In *Orthograffiti* (WW78217), Richard Lederer showed that a single sound can be demonstrated by many different letters. The sounds which concern us here are the long vowels, specifically the sounds of the 5 major vowels, A, E, I, O and U as they are pronounced in the reading of the alphabet. The sound symbols are those of the Phonetics List of the Oxford English Dictionary, Second Edition. However, I include a further parameter. The long vowel sound must either be preceded, or succeeded, by the short 's' sound. The latter was chosen because it comes in a range of letter combinations. It was not chosen so that plurals could be used. In fact, most s-ending plurals end with the short 's' sound!

Many of the variant forms in the OED may also qualify as examples of the genres below but have not been included because they are not phoneticized individually. Letters which immediately follow the required sound, and which are obviously silent letters, are not included as part of that sound. Thus the -igh of 'sigh' is deemed not to be a variation of the long I sound.

### long 'A' sound followed by short 's' sound

- AC: ace, acyl, face, glacier
- AIS: waist, dais
- AS: asyllabic, basic, casein, wage
- AYC: Jaycee (US coll. - a member of the junior chamber
- EC: prezis (lof commerce)
- EIS: obligeance, brauivilgis (a barbecue), milliris (coin)
- EYS: greystone, gyrser
- UES: rougesite (a sulphide of copper and indium CuInS2)

### short 's' sound followed by long 'A' sound

- CE: acequia (a canal for irrigation), flangée
- SA: sacred, dispensation
- SAI: saint, sailor
- SE: Seder (Passover service), Luigino (a Shoshone Indian people)
- SI: jind (to rinse), Sinaic
- SSA: essay (ette)
- SSEH: medresseh (a Muslim college)
- SZAII: zaibelyite (a hydrous borate of magnesium)

### long 'E' sound followed by short 's' sound

- AEC: accidial, places
- EAC: peace
- EC: ecirze (re. plants - to colonize), pertheicum, etc
- EES: esosome (attractive to the eye), teesoo (Dhak flowers)
- ES: Esau, thegis, obese
- IC: ici, polige
- IES: pieckite (variety pinite), Schoenflies (mathematician)
- IS: isbink, arige, pidge, ambergris, kris
- ISS: pelisse (a fur garment), camis (a Muslim shirt)
- OES: oestrin

### long 'I' sound followed by short 's' sound

- AIC: place
- AIS: bouillabaisse, traiss (trace)
- ASS: bass
- AYS: playjome, Malaysian
- EES: keeshond (a variety of the spitz dog)
- ES: keesa, Keros (a Pueblo Indian people)
- EYSS: Seyssel (the name of 2 villages on the upper Rhône)

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### long 'O' sound followed by short 's' sound

- AES: aestivation, quaestor
- EAS: Easter, yeast, grease, increase
- EEC: fleece, Grece
- EIS: es-sblink, leiseter (a fishing spear)
- EYS: keystone
- IEC: piece
- IIS: isbink (a luminous appearance on the horizon) caused by the reflection of light from ice
- OES: oecist (the founder of an ancient Greek colony), dioecy
- IX: Dix (the lowest trump in Bezique and other card games)
short 's' sound followed by long 'E' sound ..... (si):

C C - the letter C CAE caenozoic, glycemia, muscae (eye floaters)
CE cedar, caoanogthus, ibicen, panagea, circe CEA cease, concea
CEE sectaax, dicaxes, prooced, seducea CEI ceiling, perceive, conceit, caducei
CEY ceylonite (a fernogenous variety of spined from Ceylon) CI cinematheque, glycine
CIE cingling, abig CEI coelenterate, acoelomate
CY cypres (in Law, means 'as near as practicable') CEE muscoce
SAO Saoerstat Eirann (Irish Free State) SAE sephia, ellipses, paradigm, Barossa
SEA season, heartsease, Chelsea See seeeth, anisged, forece
SEI self (old type of eye-wash), caseign, disaione SEE Seymouria (a fossil tetrapod), semsevite (PbSbS2)
SI sith, argime, Fariz SEE siegfried, beastige
SSAE thalassaeigmia, vibrisae SEE Saorstat Eirann (Irish Free State)
SSEE lessgeger, assesse SEE Tannegeen, Ulysses, esse
SCE saigise (parallel beds of rock agreeing in their organic remains) SSEI Cassiegever (cassette recorder/radio)
SI assige (a shrub with yellow flowers) SSIE assigege, cagisie
SY Sylvol (P.L. Sylowl = a Norwegian mathematician) SZE Sze Yap (an area in Guangdong Province in China)
ZEE Yachtge (the 'Yacht' Game)

long 'I' sound followed by short 's' sound ..... (as):

AES maestro AIS (naya) paisa, sais
AISS quiss kitir (means 'Very good!') EIS Lis, Eisteddfod, feisty, reis
EISS Meissen, genes EYES eyescore
EYS gesser IC igse, nige, twice
IIS pruja (old 'price') ISS rij斯塔fel (a South-East Asian rice dish)
IS giotopic, incisger, niji, precise ISS Chrissake
UYSS hyussgenitae (a borate of manganese and iron) YC actinomyetes, glycine
YES dyutter (a cloth dyer) YS shygter, helichrysum (a creeping plant), tryst
YSS Sygul (a sherifflom in Iceland)

short 's' sound followed by long 'I' sound ..... (sa):

CEI seiba (silk-cotton tree of West Indies), pricige CY cipher, precise, fuci
CI (a mineral) CY cycle, ooexte
SAAI saaiddam (land for flood water enclosed by earthen walls) SAE sayeva indignatio (savage indignation)
SAI Saingon, gosain (a Hindu religious mendicant), bonai SAY sayonara, sayiid
SCI seilatica, disipge, ethnoscienc SCY saythe, hyogryamia (a vegetable alkali)
SEI seimic SI siphon, /amase, inside, quasgi
SIE prophesied SSEI gosain (see gosan - SAI)
SSI missile, asisie SSY assthesm (compensation)
SY synovial, forsiyha, prophesys S21 kaluszte (hydrus sulphate of calcium and potassium)
ZIE hintzige (a borate of potassium and magnesium) ZI quartzite (a compact, granular, mainly quartz, rock)

long 'O' sound followed by short 's' sound ..... (sos):

AUSS hauasse (type of breech site for a cannon), Sausseean EAUS Peaucellier cell (named after its inventor Lieut. Peaucellier)
OAS oaste, boast, Milquetoast (an AEIOU word) OC occlus, grogery, logi
OES doeskin, wogsome OHS oh-so, mohseite (oxide of iron and titanium)
OPS ethopsychology OS osmosis, ulgypse (a mineral), thorgat(canine beasts)
OSS osster (sp. of sturgeon), engrossing, disgross OUS goutplovia plant of the Compositae, lilipkoy(alalone)
OWC stowce (a windlass for drawing up ore), Snowcem OWES Lowestoft (in Suffolk, UK)
OWS bowspirit, throwaster (one who twists silk into thread) OZ corozo (a South American tree allied to the palms)
### short ‘s’ sound followed by long ‘O’ sound

| CAO | curacao |
| SAU | Sauteme |
| SEW | senv |
| SOA | soapy |
| SOW | sover |
| SSO | rissole, associate, expresso |
| SSW | curassow (a turkey-like bird) |

### long ‘U’ sound followed by short ‘s’ sound

| EUC | eucyclic (a Botanical term), deuce |
| EWS | Newspeak |
| UIS | nuisance |
| YUS | Yusufzai (a Pathan tribal group inhabiting the N-W Frontier Province of Pakistan) |

### short ‘s’ sound followed by long ‘U’ sound

| CEU | pharmacetic |
| SEU | proseucha (a place of prayer in ancient times) |
| SUU | assume, pari passu (in Law, means ‘equally’) |

### Whole Word makes the sound

The long vowel - short ‘s’ (or vv) sound may be the whole word. Thus the short ‘s’ - long E sound is represented by sea and see, the latter also meaning ‘sea’. The short ‘s’ - long U sound is, similarly, represented by sew and sue, both meaning ‘of a cow: dry of milk’. In both these cases the words are synonymous.

### Homophones

In these non-whole word homophonic examples, the difference in spelling of the words is confined to the long vowel-short ‘s’ (or vv) sound sequence, the other letters remaining the same.

| Long A | place - placing |
| Long E | grease - Greece - grece (see * below), peace - piece |
| Long I | Reisner (German artist in wood) - Reissner (German anatomist) |
| Long O | host - hoist (a cough) |

* there are 14 variants of ‘grece’ (a stairway) in the OED, all of which would seem to have the same pronunciation but, without the phonetic entries, there is always an element of uncertainty.

### Synonyms

It is rare for the long vowel-short ‘s’ sound to be found in homophones which are also synonyms:
Two in One
In each of these words, the same long vowel-short 's (or vy) sound occurs twice. The 2 groups of letters may be anywhere in the word:
(a) The letters concerned are the same
Long I sinu~itis cimic~ine
Long O mesosome
(b) The letters concerned are different
Long E aesth~isia (capacity for feeling and sensation)
Long I metemp~ychozo~e, cyanid~e, cytosine (in DNA)
Long O adipocellul~se, biocoenosis, monophys~osis

Two in One Reversed
In these words, the same long vowel sound appears as both the long vowel - short 's' sound and its reverse, the short 's' - long vowel sound.
(a) The letters concerned are the same
Long E Sin~arqu~ista
Long I isocl~git~e
Long O is~odge
(b) The letters concerned are different
Long E coe~aesth~esis (the vital sense)
Long I cyto~lys~in, polyis~oc~yanat~e
Long O dis~oci~oscope

Shared letters
(a) The long vowel sound is preceded and succeeded by a short 's' sound
Long A Say~sel (the name of 2 villages on the upper Rhone), say~s
Long E dece~ed, sae~ritis
Long I in~isor, sy~ce (an Indian horse groom)
Long O saussuri~e (variety of the mineral zoisite), so~iet~y
Long U dig~e
(b) The short 's' sound is preceded and succeeded by the same long vowel sound
Long A stay~sail
Long E re~ent, the~cae, faeces, m~e~ems, res~ize
Long I di~yan~ide
Long O virt~us~o

Special Words
Words may satisfy more than one of the above categories. Here are 2 examples:
PLEISTOSEIST (pleistoseists are lines enclosing earthquake areas)... the 'ei' in each case is pronounced as a Long I
Two in One - letters the same (pleistoseist).
Two in One Reversed - letters the same (pleistoseist).
Shared letters - Long I sound preceded and succeeded by a short 's' sound (pleistoseist).
DECISIS (stare decisis - in Law; to be bound by precedents)... the 2 letters 'i' are each pronounced as a Long E
Two in One - letters the same (decisis)
Two in One Reversed - letters different (decisis)
Shared letters - Long E sound preceded and succeeded by a short 's' sound (decisis and decisis)
- short 's' sound preceded and succeeded by Long E sound (decisis)