

Appendix

Etymology and morphology

Our resource explores common word parts and explains their etymology while breaking down examples.

Please see section 5C on p44 for more information on classroom usage.

Appendix Contents

Etymology and morphology

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act

(Latin root)

interaction

do, make, drive, behave, function



Etymology

Latin: agere = do

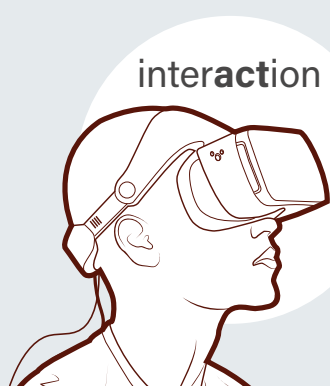
Most common form in English is act, from the past participle 'actus'
Can also take the combining forms ag, as in agitate, and occasionally ig, as in exigent and intransigence

The word 'act' has many meanings in both Latin and English, as it can be made to refer to many different things that 'are done' or 'made', usually with a sense of volition from an 'actor' = anyone who makes an 'action' happen

Examples

- Interaction - mutual influence or effect [inter- + act + -ion = behaviour between]
- Transaction - a business deal or negotiation [trans- + act + -ion = moving / making across]
- Counteract - oppose, neutralise or mitigate [counter- (contra)- + act = taking action against]
- Deformed - misshapen, disfigured, warped [de-+ form = removal of shape]
- Activist - someone who tries to effect change (on the basis of beliefs, such as a protestor) [act + -iv + -ist = person who takes action]

Morphology



inter-	.....	between
act	.....	behave
-(t)ion	.....	noun: process

anti

(Greek prefix)



anticlimactic

against, opposite, contrasting

Etymology

Greek: anti = against, linked to Gk an- = not

Used primarily as a prefix

Can take the form ant- before -a and -o, as in antagonist and antonym.

Anti- can be used to create words describing opposing positions and does not usually require a hyphen, as in anticapitalist, except where it precedes a vowel or proper noun, as in anti-evolutionist or anti-Darwinian.

Anti- can be used geographically as in Antarctic, meaning on the other side of a place.

In medical and scientific usage, anti- often means acting against or reducing the effect, as in antiviral or antioxidant.

Examples

- Antidote - something that stops the effects of a poison [anti- --+ didonai- = give against]
- Antisocial - avoiding contact with others, or behaving against the community's norms [anti- + socius (Lat) = against comrade]
- Antiseptic - (something) acting against microorganisms and associated infections [anti- + sepsis- = against rotting]
- Anticlimactic - describing a disappointing end after an exciting build-up to an event [anti- + klimax = opposite of (top of) ladder]
- Antithesis - the complete opposite, a counterargument [anti- + tithenai = (in the) opposite place]

Morphology



anti-

against

klimax/
climact-

ladder

-ic

adjective

astr

(Greek root)

astronomy

star, space, the heavens

LEO

Etymology

Greek: astron = star

Usually combines as 'astro-'

Also combines as 'aster' from alternative Greek and Latin form

Shares etymology with English 'star' and word for star in many other European languages

Not in: 'astern', 'astride'

Examples

- Astronomy - scientific study of celestial bodies and the universe as a whole
[astro + nom + -y = the law of the stars]
- Astrology - study of the supposed relationship of celestial bodies to human characteristics and activities [astro + log(os) + -y = reason in the stars]
- Astrophysics - study of origin and properties of celestial bodies
[astro + physic + -s + = the nature of the stars]
- Asterisk - star-shaped character (*) used to indicate cross-reference or omission
[asterisk(os) = small star]
- Asteroid - smaller celestial bodies (1-670 km in diameter) mainly orbiting between Mars and Jupiter [astero(e)id(es) = starlike]
- Astronaut - person trained for space travel [astro + naut = star sailor]

Morphology

**astronomy****astro****star****nom(os)****law****-y****noun**

bi

(Latin prefix)

**binoculars**

Two, twice, paired, double

Etymology

Latin: bis = double

Used primarily as a prefix

Related to Greek di-, German zwei, English two- as in twice and twin.

Bi- means either two separate or two related or joined things, as in the difference between binary and bisexual.

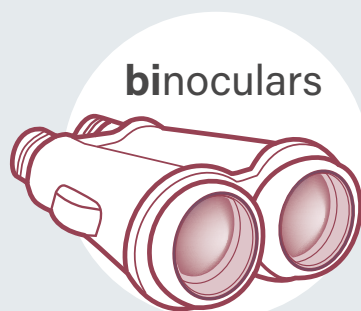
Bin- is sometimes used before a vowel as in binoculars.

Not to be confused with: bio- = life

Examples

- Binary - having two parts or natures that are distinct; base two in Mathematics
[bi(n)+ar = like two things]
- Bisect - to divide in two (equal parts) [bi+sec- = cut in two]
- Bivalve - mollusc with two hinged shells, eg mussel [bi+valv- = two folding doors]
- Bigamy - the practice or crime of being married to two people at once
[bi+gam(Gk) = two marriages]

Morphology



bi(n)-	.....	two
ocul(us)	.....	eye
-ar	.....	like
-s	.....	plural

con

(Latin prefix)

condensation

away, removal, from, down

Etymology

Latin: cum = with

Used primarily as a prefix

Takes different combining forms

Co- before vowels, -gn, and -h (cooperate, cognitive, coherent)

Com- before -b, -p (combine, compose)

Cor- before -r (correct)

Col- before -l (collect)

Con- always have an original meaning of with, but can sometimes mean similar (conform) or completely (consecrate)

Examples

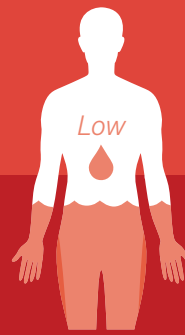
- Compound - something made of more than one element
[com+pon- = place together with]
- Condensation - change in the state of matter from gas to liquid
[con+dens- = become thicker]
- Correlation - a mutual relationship, similarity or connectedness, but not necessarily one of causation [com-+relation- = having a relationship with]

Morphology

**condensation****con-****with****dens(e)****thick****-ation****noun: process**

de

(Latin prefix)

**dehydration**

away, removal, from, down

Etymology

Latin: de = from, away, out of

Used primarily as a prefix

Similar to Latin prefix dis-

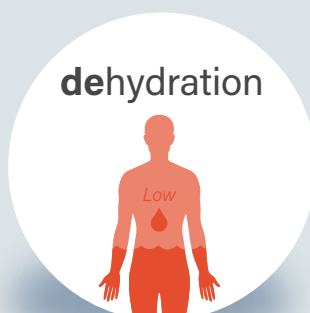
Can also be used as an intensifier as in detest (really hate or bear witness against)

De- usually has a clear meaning as it is commonly combined with Latin roots that have clear independent meanings, or are already prefixed, such as dethrone or decompose

Examples

- Dehydration - process of losing water, drying out [de- + hydr- = removal of water]
- Deforestation - reduction of forest habitats, clearing of trees
[de + forestis- = removal of woodland]
- Dementia - illness characterised by serious mental and emotional deterioration
[de- + mens = out of one's mind]
- Deposit - to put something away carefully [de- + pos- = place away, put down]
- Destruction - making something useless or non-existent
[de- + stru- = the opposite of building]
- Dependent - relying on, or influenced or caused by, something else
[de- + pend- = hanging from]

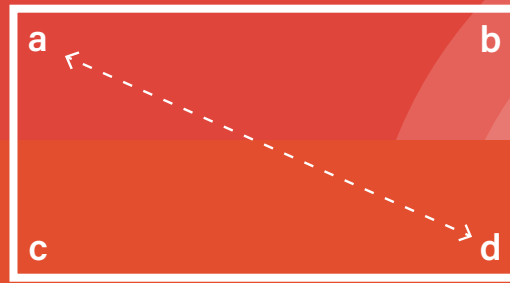
Morphology



de-	.....	removal
hydr(o)	.....	water
-ation	.....	noun: process

dia

(Greek prefix)



diagonal

through, during, across, apart, opposite

Etymology

Greek: dia = through, by

Sometimes combines as 'di-'

Not to be confused with 'di', 'duo' = two - compare 'duologue' and 'dialogue'

Not in: 'dial' from Latin 'dies' = day, or 'diamond'

Examples

- Diagonal - connecting two non-adjacent sides, slanting
[dia- + gon(on) + -al = being across angles]
- Dialect - a form of a language spoken in a specific area or by a specific group [dia- + lect = speaking across / between]
- Diagnosis - determination of illness based on symptoms
[dia- + gnosis + = know thoroughly]
- Diagram - outline, plan, picture demonstrating the workings of something [dia- + gram(ma) = piece of writing / drawing (that gets a meaning) across]
- Diabetes - term for several medical conditions characterised by excessive urination [dia- + betes = passed through]

Morphology



dia-

across

gon(on)

angle

-al

adjective

dic

(Latin root)



prediction

say, tell, speech, call, refer to

Etymology

Latin: dicere = to speak

Also linked to Latin dicare = to make known, both taking basic form 'dico' = I say/ make known
dictare = to order also derives from this root

Etymologically related to English 'teach'

Combining forms include 'dict(a)' (most common), and 'dex'

Not to be confused with: 'di-' = two, 'dia' = through

Examples

- Prediction - statement made in advance, foretelling the future
[pre- + dic + -tion = saying before (an event)]
- Addiction - abnormal dependence on a drug or habit [ad- + dic + -tion = saying (yes) to]
- Contradictory - incompatible, inconsistent, argumentative
[contra- + dict + -ory = saying against]
- Index (pl. indices) - systematic list used for reference; in Mathematics, an exponent
[in- + dex = refer into, point]
- Dictator - an absolute, unrestricted ruler [dicta + -tor = one who commands]
- Benediction - a blessing, or a prayer for God's blessing
[bene + dict + -ion = speaking good (things) to/of]

Morphology

prediction



photo

light

graph

draw

-er

person

dis

(Latin prefix)



disposable

not, opposite, reverse, apart

Etymology

Latin: dis- = apart

Used primarily as a prefix.

Related to Greek dys- = diseased, faulty, unfavourable.

Similar to Latin prefix de-.

Dis- generally indicates something negative, particularly the lack of, or removal of something.

Dif- is used before roots beginning with f, and di- is sometimes used before vowels.

Not to be confused with: di- = two, dia- = through.

Examples

- Disposable - designed for throwing away after use, available for use
[dis + pon-/pos-- place apart, arrange]
- Dissolve - to bring to an end, disperse, cause to go into solution
[dis- + solv- = release or loosen apart]
- Disgusting - awful tasting, foul [dis- + gust- = the opposite of tasty]
- Disarm - to take away someone's weapons, or lay down one's own; to charm
[dis- + arm- = put aside weaponry or defences]

Morphology



disposable

dis-

apart

pos

place

-able

adjective: capable of

endo

(Greek prefix)



endothermic

inner, inside

Etymology

Greek: endo = inner/inside

Used primarily as a prefix

Takes the form end- before vowels

Opposite to (and often contrasted in a pair with) exo-

Almost exclusively used in scientific terms, particularly in Biology and Medicine

Not to be confused with: en- (Lat. Or Fr.) = in

Examples

- Endothermic - occurring or forming with the absorption of heat
[endo- + therm- + -ic = heat within]
- Endorphine - natural polypeptide in the brain that blocks pain
[endo- + (m)orphine = internal painkiller]
- Endoscope - long, slender medical instrument for examining internal organs
[endo- + -scop = look inside]
- Endocardium - membrane that lines the heart's cavities
[endo- + cardium = within the heart]
- Endomorph - mineral that naturally occurs within another mineral, eg quartz
[endo- + -morph = change within]

Morphology



endo-

taking in

therm

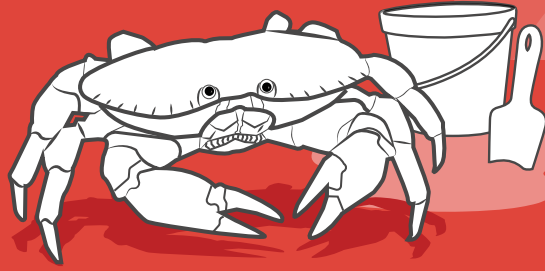
heat

-ic

adjective

exo

(Greek prefix)

**exoskeleton**

Out of, outside, giving out

Etymology

Greek: exo = outside

Used primarily as a prefix

Related to more common Latin prefix ex- = out, away, and Greek prefixes ec- and ecto-

Opposite to (and often contrasted in a pair with) endo-

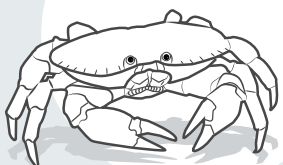
Almost exclusively used in scientific terms, particularly in Biology and Medicine

Not to be confused with: ex- (Lat.) = former, as in ex-Prime Minister

Examples

- Exoskeleton - protective, supportive structure of animals such as arthropods
[exo- + skeletos = outside dried-up (bone)]
- Exothermic - occurring or forming with the production of heat
[exo- + therm- + -ic = heat (going) outside]
- Exogenous - an external factor that influences an organism
[exo- + -gen + -ous = originating outside]
- Exonym - place name given by foreigners, eg 'Londres' for London
[exo- + nym = name from outside]
- Exotic - (like something) that originates from a foreign (and alluring) land
[exo- + tic (suffix forming adjective) = (from) outside]

Morphology

exoskeleton**exo-****outside****skeleto(n)****dried-up***[part of the anatomy in contrast to tissue, blood etc.]*

fac

(Latin prefix)

manufacturing

kind, type, race, birth, produced or produces



Etymology

Latin: *facere* = to make, do, create

Latin conjugation also gives roots *fic*, *fect*, *fact*

Very common root, derivatives include words relating to 'face', and 'fact'

Adjectival combining forms include *-facient*, *-ficient*, *-ficient*

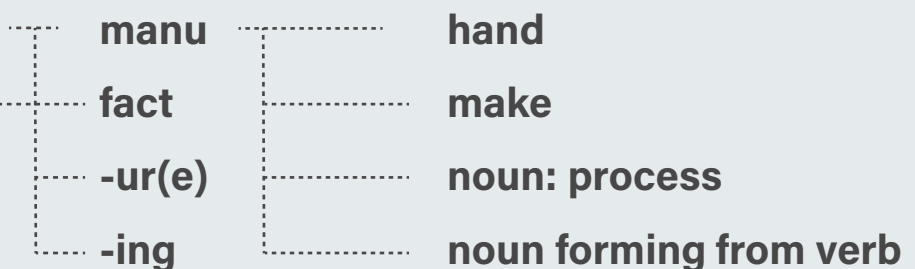
English words can commonly change which form of the root they take in different parts of speech, as in 'artificial' and 'artefact', 'malefactor' and 'maleficence'

Suffix *-fy* indicates making as in 'nullify' or 'putrefy' (compare noun forms 'nullification', 'putrefaction')

Examples

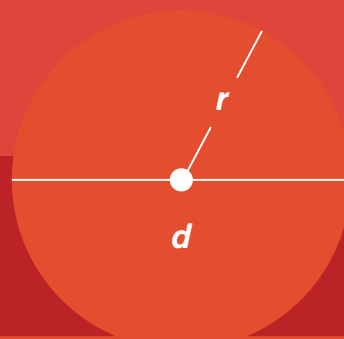
- Manufacturing - making product from raw materials
[manu + fact + -ur(e) + -ing = process of making by hand]
- Factory - building(s) for assembly or manufacture of goods
[fact + or + y = place of making]
- Benefactor - someone who supports or gives to another person or institution
[bene + fact + or = person who does good]
- Artificial - being made or created as opposed to natural
[arte + fic + -ial = made by craft or skill]
- Facilitate - to make easy or easier, provide help to [fac(ilis) + -tate = to make doable]

Morphology



fer

(Latin root)



$$C=2\pi r$$

circumference

carry, bear, bring, move

Etymology

Latin: ferre = to carry, bear

From very irregular Latin verb: past participle 'latus' is root in 'translate' and 'relate', as you can see from the very similar meanings of 'transfer' and refer'

Originally from Greek 'phero', related to English 'bear', as 'v', 'ph', 'b', and 'v' are phonetically similar

Can be used as a suffix '-fer' to denote something that carries or bears something else as in 'conifer' and 'aquifer'

Examples

- Circumference - the boundary of a specific area, particularly a circle
[circum- + fer + -ence = what carries (all the way) round]
- Inference - concluding, deducing from, indicating [in- + fer + -ence = carrying into]
- Unfertilised - not provided with the means to reproduce (sperm, pollen) [un- + fer(t) + -il(e) + -ise + -d = not made capable of bearing (offspring)]
- Defer - delay¹ OR comply with² [de-1 + fer = carry / move (to a) different (time) OR de-2 + fer = carry (oneself) down (in submission)]
- Insufferable - intolerable, extremely irritating
[in- + sub/suf- + fer + -able = not being able to be borne (from below)]
- Interference - intervening, coming between; in Physics, describes specific wave interaction
[inter- + fer + -ence = carrying in between]

Morphology

circumference



circum-

surrounding

fer

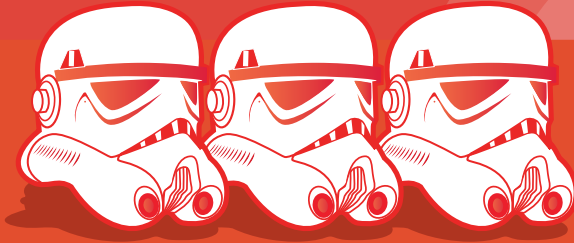
carry

-ence

noun

form

(Latin root)



uniformity

shape, model, type

Etymology

Latin: forma = shape

Combines usually with an -a- from this root, so 'formative', not 'formitive'

Diminutive form formula meaning the small or precise model to be used

The word 'form' itself has diverse meanings including shape, type, document, wellbeing, mode of art, a class, and can also be used as a verb meaning to shape (as in create)

Can be used as combining form -form as in 'cruciform' meaning 'to have the shape of'

Not to be confused with: 'form(ic)' = to do with ants, as in 'formaldehyde',

'formid-' = fear, 'firm(us)' = firm

Examples

- Uniformity - being regular, not diverse; sameness [uni- + form + -ity = being of one shape]
- Transformation - process of change in the shape, qualities (or position in Maths) of something [trans- + forma = change shape]
- Reformation - altering, improving, correcting (as a proper noun, the 16th C changes in western Christianity) [re- + form + -ation = making take shape again]
- Deformed - misshapen, disfigured, warped [de- + form = removal of shape]
- Formal - following certain conventions [form + -al = of a (certain) shape /type]
- Information - knowledge, or the act of giving knowledge [in- + form + -ation = giving shape (in) to, ie describing]

Morphology



uni	.....	one
form	.....	shape
-ity	.....	noun

gen

(Latin &
Greek root)



regenerate

kind, type, race, birth, produced or produces

Etymology

Latin: genus = kind, Greek: -genes = born

Combining forms as prefix include geno-, and as suffix -gene

Other forms derived from linked words 'generare' = to breed, and 'genitivus' = relating to birth

Linked to French 'gens' = people

Not found in: regent, agent, genuflect

Examples

- Regenerate - to give new life or purpose to
[re- + gen(er) + -ate = cause to be born/produced again]
- Genocide - intentional attempt to kill a whole (ethnic) group, eg the Holocaust
[gen(o) + cide = killing of a type]
- Gentleman - a man seen as having qualities of a good family background
[gen(tilis) + man = a man of the family/right type]
- Generalisation - principle or statement applying widely
[gen(er) + -al + -is(e) + -ation = making something apply across a type]
- Pathogen - anything producing disease [patho- + gen = producing suffering]
- Genetics - study of / relating to genes or origins
[gen(esis) + -tic + s = related to reproduction of species / type]

Morphology



regenerate

re-

again

gen(er)

produce

ate

verb

graph

(Greek root)



photographer

write, draw, record, transmit

Etymology

Greek: graphein = to write

Common combining form as a suffix '-graphy', indicating a process of representing or writing, or a science as in 'geography', 'oceanography'.

This gives the idea of an accurate description, as in a 'graphic account'.

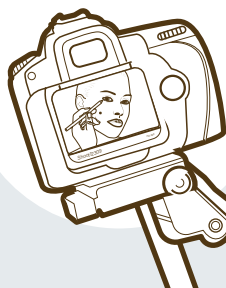
Linked to Greek root 'gram' from 'gramma' = letter, as in 'diagram'.

Examples

- Photographer - someone who creates images using light
[photo- + graph + -er = maker of light drawings]
- Graphite - from of carbon used in pencils [graph + -ite = writing thing]
Choreography - composition of dance steps and sequences
[choreo + graph + -y = writing of dance]
- Telegraph - device for transmitting messages using radio or electrical signals
[tele- + graph = writing at a distance]
- Graphology - study of handwriting (to discern character)
[graph + (o)log(os) + -y = study of writing]
- Chromatography - separating and analysing mixtures by absorption
[chromat(o) + graph + -y = writing (describing accurately) with colours]

Morphology

photographer



photo

light

graph

draw

-er

person

hyper

(Greek prefix)

hyperinflation

above, over, beyond, in excess

Etymology

Greek: hyper = over

Used primarily as a prefix

Avoid hyphenating, as this is a prefix

Opposite to (and often contrasted in a pair with) hypo-

Often used in scientific terms, particularly in Biology and Medicine

Not to be confused with: hypo- = under, below

Examples

- Hyperactivity - unusually active; in medicine has a more precise definition [hyper- + act (Lat.) + -iv(e) + -ity = excess behaviour]
- Hyperbole - deliberate exaggeration for effect (nb pronunciation) [hyper- --+ bole- = thrown excessively]
- Hyperbola - [Mathematics] a specific type of conic section [hyper- --+ bole- = thrown excessively]
- Hypertension - abnormally high blood pressure [hyper- + tens +-ion = excessively stretched] [hyper-- + in- + fla + -tion = excessively blown into]
- Hypertext - text that links to other text, files, or media, as in 'http' in web technology [hyper- + -text = over and above the text (version)]

Morphology

hyperinflation



hyper-

excessive

in-

into

fla

blow

-tion

noun: process



hypo

(Greek prefix)

hypothermia

under, beneath, down, less, deficient

Etymology

Greek: hypo = under

Used primarily as a prefix

Takes form hyp- before a vowel

Opposite to (and often contrasted in a pair with) hyper-

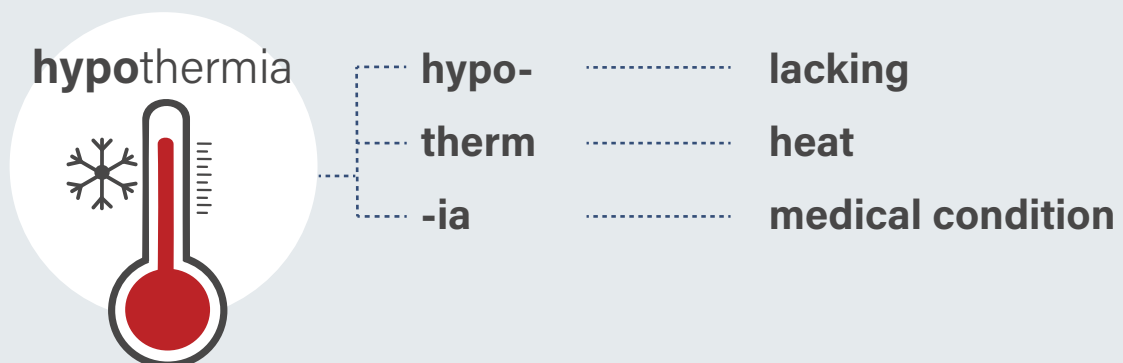
Often used in scientific terms, particularly in Biology and Medicine

Not to be confused with: hyper- = above

Examples

- Hypothermia - abnormally low body temperature [hypo- + therm + -ia = lacking heat]
- Hypothalamus - neural control centre of the brain concerned with hunger etc.
[hypo- + thalamos- = chamber beneath]
- Hypothesis - suggested explanation of a group of facts
[hypo- + thesis- = put under (further investigation)]
- Hypoglycaemia - abnormally low blood-sugar levels
[hypo- + glyc + (h)aemia = lack of blood sugar]
- Hypodermic - injected beneath the skin [hypo- + derm + -ic = beneath the skin]
- Hypochondria - chronic anxiety about health [hypo- + -khondros + -ia = below the abdomen (supposed source of melancholy)]

Morphology



inter

(Latin prefix)

international

between, among, mutually

Etymology

Latin: inter = between

Used primarily as a prefix

Also the origin of French *entre* as in *entrepreneur*

Inter- is often used for indicating joins or links as in *interlocking* and *intersect*

Inter- is often used of mutuality or reciprocity as in *interchange* and *interplay*

Takes form *intel-* in *intelligence* and related words

Not to be confused with: *intra-* = within, inside, and its comparative *interior*. Compare the difference between *intranet* and *internet*, *intradisciplinary* and *interdisciplinary*.

Examples

- International - involving two or more countries
[inter- -+ nat- = between (countries of) birth]
- Interrupt - to stop by doing or saying something, to break continuity
[inter- + ruptus = break between]
- Intermittent - happening at irregular intervals, not continuous
[inter- + mitt- = between sending]
- Intervene - to take a decisive role in events, to occur between points of time
[inter- + venire = to come between]

Morphology



international

inter- **between**

nat(us) **birth**

-(t)ion **noun: process**

-al **adjective**

nation:
country of
birth

intra

(Latin prefix)

intracellular

inside, within, in between

Etymology

Latin: intra = on the inside

Used primarily as a prefix

Comparative form interior used as a noun in English

Often used in scientific terms, particularly in Biology and Medicine

Not to be confused with: inter- = between, among. Compare the difference between intranet and internet, intradisciplinary and interdisciplinary.

Not to be confused with: intro- = towards the inside, in- = into

Examples

- Intracellular - occurring or situated inside a cell or cells
[intra- + cell + -ul(e) + -ar = being within small rooms (cells)]
- Intravenous - within a vein, as in intravenous injection
[intra- + vena- + -ous = inside the vein]
- Intramural - within one institution, school, or university [intra- + mur- + -al = within the walls]
- Intrauterine - within the womb, as in the I.U.D. contraceptive
[intra- + uterus + -ine = inside the womb]
- Intranuclear - situated or occurring within a nucleus [intra- + nux + -ar = within a nut]
- Intracutaneous - within the skin [intra- + -cutis + -aneous = inside the skin]

Morphology



intracellular

intra-

inside

cell

small room

-ul

diminutive form:
very small

-ar

noun: process

lect

(Latin root)



election

choose, pick, read, gather

Etymology

Latin: legere = to pick out, read

Most common form in English is lect, from the past participle 'lectus'

Can also take the combining forms lec, leg, lig

Also related to Greek 'lego' = to say and its derivatives such as 'lex' and 'log'

The meaning of reading may follow from the idea of making out meaning from written language, or choosing what to read out loud

Examples

- Election - choosing, (democratic) process of picking a leader or government
[e(x)- + lect + -ion = choosing out of]
- Recollection - a memory, remembering, recalling
[re- + con/col- + lect + -ion = gathering together again]
- Lecture - discourse on a subject given to an audience [lect + -ure = reading]
- Intelligence - ability to understand [inter-/intel- + legere/lig + -ence = characteristic of discernment, ability to choose / judge]
- Legend - popular story, unverified and maybe exaggerated
[Lat. 'legenda' = passages to be read]
- Selective - choosing carefully, choosing one not another
[se- + lect + -ive = choosing and setting apart]

Morphology



election

e(x)-

out of

lect

choose

-ion

noun:
process

magn

(Latin root)

magnification

great, large, much, strong



Etymology

Latin: magnus = great

Comparative Latin maior = greater gives us the English root 'maj', as in 'majesty'

Superlative Latin maximus = greatest gives us English 'maximum'

Related to Greek root 'mega'

Charlemagne, the Frankish Holy Roman Emperor, is just the French version of 'Charles the Great'

Not in 'magnet' which is from 'ho Magnes lithos' = the stone from Magnesia, a mineral rich region

Examples

- Magnification - increasing in (apparent) size, exaggeration
[magn(i) + fic + -ation = process of making large]
- Magnanimous - generous and noble [magn + anim(a) + -ous = great-souled]
- Magnate - person with vast wealth and power [magn + -ate = one of greatness]
- Magna Carta - agreement signed by King John in 1215 that recognised some rights in England [magna + carta = great charter]
- Magnificent - splendid, impressive, noble [magn(i) + fic + -ent = made great]
- Magnitude - relative importance or size; in Astronomy, the brightness of stars
[magn(i) + -tude = largeness]
- Diabolic - concerning the devil or befitting a devil
[dia- + bol + -ic = like one who slanders (lit. throws across)]

Morphology

magnification

magn(i)

large

fic

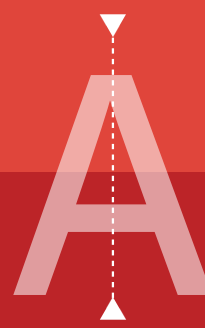
make

-ation

noun: process



metr



(Greek root)

symmetrical

measure, rhythm

Etymology

Greek: metron = measure

'Meter' is the US spelling of 'metre', the measurement of length or description of rhythm in verse or music

'Meter' meaning measuring device is also commonly used as suffix '-meter'

'-metre' as a suffix denotes a multiplier of length as in 'kilometre'

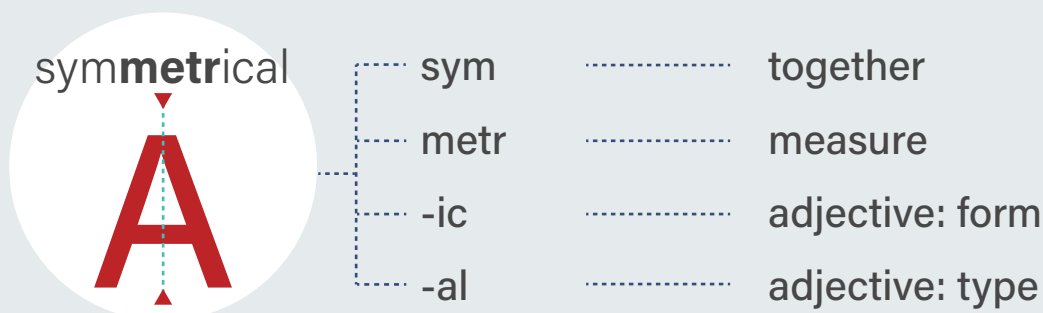
Not to be confused with: 'meta' = change, with

not to be confused with: 'metr' / 'meter' = mother, womb as in 'metropolis'

Examples

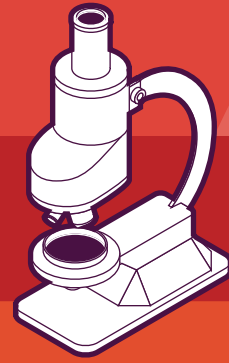
- Symmetrical - possessing correspondence, balance, or similarity
[syn-/sym- + metr + -ic + -al = type that may be measured together / in the same way]
- Barometer - instrument for measuring atmospheric pressure
[baro(s) + -meter = weight measurer]
- Diametrically - utterly, completely, as in 'diametrically opposed to'
[dia- + metr + -ic + -al + -ly = measure apart from]
- Parameter - a limit or constant variable [para + meter = measured alongside]
- Trigonometry - branch of Mathematics concerned with the angles of right-angled triangles and their functions [tri- + gon(on) + (o)metr + -y = the measurement of three angles]

Morphology



micro

(Greek root)



microscope

small, tiny, minute, 1×10^{-6}

Etymology

Greek: micros = small

Usually used as a prefix

The SI derived unit of length can be called a micron or micrometer, with symbol μm ; this prefix can be used with many other SI units eg microsecond

Occasionally combines as 'micr-'

Examples

- Microscope - (optical) instrument producing magnified image of a close object
[micro + scop(ein) = looking at (the) tiny]
- Microorganism - an tiny organism, such as bacterium, virus, protozoan
[micro + organ(on) + -ism = tiny tooled thing]
- Microwave - electromagnetic radiation with very short wavelength
[micro + wave (from Old Norse) + = tiny movement]
- Microphone - device used in electronic sound reproduction
[micro + phon(e) = (detecting a) small sound]
- Microfibre - synthetic fabric made from ultra-fine fibres which can be damaging in waterways and oceans [micro + fibre = tiny entrails]
- Micronutrient - something the body requires in tiny quantities eg vitamins, minerals
[micro + nutri + -ent = tiny foodstuff]

Morphology

microscope



micro

tiny

scop(e)

looking

mono

(Greek prefix)

monolithic

alone, only, sole, single

Etymology

Greek: monos = alone

Combining form can be 'mon-' before vowels as in 'monasticism'.

Usually appears as a prefix.

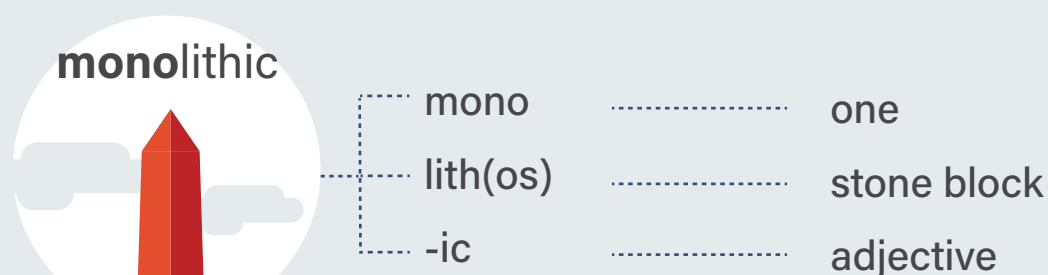
Usually combines with Greek roots, but also used in Latin and therefore in Latin combinations, as in 'monocle'.

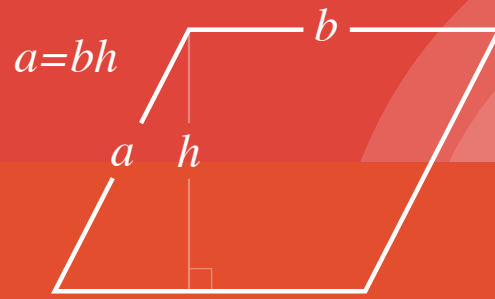
Compare Latin roots 'uni' = one and 'sol' = alone.

Examples

- Monolithic - like a large stone block: huge, intractable, impenetrable
[mono + lith(os) + -ic = like a single (big) stone]
- Carbon monoxide - compound with formula CO, dangerous, odourless gas [carbon + mon + oxide = charcoal combined with only one (atom of) oxygen (producer of sharp (acid))]
- Monotheism - belief in only one God, eg in Islam
[mono + the(os) + -ism = belief in oneness of God]
- Monopoly - exclusive control of a particular market for goods or services
[mono + pol(ein) + -y = single seller]
- Monarchy - system of rule by a single individual, usually a king or queen
[mono + arch + -y = having one ruler]
- Monogram - design of one or more initials e.g. for stationery, jewellery
[mono + gram = single picture/letter]

Morphology





para

(Greek prefix)

parallelogram

beside, near, next to, beyond

Etymology

Greek: para = alongside

Combining form can be 'par-' before vowels as in 'parody'

Can be used as an intensifier, with the meaning 'very' or 'beyond the normal', as in 'paragon'

Not to be confused with several prefixes: 'per', 'pro', 'peri', 'pre'

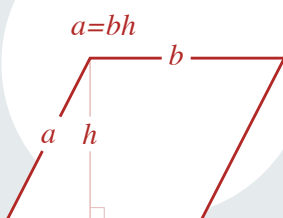
Not to be confused with 'para' from Latin 'parare' = to prepare (against) as in parachute, parasol or = obtain as in 'separate'

Examples

- Parallelogram - quadrilateral with opposite sides are equidistant at every point and equal in length [para- + (a)llo(s) + gram = drawing of (lines) alongside one another]
- Paragraph - section of text that develops a single idea [para- + graph = written alongside]
- Paranoia - mental disorder associated with fear and distrust [para- + noos + -ia = state of being beyond (out of) one's mind]
- Paradox - self-contradictory statement [para- + dox(a) = opinion (contrasted) beside another]
- Parasite - an organism that lives in or on another and gets nourishment from it [para- + sit(os) = next to the grain]
- Paramedic - health worker who supplements the work of eg doctors, often in emergency medicine [para- + medic(us) = alongside a healer]

Morphology

parallelogram



para	.....	together
(a)llole(s)	.....	time
gram	.....	verb

phob

(Greek root)

arachnophobia

fear, panic



Etymology

Greek: Phobos = God of fear

Combines as suffix '-phobia', designating an abnormal fear or aversion

'Phobos' and 'Deimos' are the moons of Mars named after Greek gods of panic and terror

A 'phobia' is used in psychiatry to describe intense and irrational fear

Examples

- Arachnophobia - irrational fear of spiders [arachn(e) + -phobia = spider fear]
- Hydrophobia - another name for rabies (because it makes swallowing painful)
[hydro + -phobia = water fear]
- Homophobe - someone who is prejudiced against members of the LGBT+ community
[homo + phob(e) = fear of (those in) same (-sex relationships)]
- Islamophobia - discrimination against Muslim people, faith, or culture
[Islam(o) + phobia = fear of Islam]
- Xenophobia - hatred or fear of foreigners or their culture
[xeno(s) + phobia = fear of the strange(r)]
- Claustrophobia - abnormal fear of being in confined spaces [claustr(um)
+phobia = fear of the cloister]

Morphology

arachnophobia



arachn(e)

together

-phobia

measure

-ic

adjective: form

-al

adjective: type

photo

(Greek root)

photosynthesis

light

Etymology

Greek: phos / phot- = light

Used primarily as a prefix

Also combines as 'phos'

'Phot.' can be used as an abbreviation for 'photograph' and related words

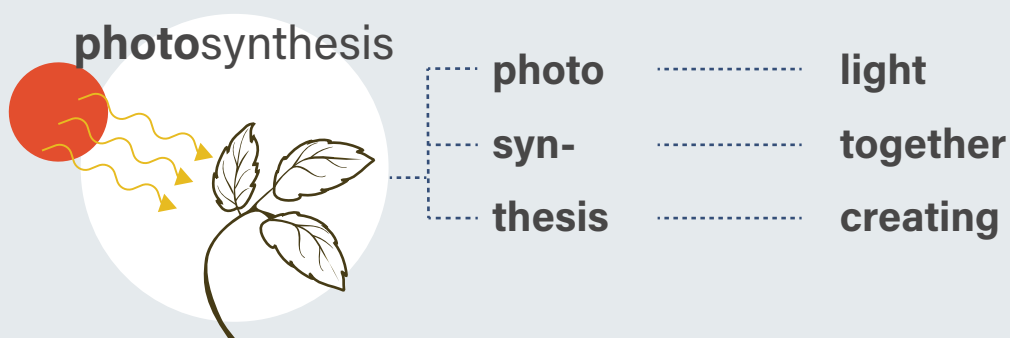
A 'phot' is a unit of illumination

A 'photon' is a quantum of electromagnetic radiation of zero mass, charge, and spin

Examples

- Photosynthesis - process of production of organic compounds from carbon dioxide and water using light energy absorbed by chlorophyll
[photo + syn- + thesis = placing together (creating) from light]
- Telephoto lens - compound camera lens that magnifies due to larger focal length
[tele- + photo + lens = light from a distance + lentil(-shaped glass)]
- Phototropism - growth response of plants towards light stimulus
[photo + trop + -ism = tendency to turn towards light]
- Phosphorus -element occurring in phosphates and living matter that can cause bioluminescence [phos + phor + -us = light bringer]
- Photography - recording images (on sensitised material or digitally) by the action of light or other radiation [photo + graph + -y = making light pictures]

Morphology



poli

(Greek root)



cosmopolitan

city

Etymology

Greek: polis = city

Also combines as 'polis' and 'polit(ic)' from the Greek 'politikos' = of the city or citizens. As the original Greek governments were based on the city-state, meaning now refers to aspects of state government as well.

Found in many city names, eg Naples (Napoli), Annapolis, Sevastopol, Constantinople and Istanbul.

Not to be confused with: 'poly' = many.

Not in: polite, polish.

Examples

- Cosmopolitan - well-travelled, interested in many parts of the world, sophisticated [cosmo + polit + -an = being a world citizen]
- Politics - the government of states and the relationship of those involved [politic + -s = things concerning the city]
- Metropolis - the main city [metro + polis = mother city]
- Police - civil force concerned with law and order [politia (Lat) = administration]
- Acropolis - citadel, fortified part of a city [acro + polis = high city]
- Necropolis - a large cemetery [necro + polis = city of the dead]

Morphology



solv

(Latin root)



insoluble

loosen, answer, melt, release

Etymology

Latin: *solvere* = to loosen

Most common combining form from past participle is 'solu,' as in 'solute'

Can have both positive meanings in the sense of making clear, as in untangling a knot, or negative meanings in the sense of disappearing or breaking down

Not to be confused with: 'sol' = sun, as in 'solar' or 'sol' = alone, as in sole

Examples

- Insoluble - unable to form a solution (complete dispersal), especially in water
[in- + solu + ble = unable to be made loose]
- Absolution - process of forgiveness of sins, release from guilt or punishment
[ab- + solu + -tion = releasing (away) from]
- Resolved - determined, decided firmly, concluded [re- + solv + -ed = loosened (answered problems) again (firmly)]
- Dissolution - breaking up, destruction, dispersal, termination
[dis- + solu + -tion = refer into, point]
- Insolvency - bankrupt, unable to pay debts and liabilities
[in- + solv + -en(t) + -cy = state of being one unable to overcome (loosen) problems]

Morphology

insoluble



in-	.....	not
solu	.....	answer
-ble	.....	adjective: ability

spher

(Greek root)

atmosphere

round, circle, globe, orb, earth

Etymology

Greek: sphaira = globe

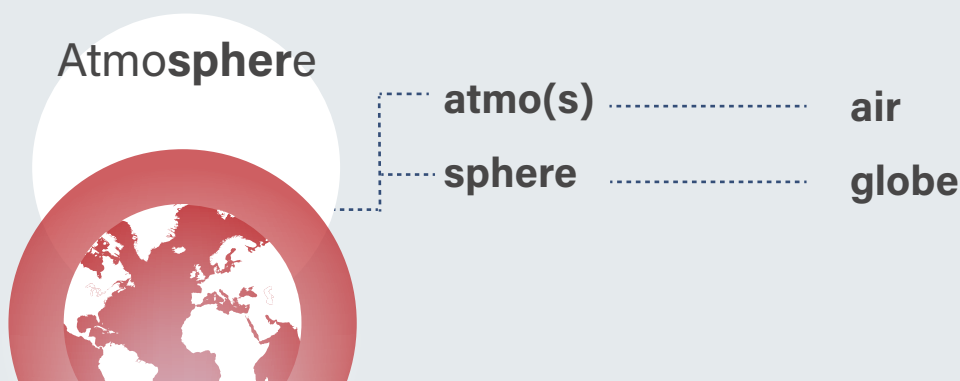
English usage from Lat. 'sphaera'

Often used as combining form '-sphere' after a descriptive root to indicate something that surrounds in this shape, as in 'ionosphere'

Examples

- Atmosphere - gaseous layer surrounding the earth (or other celestial body)
- [atmo(s) + sphere = circle of air]
Hemisphere - half of a sphere, particularly of earth [hemi- + sphere = half circle]
- Spherical - in the shape of, or formed on the surface of, a sphere
[spher + -ical = something that makes sound together]
- Stratospheric - relating to a high layer of the atmosphere, figuratively incredibly high [strat(o) + spher + -ic = concerning an extended circle]
- Rhizosphere - area around the roots of a plant that interacts with it
[rhiz(o) + sphere = around the root]
- Heliosphere - region around the sun affected by its magnetic field
[helio + sphere = around the sun]

Morphology



sta

(Latin root)

instability

stand, place, support



Etymology

Latin: stare = to stand

Similar roots come directly from Greek equivalent statikos = made to stand

Root word, very common

Takes the form stat from the Latin past participle

Takes the form sist from Latin word 'sistere' = stand firm, and 'stit' from Latin 'statuere' = to place

'Stay' and 'stand' are the simplest English derivatives

Examples

- Instability - lack of steadiness, tendency to unpredictable behaviour
[in- + sta + (h)abili(s) + -ty = unable to stand]
- Overstatement - exaggeration or overemphasis
[over- + state + -ment = something put forward (made to stand) too much]
- Thermostat - device for maintaining temperature [therm- + sta(t) = heat stays (the same)]
- Statutory - legally binding, subject to punishment
[sta(tut) + ory = made to stand (as a decree)]
- Establishment - making permanent, setting up, a business that has been set up
[(via Fr. e- + sta + (h)ab(i)l(is) + -ish = ment = process of making to stand]
- Destitution - state of being without the means of subsistence, impoverished
[de- + -stitu (sta) + -tion = state of having had support taken away]

Morphology



instability

in-

not

sta

stand

-(h)abili(s)

able to

-ty

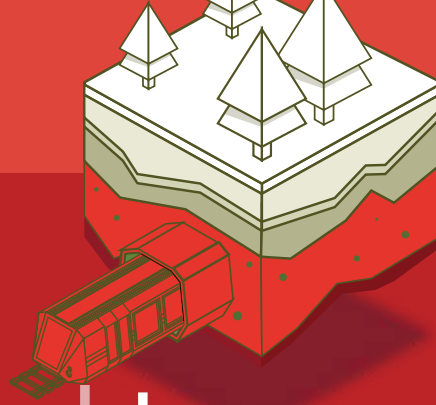
noun

sub

(Latin prefix)

subterranean

under, below



Etymology

Latin: bis = sub = under

Used primarily as a prefix

Sometimes takes different combining forms

Suc- before -c (success)

Suf- before -f (suffer)

Sup- before -p (support)

Su-/sus- in different examples (suspend, suspect, sustain)

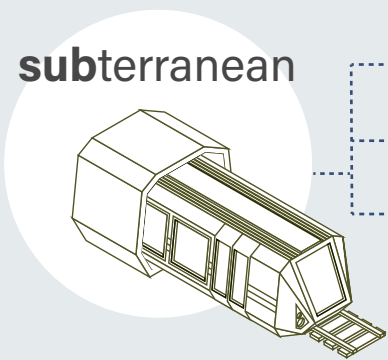
Opposite is super- meaning above, of higher importance

Examples

- Subterranean - living or situated underground [sub- + terra = under earth]
- Subtract - to decrease, take away from [sub- + tract = drag from underneath]
- Subordinate - of lesser importance or lower rank [sub- + ordo = under the rank of]
- Subside - become less active; to sink to a lower level [sub- + sidere = settle down]
- Submarine - a vessel capable of operating below the surface of the water [sub- + mare- = under sea]

Morphology

subterranean



sub-

under

terra

earth

nean

adjective: type

super

(Latin prefix)



superficial

over, above, additional, upper, very

Etymology

Latin: super = above

Used primarily as a prefix

Almost synonymous with supra- (as in supreme and supranational) although super- can mean 'on top of', and supra- can have the meaning 'above and beyond'

Opposite of sub- as in superhuman and subhuman

Supreme is the superlative form, meaning 'the highest'

Examples

- Superficial - existing or occurring at the surface, lacking depth
[super- +-+ facies- +-al = on the upper face (side)]
- Superlative - of outstanding quality or degree; grammar: adjective or adverb at highest degree [super- + latus + -ive = carried to the highest]
- Superfluous - exceeding requirements, unnecessary [super- + fluere--+-ous = flow over]
- Supersede - to take the place of (particularly something obsolete)
[super- + sede = (take) the seat over (from)]
- Supernova - an exploding star at the end of its life that emits radiation
[super- + nova = very new (star)]
- Supervise - to direct, watch over, organise [super- + videre = to oversee/look over]

Morphology



superficial

super-

on the upper

facies /fic

face

-ial

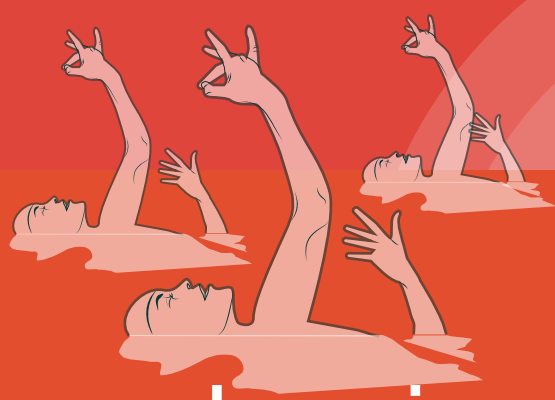
adjective

syn

(Greek root)

synchronise

together, with, same



Etymology

Greek: sun = with

Combining forms:

'sym-' before 'b', 'm', 'p', 'ph'

'syl-' before 'l'

'sy(s)-' before 's', as in 'system'

'u' (upsilon) in Greek often becomes 'y' in English

Examples

- Synchronise - cause to occur at the same time [syn- + chron + -ise = same time]
- Synonym - a word that has the same meaning as another
[syn- + onym (onoma) = same names]
- Symphony - extended, large-scale orchestral piece of music
[sym- + phon + -y = something that makes sound together]
- Sympathy - sharing another's emotion, especially of sorrow
[sym- + path + -y = concerning the rulers]
- Syllable - unit of sound in language [syl- + la(m)b + -le = collect together]
- Synapse - point at which nerve impulse is relayed between neurons
[syn- + apt/aps = connect with]

Morphology



syn-	.....	together
chron	.....	time
-ise	.....	verb

the



(Greek root)

theology

God, gods, religious

Etymology

Greek: theos = god

Usually combines as 'theo-'

Shared etymology with Latin 'deus,' as in 'deity'

Not to be confused with: 'theor' = to view, as in 'theory'

Examples

- Theology - study of the existence and nature of the divine
[theo +log + -y = reasoning about God]
- Atheism - the belief that there is or can be no God or gods
[a- + the + -ism = belief in no God]
- Pantheon - the most honoured people in a group (like the array of Greek gods)
[pan- + the + -on + = place of all gods]
- Polytheistic - characterised by a worship of many gods
[poly + the + -ist + -ic = of those who believe in many gods]
- Theodicy - defence of the idea of God despite the existence of evil
[theo + dic + -y = the justice of God]
- Apotheosis - elevating someone to the status of a god
[apo- + theo + -sis = taken away as a god]

Morphology

theology



theo

God

log(os)

reasoning

-y

noun

therm

(Greek root)

thermometer

heat



Etymology

Greek: therma = hot

Often combines as 'thermo-'

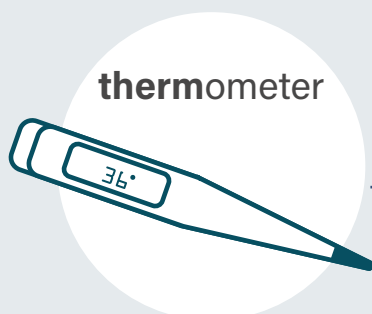
Shared etymology with Latin 'formus,' and English 'warm'

'Therm' is a British unit of heat measurement

Examples

- Thermometer - instrument used to measure temperature
[thermo + meter = heat measurer]
- Geothermal - relating to, or powered by, the heat in the interior of the earth
[geo + therm + -al = of earth's heat]
- Exothermic - (chemical reaction) giving out heat
[exo- + therm + -ic = making heat (go) away]
- Hypothermia - an abnormally low body temperature
[hypo- + the + -on + = condition of lower temperature]
- Thermodynamics - branch of physics concerned with energy conversion [thermo + dynam(is) + -ic + -s = of heat power]
- Thermonuclear - fusion reaction found in the sun, and used in weapons
[thermo + nuclear = core (nuclear) reaction at high temperature]

Morphology



thermometer

therm

heat

metrum (Latin)

measure

trans

(Latin prefix)

transformation

across, beyond, through, change



Etymology

Latin: trans = across, through beyond, on the other side

Used primarily as a prefix.

Alternative combining form tran- before some roots beginning with s-.

Opposite is cis- meaning on the same side.

Occasionally hyphenated with proper names such as Trans-Siberian Railway.

Trans. can be used as an abbreviation for a number of words (eg transport).

Trans on its own is now an accepted shortened form of transgender.

Examples

- Transformation - process of change in the shape, qualities (or position in Maths) of something
[trans- + forma + -ation = change shape]
- Transcendent - beyond the range of normal human experience
[trans- + scand + -ent = climbing beyond]
- Translucent - allowing (some) light to pass through it
[trans- + lux + -ent = light coming through]
- Transport - to carry or move to another location [trans- + port = carry across]
- Transmission passing or sending from one place or person to another
[trans- + miss- + -sion = send over]

Morphology

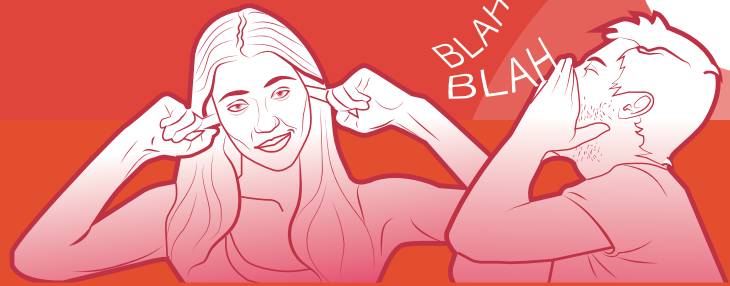
transformation



trans-	.....	change
form(a)	.....	shape
-ation	.....	noun: process

uni

(Latin prefix)



unilateral

one, single

Etymology

Latin: unus = one

Used primarily as a prefix

Used to mean 'having one form or nature only'

Occasionally takes form un- before vowel as in unanimous

Sometimes used in conjunction with other prefixes as in communion and reunification

Not to be confused with: un- = not

Examples

- Universe - all existing matter, energy, and space seen together
[uni- + vers- = turns (as) one]
- Unilateral - one-sided, ignoring another's view [uni- + latus + -al = one side]
- Unity - Oneness, bringing separate parts together
[uni- + -ty (suffix forming nouns indicating state) = oneness]
- Unique - to take the place of (particularly something obsolete)
[Fr. from Lat. unicus = unparalleled]
- Reunion - a bringing back together of a group as one [re- + uni = back (as) one]
- Community - people who live or work together
[con (comm) + uni- + -ty (suffix forming nouns indicating state) = together (as) one]

Morphology



unilateral

uni-

one

latus /
later

side

-al

adjective

vis

(Latin root)



revision

see, look

Etymology

Latin: videre = see

Takes the combining forms vid(e), as in video from the present stem

This can be seen in the difference between 'provide' and 'provision'

Linked to Lat. 'visus' / Fr. 'vis' = face, as in 'visage'

'Divide' and 'division' come from a different root meaning 'separate'

Not to be confused with: 'viv' / 'vit' = life, 'vir' = man, 'vic' = change, 'visc' = sticky

Examples

- Revision - alteration, amendment, rereading (for an exam) [re- + vis + -ion = looking again]
- Providential - according to God's goodness, lucky [pro- + vid + -ent + -ial = describes what has been seen (to) beforehand (by God)]
- Audiovisual - involving both hearing and sight [audio- + vis + -ual = of hearing and sight]
- Supervision - direction, organisation, watching over [super- + vis + -ion = oversight]
- Improvisation - performing or making something quickly without preparation [in-/im- + pro- + vis + -ation = not being seen (to) beforehand]
- Evidence - grounds for belief or proof [e(x)- + vid + ence = see out (from)]

Morphology

