |
| :---: | :---: |
| Self | ‘self', Anglo Saxon Root, Meaning: one's own person |
| farm | 'farm', Anglo Saxon Root, Meaning: land-cultivated |
| $1 e$ | 'le’, Anglo Saxon Suffix, Meaning: to, liable to |
| ward | 'ward', Anglo Saxon Root, Meaning: guard, protect |
| bear | 'bear', Anglo Saxon Root Meaning: in a satisfactory manner |


| Wel | 'wel', Anglo Saxon Root, Meaning: in a satisfactory manner |
| :---: | :---: |
| ed | 'ed', Anglo Saxon Suffix, Meaning: past tense (verbs) |
| yard | 'yard', Anglo Saxon Root, Meaning: garden, enclosure |
| İ'h | 'ish', Anglo Saxon Suffix, Meaning: adjective form-belonging to/ somewhat |
| fore | 'fore', Anglo Saxon Root, Meaning: before, front |
| dom | 'dom', Anglo Saxon Root, Meaning: house |


| knight | 'knight', Anglo Saxon Root, Meaning: servant, boy, youth |
| :---: | :---: |
| bow | 'bow, Anglo Saxon Root, Meaning: to bend |
| be | 'be’, Anglo Saxon Root, Meaning: all round, thoroughly |
| lay | 'play', Anglo Saxon Root, Meaning: move lightly and quickly |
| help | 'help', Anglo Saxon Root, Meaning: assistance |

## Latin morphemes

| rupt | 'rupt' Latin Root, Meaning: break |
| :---: | :---: |
| pro | 'pro', Latin Prefix <br> Meaning: before, in favour of, on behalf of |
| dent | 'dent', Latin Root, Meaning: tooth |
| struct | 'struct', Latin Root, Meaning: build |
| dis | 'dis', Latin Prefix Meaning: apart/away |
| centi | 'centi', Latin/Greek Prefix, Meaning: one hundred/one hundredth |


| ive | 'ive' Latin Suffix <br> Meaning: tending to/of the quality of |
| :---: | :---: |
| pre | 'pre', Latin Prefix Meaning: before |
| ject | 'ject', Latin Root, Meaning: throw |
| able | 'able', Latin Suffix, Meaning: capable of or worthy of |
| bi | 'bi', Latin Prefix Meaning: two |
| duct | 'duct', Latin/Greek Root, Meaning: lead, convey |



| im | 'im' Latin Prefix, Meaning: not |
| :---: | :---: |
| Or | 'or', Latin Suffix, Meaning: one who |
| ViS | 'vis', Latin Root, Meaning: see |
| flect | 'flect', Latin Root, Meaning: curve, bend |
| ile | 'ile', Latin Suffix Meaning: ability to, belonging to |
| mobile | 'mobile', Latin Root, Meaning: moving |


| numer | 'numer', Latin Root, Meaning: number |
| :---: | :---: |
| in | 'in', Latin Prefix, Meaning: not |
| fer | 'fer', Latin Root, Meaning: bear, carry |
| flec | 'flect', Latin Root, Meaning: bend, curve |
| por | 'port', Latin Root, Meaning: bear, carry, entrance |
| er | 'er', Latin Suffix, Meaning: one who |


| ure | ‘ure’, Latin Suffix, Meaning: act or result |
| :---: | :---: |
| de | 'de', Latin Prefix Meaning: away, off |
| re | 're', Latin Prefix, Meaning: again |
| pe | 'ped', Latin Root, Meaning: foot |
| al | 'al', Latin Suffix, Meaning: of, like, related to |

## Greek morphemes

| photo | 'photo' Greek, Meaning: light |
| :---: | :---: |
| gram | 'gram', Greek, Meaning: drawn or written |
| ist | 'ist', Greek, Meaning: an expert in |
| phon | 'phon', Greek, Meaning: sound |
| auto | 'auto', Greek, <br> Meaning: self |
| graph | 'graph', Greek, Meaning: writing |


| chron | ‘chron’ Greek, Meaning: time |
| :---: | :---: |
| tele | 'tele', Greek, Meaning: distant, far |
| cylc | 'cycl', Greek, Meaning: circle, wheel |
| anti | 'anti', Greek, <br> Meaning: opposed to, opposite |
| Kilo | 'kilo', Greek number, Meaning: one thousand |
| ite | 'ite', Greek, Meaning: fossil |


| matic | 'matic' Greek, Meaning: willing |
| :---: | :---: |
| hydro | 'hydro', Greek, Meaning: water |
| meter | 'meter', Greek, <br> Meaning: measure, unit of measure |
| micro | 'micro', Greek, Meaning: little, small |
| astro | 'astro', Greek, Meaning: star |
| poly | 'poly', Greek, Meaning: many |


| therm | 'therm' Greek, Meaning: heat |
| :---: | :---: |
| SCOP | ‘scop', Greek, Meaning: look at, examine |
| cosm | 'cosm', abbreviation of 'cosmo', Greek, Meaning: universe |
| bio | 'bio', Greek, Meaning: life |
| ISm | 'ism', Greek, Meaning: state of being |
| logy | 'logy', Greek, Meaning: study |


| psych | 'psych' Greek, Meaning: mind, spirit, soul |
| :---: | :---: |
| path | 'path', Greek, Meaning: suffer |
| naut | 'naut', Greek, Meaning: sailor |
| geo | 'geo', Greek, Meaning: earth |
| ana | 'ana', Greek, Meaning: back, backward, upward |
| gen | 'gen', Greek, Meaning: born, growing |

$\left.\begin{array}{|c|c|}\hline \text { phil } & \begin{array}{c}\text { 'phil' Greek, } \\ \text { Meaning: love of }\end{array} \\ \hline \text { ic } & \\ \hline \text { y } & \\ \hline \text { (path', Greek, } \\ \text { Meaning: of, relating to }\end{array}\right\}$

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