

The 70 Phonograms

a at, navy last	c can cent	d lid	f if	g bag gem	o odd open do	s bus as	qu qu it	b rib	e end me
h him	i sit silent	j jam	k ink	l log	m ham	n win	p map	r rat	t bat
u up, mu sic put	v van	w wet	x box	y yet, ba by, my	z zoo	sh di sh	ee see	th thin this	ow how low
ou round, can to lou pe you, cous	oo boot foo t	ch much, school, ch	ar far	ay day	ai paint	oy boy	oi point	er her	ir first
ur n ur se	wor works	ear e arly	ng ra ng	ea ea t,	aw law	au haunt	or fork	ck neck	wh wh en
ed landed, loved, wrecked	ew grew n ew	ui fruit n ui sance	oa boat	gu gu ess	ph ph one	ough though, through rough, cough thought, drought	oe toe	ey they, key, val ley	igh sigh
kn kn ot	gn gn ome si gn	wr wr ap	ie thief, pie pup pies	dge bri dge	ei recieve, veil, for feit	eigh weigh	ti nation	si session vision	ci facial

Appendix 2

Spelling It Out - How words work and how to teach them
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Common English morphemes

Prefixes	Meaning	Examples
To do with measurement		
bi-	twice	bicycle, biscuit (twice cooked)
di-	two	digraph, dioxide
en/em	intensify	enrage, encourage, empathy (em when followed by p and b)
hemi-	half	hemisphere
hex-	six	hexagon
hyper-	excess	hypertension, hyperactive
hypo-	below/under	hypoallergenic, hypothesis
mega-	big	megaphone, megabyte
micro-	small	microscope, microwave
mono-	one	monopoly, monotreme, monorail
multi-	many	multiply, multimillionaire
octo-	eight	octopus, October
pent-	five	pentagon, pentathlon
quad-	four	quadrangle, quadbike
semi-	half or part	semifinal, semicolon
super-	more than	superman, supernatural
tri-	three	triangle, tricycle, tripod
ultra-	extreme	ultramarathon, ultraviolet
uni-	one, singular	unicycle, unisex, uniform
To do with time		
fore-	before	forehead, foreword
meso-	middle	Mesozoic, Mesopotamia
mid-	middle	midday, midnight
neo-	new	neolithic, neonatal

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Prefixes	Meaning	Examples
paleo-	old	paleolithic, paleozoic
post-	after	postnatal, postmatch
pre-	before	prenatal, pregnant (pre – gnant = birth)
prim-	first	primary, primate
proto-	first	prototype, proton
re-	repeat	review, renovate (nova = new)
To do with negation		
a or an	without/lacking	amoral, apathy, anarchy
anti-	opposite	antiseptic, anticlimax
contra-	against	contrary, contraband
counter-	against	counterclaim, counteract
de-	do the opposite of	decode, defrost
dis-	reverse	disrespect, disagree, dislike, display – disply = unfold
dys-	bad	dysfunctional, dyslexic
ex-	former/out	ex-wife, exclude (to keep out), exclaim (to cry out)
in, im, il, ir (dependent on the first letter of the following morpheme)	opposite – mostly used for multimorphemic words from Latin or French	in – describable in – decisive
im- <i>for m and b</i>		immobile, impossible
il- <i>for l</i>		illegal
ir- <i>for r</i>		irregular
mis-	wrong	mislead, mistake
non-	not	nonsense, nonverbal
pseudo-	fake	pseudonym, pseudoscience
un-	opposite – mostly used for short, single-morpheme base words	unhappy, unlock un-able (single morpheme) but in – ability (two morphemes) abil – ity
To do with location and movement		
a – from Old English	on	afloat, awash
ad-, ac- (dependent on the first letter of the following morpheme, ac for c)	towards	accommodation, advantage

be-	to make	bewitch, belittle
circum-	around	circumference, circumstance
co-, com-, con- depending upon the first letter of the following morpheme	together	cooperate, compete, correlate, collocate, confederate (federate = league), confuse (to fuse together so the parts are indistinguishable)
co for vowels, h and g		
com for p, b, m		
cor for r		
col for l		
con for the rest		
epi-	upon	epicenter, epidermis (dermis = skin)
in-	in	internal, include
infra-	beneath	infrastructure, infrared
inter-	between	intermission, interrupt
intra-	inside	intravenous, introvert
omni-	everywhere	omnipresent, omnipotent
pan-	everywhere, all-encompassing	panoramic, pandemic
para-	alongside	paramedic, parallel
peri-	around	periscope, perimeter
sub	under	submarine, subtitle, subway

Suffixes	Meaning and function	Example
-able/-ible	Having the characteristic of x, likely to be x (x being the base word) Changes verbs or nouns to adjectives 'able' more commonly added to free morphemes 'ible' is more commonly added to bound morphemes	comfort – comfortable agree – agreeable horr-ible – (horr[or]) terr-ible – (terr[or]) in-cred-ible
-acy/-cy	Having the quality of x acy – Changes adjectives ending in ate to abstract nouns cy – changes adjectives ending in ant and ent to nouns	intricate – intricacy accurate – accuracy urgent – urgency pregnant – pregnancy

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Suffixes	Meaning and function	Example
-age	The result of x Changes verbs to nouns	leak – leakage break – breakage
-age	A quantity of x Nouns to nouns	acre – acreage mile – mileage
-al	Having the property of x Changes nouns into adjectives	music – musical magic – magical
-al	The act of x Changes verbs into abstract nouns	survive – survival revive – revival
-an	Of or resembling x Changes nouns to adjectives	Australia – Australian reptile – reptilian
-ance, -ence	The act of x Changes verbs to abstract nouns	appear – appearance relevant – relevance differ – difference reside – residence
-ant, -ent	A person who does x Changes verbs to nouns	participate – participant celebrate – celebrant study – student preside – president
-ary	Is a part of x Nouns to adjectives	moment – momentary second – secondary
-ate	To cause x Verb ending	term (end) – terminate anim (life) – animate
-ate	Full of x Adjective ending Changes nouns into adjectives	passion – passionate fortune – fortunate
-ate	To have the characteristics of x Noun ending	prime – primate carbon – carbonate
-ation	Used with some verbs with no verb suffixes Changes verbs into abstract nouns	inform – information adapt – adaptation

-cation	Used with verbs ending with the verb suffix 'ify' Changes verbs to nouns	purify – purification classify – classification
-dom	State of being x Changes nouns to abstract nouns	wise – wisdom free – freedom
-ed	For adjectives – to be in a state of x Changes verbs to adjectives	interest – interested bore – bored
-ee	The person who participates in x Usually changes verbs into nouns	employ – employee train – trainee
-eer	Person who deals with x Noun to noun	mountain – mountaineer auction – auctioneer
-en	For verbs To become x Changes adjectives to verbs (verbs must be monosyllabic)	dark – darken cheap – cheapen
-en	For adjectives To have the characteristic of x Changes nouns to adjectives when the noun is monosyllabic	wood – wooden ash – ashen
-er	Person who does x Changes verbs into nouns	teach – teacher sing – singer
-ese	Belonging to x Changes nouns to adjectives	China – Chinese legal – legalese
-esque	Having the style of ... Changes nouns into adjectives	statue – statuesque picture – picturesque
-ess	Female name for x Nouns to nouns	lion – lioness prince – princess
-ful	Full of x Changes nouns to adjectives	beauty – beautiful peace – peaceful

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Suffixes	Meaning and function	Example
-hood	State of being x Changes nouns into abstract nouns	child – childhood neighbour – neighborhood
-ic	To have the characteristic of x Changes nouns into adjectives	romance – romantic metal – metallic
-ify	Cause to be x Adjectives into verbs Most often used with adjectives of one syllable and adjectives which end in a vowel sound	pure – purify glory – glorify
-ing	To extend x Changes verbs to nouns	meet – meeting gather – gathering
-ing	To have the characteristic of x Changes verbs to adjectives	bore – boring interest – interesting
-ion	State of x Changes verbs to nouns	act – action direct – direction
-ish	To become like x Changes nouns to adjectives	boy – boyish style – stylish
-ism	A system of beliefs related to x Noun to noun	race – racism age – ageism
-ist	Person connected with x Noun to noun	pyschiatr (healing the soul) – pyschiatrist dent (teeth) – dentist
-ity	To have the quality of x Changes adjectives to nouns	agile – agility fragile – fragility
-ise/-ize; NB: -ise preferred in Australian and British English; -ize preferred in US English	To cause to be x Changes adjectives or nouns to verbs Used with root words with more than one syllable, and which end in r, l, n, m, y	popular – popularise final – finalise victim – victimise memory – memorise

-ive	Characterised by x Changes verbs to adjectives	act – active persuade – persuasive
-less	Without x Changes nouns to adjectives	hope – hopeless fear – fearless
-let	A smaller version of x Noun to noun	pig – piglet drop – droplet
-ling	Related to x – sometimes offspring of x Noun to noun	earth – earthling duck – duckling
-like	Having the characteristic of x Nouns into adjectives (to describe the noun)	child – childlike gentleman – gentlemanlike
-ly	Having the characteristic of x Nouns into adjectives 'ly' began as a contraction of the suffix 'like'.	friend – friendly love – lovely
-ly	Having the characteristic of x Adjectives into adverbs	quick – quickly angry – angrily
-ment	The act of doing x Changes verbs to abstract nouns	settle – settlement achieve – achievement
-ness	To have the condition of x Changes adjectives to abstract nouns	ill – illness happy – happiness
-oid	Having the shape of x Changes nouns to adjectives	andr (man) – Android tab (tablet) – tabloid
-ous	Full of x Changes nouns to adjectives	fame – famous venom – venomous
-proof	Keeps out x Changes nouns to adjectives	bullet – bulletproof water – waterproof
-ry	A broader description of x Nouns into broader nouns (occupations, places, collections)	dentist – dentistry baker – bakery

Suffixes	Meaning and function	Example
-ship	A relationship with x Changes concrete nouns into abstract nouns	friend – friendship partner – partnership
-some	Like/to have the characteristics of x Nouns to nouns	awe – awesome trouble – troublesome
-teen	Ten more than x	six – teen seven – teen
-th	State of x Changes adjectives to nouns	deep – depth strong – strength
-ty (a contraction of 'ten')	x multiplied by ten	six – ty seven – ty
-ty	To have the condition of x Changes adjectives to nouns	royal – royalty novel – novelty
-ward	In the direction of x	home – homeward south – southward
-y	Full of x Changes nouns to adjectives	mist – misty rain – rainy
-y, -ie	Affectionate diminutive of x – usually applied to monosyllabic words A particularly Australian trait is to reduce multisyllabic words to one syllable and then add the 'ie' or 'y'	dog – doggy mum – mummy barbecue – barbie football – footy
-y	In a state of x Adjectives to nouns	jealous – jealousy honest – honesty

Base words	Meaning	Example
andr-	man/humankind	android, philander
anthrop-	human	philanthropy, anthropology
aqua-	water	aquarium, aquatic
arch-	chief/leader	monarchy, archbishop, architect
aster/astro-	star	astronaut, astronomy
atmos-	gas	atmosphere

aud-	hear	audio, audience
auto-	self	autograph, autobiography
bene/bon-	good	benefit, bonus
bio-	life	biology, biography
chron-	time	chronology, chronic, crony
crat-	rule	democrat, autocrat
cred-	believe/trust	credit, incredible
demo-	people	democrat, demographic
dict	speak words	predict, dictionary
dont/dent	teeth	dental, orthodontist
drome	road	aerodrome, dromedary
eco-	home	economics, ecology
fend	ward off	defend, fence
fin	end	finish, definite
-form	shape	transform, uniform
frac-	break	fraction, fracture
geo-	earth	geometry, geology
gno	to know	ignore, recognise
-gon	corner	pentagon, hexagon
grad-	step	grade, graduate, gradual
-graph	write	autograph, telegraph
happ	luck	happenstance, mishap
homo-	same	homophone, homosexual
hon-	worthy	honest, honour
hydr-	water	hydraulic, dehydrate
inter-	between	interview, interrupt
iatr	medical treatment	paediatric, psychiatrist
journ	day	journal, journey
kilo-	thousand	kilometre, kilobyte
lex	word	dyslexia, lexicon
lith-	stone	lithograph, lithosphere
mal-	ill/wrong	malfunction, malady
mar-	sea	marine, submarine

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Base words	Meaning	Example
metre	measure	metric, kilometre
novā	new	novice, renovate
nym, onoma	name	synonym, onomatopoeia
ortho-	correct/straight	orthography, orthodontist
pathy	feeling	sympathy, pathology
-pel	push	repel, expel
phil-	love	philosophy, philanthropy
-phobia	fear	hydrophobia, arachnophobia
-phon	voice/sound	telephone, symphony
phot-	light	photograph, photosynthesis
polis-	city	police, politics
port	carry	porter, transport
psych-	spirit	psychology, psychiatrist
pus/pod	foot	octopus, podiatrist
quest	ask	request, question
-rupt	break	bankrupt, interrupt
-saur	lizard	dinosaur, brontosaurus
spect	view/observe	spectator, inspect
-sphere	round	hemisphere, atmosphere
strat-	layer	stratosphere, strata
techno	craft/skill	technical, architect
tele-	over distance	television, telescope
vis-	seeing	vision, vista
viv-	alive	vivid, revive
-volv	roll	revolve, evolve
zo	life	zoology, Mesozoic

Appendix – spelling rules

This table provides a list of spelling rules that students in primary school need to learn. There are always exceptions to the rule, some of which have been listed.

Rule	Exceptions	Examples		
Short vowel sounds Generally, to spell a short vowel sound, only one letter (vowel) is needed, except for the /e/ sound in <i>bread</i> , <i>lead</i> , <i>tread</i>	<i>said</i>	<i>bed</i> <i>top</i> <i>lip</i> <i>lipstick</i>	<i>bread</i> <i>lead</i> <i>tread</i>	
i before e 'i' before 'e', except after 'c' or when pronounced /ay/ as in <i>weigh</i> or /i/ as in <i>height</i>	<i>weird</i>	<i>thief</i> <i>chief</i> <i>friend</i>	<i>deceive</i> <i>receive</i>	<i>weigh</i> <i>neighbour</i> <i>height</i> <i>either</i>
Dropping Drop the silent 'e' at the end of words if adding a suffix that starts with a vowel (-ing, -ate, -al, -y, -able).	<i>manageable</i> <i>changeable</i>	<i>challenge –</i> <i>challenging</i> <i>fortune – fortunate</i> <i>like – likable</i> <i>have – having</i> <i>shine – shiny</i> <i>change – changing</i>		
Doubling Double the last letter of a base words that end in a short vowel followed by a single consonant, if adding a suffix.		<i>sit – sitting</i> <i>hop – hopping</i> <i>begin – beginning</i> <i>rot – rotting</i>		
Doubling For words that end with a single consonant, that are stressed on the last syllable, double the last letter before adding a suffix.		<i>begin – beginner</i> <i>prefer – preferring</i>		
Doubling In two syllable words that have one middle consonant sound after a vowel sound, double the middle consonant.		<i>rabbit</i> <i>(but not habit)</i>		
Doubling – the FLSZ rule If a single syllable word ends with a short vowel then an 'f' 'l', 'z' or 's', the final consonant will be doubled.		<i>fill</i> <i>pill</i> <i>pass</i> <i>puff</i> <i>fizz</i>		

Doubling Double 'l' when it is preceded by a short vowel, if adding 'ing' and 'ed' In American spelling, the 'l' is not doubled		<i>travel – travelled</i> <i>model – modelled</i>	
Changing Change to 'y' to 'i' when adding a suffix to words that end with a consonant plus 'y', except when adding the suffix '-ing'	<i>dryness</i>	<i>happy – happiness</i> <i>sloppy – sloppiness</i> <i>pity – pitiful</i>	<i>baby – babying</i> <i>empty – emptying</i>
Plurals 's' or 'es' Use 'es' rather than 's' for words ending in ch, sh, ss, x, z Use 'es' for most words ending with 'o'	<i>pianos</i>	<i>rich – riches</i> <i>lash – lashes</i> <i>mass – masses</i> <i>fox – foxes</i> <i>quiz – quizzes</i>	<i>hero – heroes</i> <i>tomato – tomatoes</i>

For a full list of spelling generalisations, rules and tips, go to:
<http://www.oxforddictionaries.com/words/spelling-rules-and-tips>.

Another useful website is:
<http://www.phonicslessons.co.uk/englishspellingrules.html>.