
Morphemes

Inflectional morphemes

Inflectional morphemes are suffixes which do not change the essential meaning or grammatical category of a word. They do however add grammatical information when added to the following types of base words:

- Nouns – inflectional suffixes are added to form plurals (dog-dogs, baby-babies, roof-rooves) or to show possession (mum-mum's)
- Adjectives – inflectional suffixes are added to make comparisons (big, bigger, biggest)
- Verbs – inflectional suffixes are added to show tense (walk, walked, walking, walks)

Spelling generalisations

There are some common spelling generalisations that are sometimes required when adding inflectional morphemes to base words. These include:

- final consonant doubling (sip-sipping)
- drop final e rule (take-taking)
- change y to i rule (try-tried, baby-babies, happy-happiest)

Suggested learning sequence – inflectional suffixes

An inflected suffix is a bound morpheme added to the end of a base word to assign a number to a word, to indicate possession or tense, or to provide a comparison. Inflected suffixes are easier for students to grasp than derivational suffixes, so are best introduced and explicitly taught first.

Stage	Suffix	Definition	Attaches to	Explicit teaching
ES1	-ed	past tense	verbs	Teach using verbs that require no change to base word: walk-walked.
ES1	-ing	progressive; present participles	verbs	Teach using verbs that require no change to base word: sleep-sleeping.
ES1	-s	plural; more than one	nouns	Teach using nouns that require no change to base word: train-trains, toy-toys.
S1	-ed	past tense	verbs	Teach final consonant doubling, drop the final e rule, change y to i rule: hop-hopped, hope-hoped, cry-cried.
S1	-ing	progressive; present participles	verbs	Teach final consonant doubling, drop the final e rule: hop-hopping, hope-hoping.
S1	-en	past participle	verbs	give-given, eat-eaten
S1	-s, -es	third person singular present tense	verbs	hop-hops Teach 'es' suffix for words ending in ch, sh, ss, or x: push-pushes
S1	-s, -es	plural; more than one	nouns	Teach 'es' plural for words ending in ch, sh, ss, or x: wrenches, wishes, kisses, foxes. Teach 'ies' rule for words ending in y: baby-babies. Teach exception - if base word ends in vowel & y, or ey, just add s: toys, monkeys. Teach 'ves' rule for words ending in f: calf-calves. Teach rule for nouns ending in o - sometimes -s or -es is used: hero-heroes, radio-radios.

Stage	Suffix	Definition	Attaches to	Explicit teaching
S1	's, -s'	possessive	nouns	Kate-Kate's, mother-mothers'
S1	-er	comparative; more	adjectives	First teach using adjectives that require no change to base word: tall-taller. Then teach final consonant doubling, drop the final e rule, change y to i rule: thin-thinner, wide-wider, happy-happier.
S1	-est	superlative; the most	adjectives	First teach using adjectives that require no change to base word: tall-tallest. Then teach final consonant doubling, drop the final e rule, change y to i rule: thin-thinnest, wide-widest, happy-happiest.

Derivational morphemes

Derivational morphemes include both prefixes and suffixes. Derivational prefixes change the meaning of base words and derivational suffixes can change both the meaning and the grammatical category of base words. For example:

- The base word 'teach' (verb) + suffix '-er' makes the word *teacher* (noun). Adding the suffix changes both the meaning (from an action to someone who carries out that action) and the grammatical character of the word (from a verb to a noun).
- The prefix 're-' + base word 'read' (verb) makes the word *reread*. Adding the prefix changes the meaning (from an action to redoing that action) but this time the grammatical characteristic stays the same (it remains a verb).

Spelling generalisations

Knowledge of certain spelling generalisations is necessary when adding suffix morphemes to base words. It is important to note, that for students to apply these spelling generalisations correctly, understandings of syllables, consonant and vowel phoneme-grapheme correspondences, short and long vowel sounds as well as knowledge of the schwa vowel sound are essential. The following spelling generalisations will support student morphological spelling development:

- No change to base words is needed - when a word ends with a consonant and the suffix begins with a consonant (ful, ness), just add the suffix with no spelling changes (event-eventful, kind-kindness).
- Final consonants need to be doubled - when a word ends with a short vowel followed by a single consonant, double the consonant before you add the suffix (**tip**-tipping, win-w**inner**). Exceptions: do not double w, y or y.
- Drop the final e rule - when adding a vowel suffix to words ending with a consonant and a silent e, drop the e (hope-hop**ing**, like-lik**able**). If it is a consonant suffix being added, keep the e (hope-hop**eful**, like-lik**ely**).
- Change the y to i rule - when adding a suffix to words ending in a consonant plus y, change the y to i (happy-happ**iness**, stud**ies**) except if adding a suffix that starts with an 'i' (carry-car**ying**). If the word ends in a vowel followed by y, keep the y (play**er**, say**ing**).
- Double the final consonant of a stressed syllable – when words are stressed on the last syllable and end with a single consonant, double the final consonant (be**GIN**-begin**ner**). However do not double the final consonant if the final syllable is not stressed (LI**St**en-list**ener**), if it ends in two consonants (govern-govern**ment**), there are two vowels directly before (rain-rain**ed**) or the word ends in w or y (snow-snow**ing**, play-play**er**).

Suggested learning sequence – derivational prefixes

Prefixes are derivational morphemes that attach to the front of a base word or root. They change or modify the meaning of the base word or root to create a new word.

The study of prefixes is important for spelling but will also support vocabulary development and reading comprehension.

Stage 1

Origin	Prefix	Definition	Example
Anglo Saxon:	un-	not, opposite of	unusual, unforgiving
	re-	again	reread, revisit
	pre-	before	preview, precaution
	mid-	middle	midday, midway
	mis-	wrongly	mislead, misbehave
	in-, im-	in	inside, implant
Latin:	non-	not	nonliving, nonfiction

Stage 2

Origin	Prefix	Definition	Example
Anglo Saxon:	dis-	not, opposite of	disagree, dissatisfy
	de-	opposite	declutter, demerit
	in- (assimilated prefixes im-, il- and ir-)	not	incomplete Teach il- before words starting with l: illogical/illogical. Teach im- before words starting with p, b and m: im-perfect/imperfect, im-balance/imbalance, im-mobile/immobile. Teach ir- before words starting with r: ir-regular/irregular.
	trans-	across	transform, transport
	anti-	against	anticlimax, antisocial
	sub-	under	subheading, submarine
	super-	above, beyond	superstar, supercharged
	semi-	half, partly, not full	semicircle, semi-final
	under-	under, too little	underwhelmed, underestimate
	over-	over, too much	overflow, overcame
	out-	more or better than	outlast, outgrow
	be-	to make, cause or seem	befriend, belittle
Latin:	bi-	two, twice	bicycle, bifocal
	co-	with	cooperate, co-worker
Greek:	tele-, tel-	at or over a distance	telescope, television
	astro-	outer space, star	astrology, astronaut
	mono-	one, single	monolith, monologue

Stage 3

Origin	Prefix	Definition	Example
Anglo Saxon	en-, em-	cause to	enrage, embed
	fore-	before, front of	foreground, forerunner
	inter-	between, among	interact, interstate
Latin	Ex (assimilated prefixes, ef, e -)	out of	exhale, export
	intra-	inside, within	intranet, intravenous
	mal-	bad, wrongly	malpractice, malfunction
	post-	after	post-war, postgraduate
	pro-	in favour of	proclaim, pro-government,
	com- (assimilated prefixes col-, cor-, co-, con-)	together, with, jointly	combine, compile Teach com- becomes col- and cor- before l and r: col-lateral/collateral, cor-relate/correlate. Teach co- before h and most vowels: co-habit/cohabit, co-operate/cooperate, co-author/co-author. Teach con- before consonants other than b, p, and m: con-form/conform.
	uni-	consisting of, relating to, or having only one	unite, universe
tri-	three	triangle, tripod	
	ad- (assimilated prefixes ac-, af-, as-, al-, at- and ap-)	to, toward	adjoin, advantage Teach ac- before words starting with c: ac-count/account. Teach af- before words/roots starting with f: af-front/affront. Teach as- before words/roots starting with s: as-sign/assign. Teach al- in front of words/roots starting with l: al-locate/allocate. Teach at- in front of words/roots starting with t: at-

Origin	Prefix	Definition	Example
			tend/attend. Teach ap- in front of words/roots starting with p: ap-prove/approve.
Greek	auto-	self, of or by oneself	automobile, autopilot
	micro-	small	microscope, microwave
	epi-	on, upon, above, in addition to, after or near	epidermis; epicentre, epilogue
	bio-	indicating life, living organisms	biography, biology
	chron-	time	chronological, chronic
	dyna-	power	dynamic, dynamite
	dys-	bad, hard, unlucky	dysfunctional, dystopia

Suggested learning sequence – derivational suffixes

A derivational suffix is a bound morpheme added to the end of a base word and changes the grammatical category and/or meaning of the base word.

Stage 1

Origin	Suffix	Definition	Attaches to	Explicit teaching
Anglo Saxon	-y	characterized by	nouns to form adjectives, verbs to form adjectives	Teach adding -y to nouns to form adjectives: hair-hairy. Teach adding -y to verbs to form adjectives: push-pushy. Teach drop the final e rule: spike-spiky, scare-scary. Teach double consonant rule: sun-sunny.
	-ly	how something is; characteristic of	nouns to form adjectives, adjectives to form adverbs	Teach adding -ly to nouns to form adjectives: friend-friendly. Teach adding -ly to adjectives to form adverbs: slow-slowly. Teach the rule for changing the y to i and keeping the e: happy-happily, love-lovely.
	-ful	full of	verbs to form adjectives, nouns to form adjectives	Teach adding -ful to base words makes adjectives: help-helpful. Teach keep the e rule: care-careful, hope-hopeful. Teach if word ends in consonant + y, change to i: plenty-plentiful, beauty-beautiful. Teach if word ends in a vowel + y, just add -ful: joy-joyful, play-playful.
	-ish	having qualities or characteristics of, approximate age	nouns and adjectives to form adjectives	child-childish, fool-foolish, red-reddish, Spain-Spanish, sixty-sixtyish
	-ship	Quality or condition, skill, status	nouns to form nouns	friend-friendship, member-membership, craftsman-craftsmanship, leader-leadership.

Origin	Suffix	Definition	Attaches to	Explicit teaching
Anglo Saxon / Latin	-er, -or	person who does the verb	verbs to form nouns	<p>Teach -er is the most common way to end a word for someone carrying out an action: teach-teacher, speak-speaker.</p> <p>Sometimes the latin suffix -or is used: create-creator, visit-visitor.</p>

Stage 2

Origin	Suffix	Definition	Attaches to	Explicit teaching
Anglo Saxon	-ment	state of being; act of	verbs to make nouns	Teach adding -ment to a verb forms a noun: embarrass-embarrassment. Teach keep the e rule: measure-measurement.
	-less	without	nouns to form adjectives, verbs to form adjectives	Teach adding -less to nouns to form adjectives: child-childless. Teach change the y to i rule: penny-penniless. Teach if word ends in a vowel + y, just add -less: joy-joyless. Teach keep the e rule: hope-hopeless.
	-ness	state of; condition of	adjectives to form nouns	Teach adding -ness to adjectives to form nouns: kind-kindness. Teach change y to i rule: happiness.
	-hood	condition of being	nouns and adjectives to form nouns	Teach adding -hood forms nouns that name a condition or group: childhood, adulthood. Teacher change the y to i rule: likely-likelihood.
	-able, -ible, -ibly, -ably	capable of	verbs to make adjectives	Teach -able is more common and usually attached to complete root words: enjoy-enjoyable. Whereas -ible is generally attached to incomplete root words (bound stem): horr-horrible. Teach drop the final e rule and exceptions: believe-believable, move-movable/moveable).
	-en	to become or cause to be, made of	nouns to form adjectives, adjectives to form verbs	Teach adding -en to nouns to form adjectives: ash-ashen, wood-wooden. Teach adding -en to adjectives to form verbs: dark-darken, wide-widen.
	-ly	how something is; like	adjectives to form adverbs	Teach adding -ly to an adjective forms an adverb: sad-sadly. Teach change the y to i rule: happy-happily. Teach change the -le to -ly rule: gentle-gently.
Latin	-ally	how something is; like	adjectives to form adverbs	Teach if the base word ends in -ic or -al, to add -ally: terrific-

Origin	Suffix	Definition	Attaches to	Explicit teaching
				terrifically, emotional-emotionally.
	-al	having characteristics of; like	verbs to form nouns, nouns to form adjectives	Teach adding –al to verbs forms nouns: dismiss-dismissal. Teach drop the e and change the y to i rules: arrive-arrival, deny-denial. Teach adding –al to nouns to form adjectives: logic-logical. Teach drop the e rule: nature-natural, spine-spinal. Discuss the rule of adding -al after -ic when adding -ly: specific/specifically, horrific/horrifically.
	-al, -ial, -ual	having characteristics of; like	nouns to form adjectives, verbs to form adjectives	Teach adding -al, -ial and -ual to nouns forms adjectives: magic-magical, president-presidential, event-eventual. Teach drop the e rule: nature-natural, race-racial. Teach adding –ual to verbs forms adjectives: act-actual. Teach drop the e rule: use-usual.
	-ous,	having qualities of, full of	nouns to form adjectives	Teach add -ous to nouns to make adjectives: danger-dangerous, mountain-mountainous. Teach drop the e rule: fame-famous. Teach change the y to I rule: vary-various. Teach add -ous to a word that ends with 'our', 'our' becomes 'or', then add -ous: humour-humorous.
	-ess	female	nouns to form female	Teach add –ess to nouns to form female noun: count-countess. Teach double final consonant and drop the final e rule: god-goddess, prince-princess.
Latin	ure, ture	the result of the act	verbs to form nouns	Teach adding -ure or -ture to the end of a verb makes it a noun: sculpt-sculpture, mix-mixture. Teach drop the e rule: close-closure, compose-composure.
	-ion	process, state or result	verbs to form nouns	Teach adding ion to verbs to make nouns: express-expression Teach drop the e rule: decorate-

Origin	Suffix	Definition	Attaches to	Explicit teaching
				decoration, hesitate-hesitation.
Latin/ Greek	-an, -ian, -ean	belonging to or relating to	nouns to form adjectives and nouns, to adjectives to form nouns	Teach adding –an, –ian, and -ean to nouns to form adjectives and nouns: Tibet-Tibetan, Christ-Christian, Europe-European, music-musician, Teach add –ian to adjectives to form nouns: paediatric –paediatrician.
	-ic	having characteristics of	nouns to make adjectives	Teach adding -ic to make adjectives: poet-poetic, cube-cubic, rhythm-rhythmic.
Greek	-ist	a person that performs, makes or produces, operates a person that specialises in a person that follows a certain system of behaviour	verbs and nouns to form nouns or adjectives	Teach adding –ist to verbs and nouns to form nouns and adjectives: final-finalist. Teach drop the e and change the y to i rule: cycle-cyclist, geology-geologist.
	-ism	a belief, condition, behaviour, characteristic	verbs and nouns to form nouns	criticise-criticism, hero-heroism

Stage 3

Origin	Suffix	Definition	Attaches to	Explicit teaching
Latin	-ate	possessing, having the appearance of characteristics (forming adjectives) the product of a process (forming nouns)	nouns to form adjectives, verbs to form nouns, both nouns & adjectives to form verbs.	Teach adding –ate to nouns to form adjectives: fortune-fortunate, affection-affectionate. Teach adding –ate to verbs to form nouns: condense-condensate. Teach adding –ate to nouns and adjectives to form verbs: hyphen-hyphenate, rustic-rusticate.
	-age	result of, state of	verbs to form nouns, nouns to form names of places	Teach adding -age to form nouns from verbs and adjectives: block-blockage, post-postage. Teach double consonant rule: bag-baggage. Teach change the y to i rule: marry-marriage. Teach adding -age to form the names of
	-ity, -ety, -ty	indicating state or condition of being, doing	adjectives to form nouns, bound stems to form nouns	Teach adding -ity and -y to adjectives to form nouns: real-reality, certain-certainty, technical-technicality. Teach adding -ity, -ety and -ty to incomplete root words (bound stems): char-charity, ansi-anxiety, liber-liberty.
	-ive, -ative, -itive	indicating a tendency, inclination or quality (forming adjectives)	nouns and verbs to form adjectives, bound stems to form adjectives, the adjectives formed often become noun	Teach adding –ive to nouns and verbs forms adjectives: mass- that some adjectives formed
	-eous, -ious	having qualities of	nouns to form adjectives	Teach that there is no strict rule for when to use -eous or -ious. Both these suffixes form adjectives. The suffix -ious is more common than –eous: space-spacious, courtesy-courteous. Both suffixes can be pronounced as ‘us’ or as ‘ee-uss’. Teach these adjectives in groups by spelling and pronunciation.

Origin	Suffix	Definition	Attaches to	Explicit teaching
Latin	-ion, -tion, -sion, -ation, -ition, -ssion	act; process	verbs and bound stems to form nouns	Teach add –ion to verbs and bound stems to form nouns: educate-education, discuss-discussion, mot-motion. Teach that –tion is more common than –sion which often follows when a word ends in a -d, -de, -se, -t: decide-decision. There is no strict rule for when to use -ation or –ition: starve-starvation, compete-competition, Teach the suffix ‘-ssion’ follows when a verb ends in ‘mit’: permit-permission.
	-ise	quality, state or function make or become	nouns to form nouns, nouns to form verbs	Expert-expertise Priority-prioritise, hospital-hospitalise.
	-ant, -ent	a person who or a thing that does, a state or quality	verbs to form nouns, verbs to form adjectives	Teach usually add –ant if word ends in e (except ge, ce or ere), ct, lt, our/or: please-pleasant disinfect-disinfectant, consult-consultant, de-odour-deodorant. differ-different, depend-dependent.
	-ence, -ance	an action or process, quality or state, amount or degree	adjectives and verbs to form nouns	Teach add -ence or -ance to form nouns: Important-importance, perform-performance, different-difference, clear-clearance.
	-ery,	occupation, place of work, qualities	to verbs and nouns to form nouns	bake-bakery, trick-trickery
	-ary,	connected with, contributing to, for the purpose of	to verbs and nouns to form nouns and adjectives	document-documentary, compliment-complimentary
	-ory	indicating a place or something having a specific use relating to, characterised by	to verbs to form nouns, to verbs and nouns to form adjectives	observe-observatory, direct-directory compliment-complimentary, sense-sensory

Origin	Suffix	Definition	Attaches to	Explicit teaching
Latin	-ee	a person who is a recipient of an action or in a specified state	to verbs and nouns to form nouns	employ-employee, train-trainee, absent-absentee

Suggested learning sequence – Latin and Greek roots

Root are words or word parts that form new words when prefixes or suffixes are added to them. Understanding the meanings of common roots assists students in reading multisyllabic words and in understanding the meaning of unfamiliar words that are particularly common in academic subjects, including the sciences and mathematics.

Stage 2

Latin Root	Definition	Example
aqua	water	aquarium, aquamarine
aud	to hear	audience, audition
cent	one hundred	century, percent
circum	around	circumference, circumstance
contra/counter	against	contradict, encounter
dec	ten	December, decade
dict	to say	dictation, dictator
fac	to do; to make	factory, manufacture
form	shape	conform, reform
fract	break	fracture, fraction
ject	throw	projection, rejection
multi	many	multimedia, multiple
octo	eight	octagon, octopus
port	to carry	portable, transportation
scrib/script	to write	inscription, prescribe

Latin Root	Definition	Example
sect/sec	to cut	bisect, section
spect	to look	inspection, spectator
struct	to build	destruction, restructure
vid/vis	to see	televise, video

Stage 3

Greek root	Definition	Example
gram	thing written	epigram, telegram
graph	writing	graphic, phonograph
hydr	water	hydration, dehydrate
hyper	over; above; beyond	hyperactive, hyperbole
hypo	below; beneath	hypothermia, hypothetical
logy	study of	biology, psychology
mech	machine	mechanic, mechanism
mega	large	megabyte, megaphone
meter/metr	measure	thermometer, perimeter
para	beside, position	parallel, parachute
phobia	fear	claustrophobia, phobic
phon/phono	sound	phonics, megaphone
photo/phos	light	photograph, phosphorous
pseudo	false	pseudonym, pseudoscience
psycho	soul; spirit	psychology, psychic

Greek root	Definition	Example
scope	viewing instrument	microscope, telescope
techno	art; science; skill	technique, technological
therm	heat	thermal, thermometer