

Maths



GCSE

Key Vocabulary

Definitions and morphemic analysis



Introduction

This booklet helps support the explicit teaching of GCSE vocabulary. The words have been chosen for their relevance to the subject as well as their morphemic analysis.

Students undoubtedly need to understand subject specific vocabulary for their studies, but knowing the morphemic analysis will also allow students to make connections across the subject, across the curriculum and hand them the ability to find meaning at the point of need.

Each of the Key Vocabulary booklets could be handed to the students for their own study, but below are some possible teaching ideas.

Some teaching ideas:

Display the word without its definition or morphemic analysis.

Ask students – what does it mean and how do you know?

All students discuss the potential meanings.

Display the morphemic analysis.

Explore how understanding the morphemes (prefixes, suffixes and stems) allows them to find the meaning and develop a gist understanding without having to have a full definition.

Explore vocabulary with shared morphemes. Are there common morphemes shared within particular topics? Where else have they encountered vocabulary with those morphemes?

Use new vocabulary in their own writing, both narrative and academic.

If you're interested in exploring the explicit teaching of vocabulary visit enquiries@lexonik.co.uk and ask about Lexonik Vocabulary Plus, a morphemic analysis and explicit vocabulary instruction platform.



Vocabulary

GCSE Maths



adjacent

- next to or adjoining something else

Morphemic analysis

/ ad / to, towards; for; addition, into - Prefix

/ jac / throw; lie - Stem

/ ent / person who, thing that - Suffix



symmetry

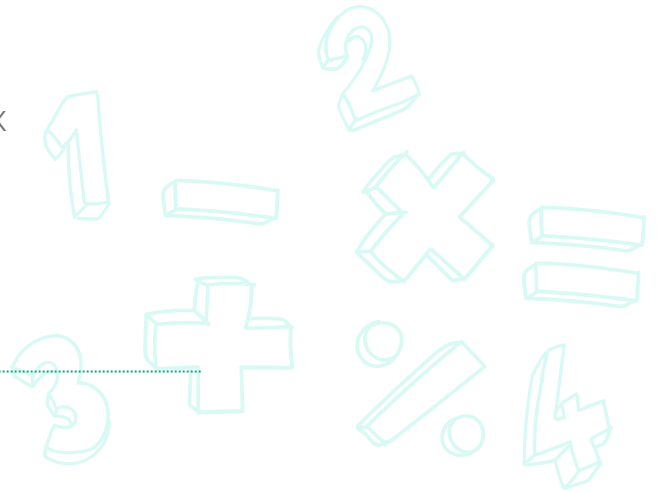
- when one shape is the exact mirror image of another if it is flipped, turned or slid

Morphemic analysis

/ sym / together, with; altogether - Prefix

/ metre / measure - can be 'metr' or 'meter' - Suffix

/ y / like, full of - Suffix



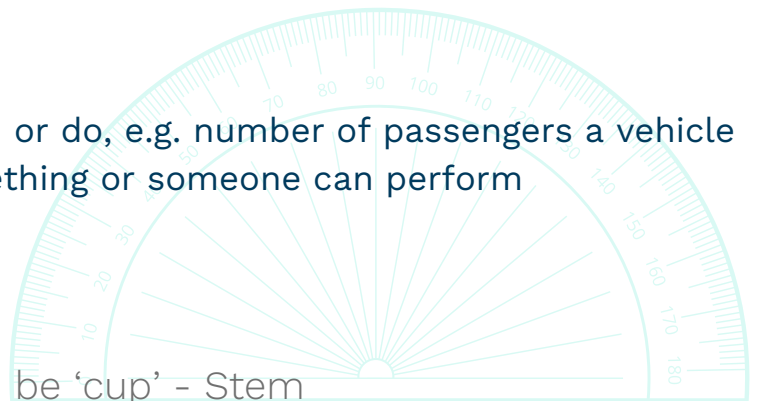
capacity

- the full amount something can hold or do, e.g. number of passengers a vehicle can seat, the best way in which something or someone can perform

Morphemic analysis

/ cap / take, seize, hold; head; can be 'cup' - Stem

/ ity / state, condition, quality - Stem





Key Vocabulary

GCSE Maths

diagram

- a simple line-drawing; illustrating information

Morphemic analysis

/ dia / across, through, apart - Prefix
/ gram / letter, written, drawn - Stem

circumference

- the measurement or line around the outside of a circle or curved shape

Morphemic analysis

/ circ / around - Prefix
/ fer / carry, bring; iron - Stem
/ ence / state, quality; result of an action - Suffix

consecutive

- following one another in uninterupted order, e.g. 5, 6, 7, 8, or 3, 6, 9, 12

Morphemic analysis

/ con / together, with; altogether - Prefix
/ sec / follow - Stem
/ ive / tending to, by nature - Suffix





Key Vocabulary

GCSE Maths

descending

- decreasing in size or importance (going from larger number to smaller number)

Morphemic analysis

/ de / away, down, reverse, not; thoroughly - Prefix

/ cend / climb - Suffix

/ ing / current action; result - Suffix

intersection

- the area of a Venn diagram where two sets overlap

Morphemic analysis

/ inter / among, between - Prefix

/ sect / cut - Stem

/ tion / act, process, result - Suffix

perimeter

- the total distance around the outside of a shape

Morphemic analysis

/ peri / around - Prefix

/ metre / measure - can be 'metr' or 'meter' - Suffix



Key Vocabulary

GCSE Maths



quadrant

- one of the four areas made by the axes in a graph; a quarter of a circle

Morphemic analysis

/ quad / four - Prefix

/ ant / person who, thing that - Suffix

symmetrical

- made up of exactly similar parts facing each other or around an axis

Morphemic analysis

/ sym / together, with - Prefix

/ al / to do with - Suffix

/ metre / measure - can be 'metr' or 'meter' - Suffix

translation

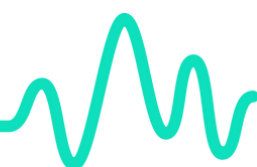
- the act of moving an object up or down or from side to side, but keeping the shape, size and direction

Morphemic analysis

/ trans / across, through - Prefix

/ lat / bear, carry, bring; wide - Stem

/ tion / act, process, result - Suffix





Key Vocabulary

GCSE Maths

rotation

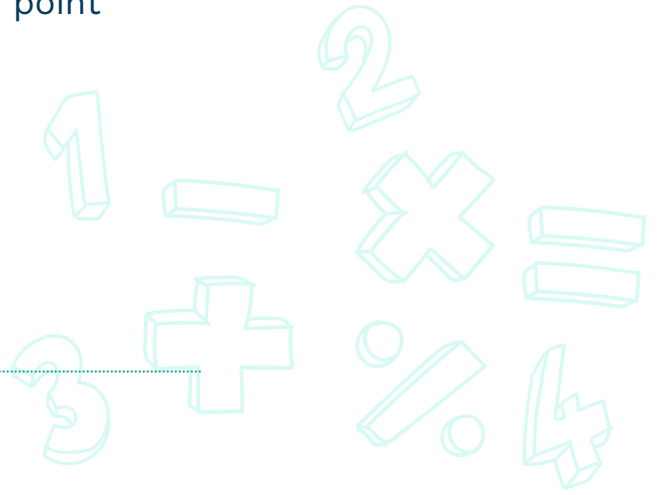
- the process of moving a shape around a fixed point

$$\sin(\theta) = \frac{\text{opp}}{\text{hyp}}$$

Morphemic analysis

/ rota / wheel - Stem

/ tion / act, process, result - Suffix



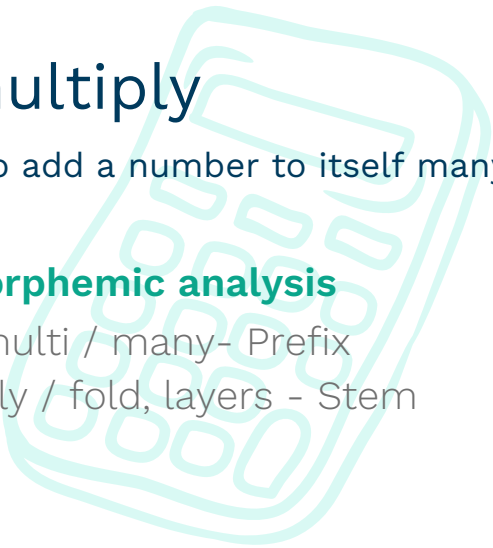
multiply

- to add a number to itself many times

Morphemic analysis

/ multi / many- Prefix

/ ply / fold, layers - Stem



divide

- to find out how many times one number is present in another

Morphemic analysis

/ divid / to separate - Stem

