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 varieties of the long I sound.

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

<table>
<thead>
<tr>
<th>Letter(s)</th>
<th>Example Words</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC</td>
<td>ace, ayl, face, glacier</td>
</tr>
<tr>
<td>AIS</td>
<td>waist, dais</td>
</tr>
<tr>
<td>AS</td>
<td>syllabic, basic, casein, wage</td>
</tr>
<tr>
<td>AYC</td>
<td>jacvec (US coll. - a member of the junior chamber)</td>
</tr>
<tr>
<td>EC</td>
<td>précis (of commerce)</td>
</tr>
<tr>
<td>EIS</td>
<td>obligation, braivleigh (a barbecue), millreis (coin)</td>
</tr>
<tr>
<td>EYS</td>
<td>greystone, geyser</td>
</tr>
<tr>
<td>UES</td>
<td>rouquesite (a sulphide of copper and indium CuhnS2)</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Letter(s)</th>
<th>Example Words</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE</td>
<td>�ocqua (a canal for irrigation), fiàngé</td>
</tr>
<tr>
<td>SA</td>
<td>sacred, dispension</td>
</tr>
<tr>
<td>SAI</td>
<td>saint, sailor</td>
</tr>
<tr>
<td>SE</td>
<td>Sáder (Passover service), Luigentó (a Shoebone Indian people)</td>
</tr>
<tr>
<td>SI</td>
<td>sind (to rinse), Sínac</td>
</tr>
<tr>
<td>SSS</td>
<td>essay(ette)</td>
</tr>
<tr>
<td>SSEH</td>
<td>medresseh (a Muslim college)</td>
</tr>
<tr>
<td>SZA1</td>
<td>szaiablyite (a hydrous borate of magnesium)</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Letter(s)</th>
<th>Example Words</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEC</td>
<td>accidial, faces</td>
</tr>
<tr>
<td>EAC</td>
<td>peace</td>
</tr>
<tr>
<td>EC</td>
<td>etcize (re. plants - to colonize), perithecium,</td>
</tr>
<tr>
<td>EES</td>
<td>esoeome (attractive to the eye), teesoo (Dhak flowers)</td>
</tr>
<tr>
<td>ES</td>
<td>Eau, thegeis, obase</td>
</tr>
<tr>
<td>IC</td>
<td>ici, polige</td>
</tr>
<tr>
<td>IES</td>
<td>nieckite (variety pinite), Schoenflies (mathemaitician)</td>
</tr>
<tr>
<td>IS</td>
<td>isbink, artige, pigte, ambergris, kris</td>
</tr>
<tr>
<td>ISS</td>
<td>passeris (a fur garment), camis (a Muslim shirt)</td>
</tr>
<tr>
<td>OES</td>
<td>oestrin</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Letter(s)</th>
<th>Example Words</th>
</tr>
</thead>
<tbody>
<tr>
<td>AES</td>
<td>aestivation, quaestor</td>
</tr>
<tr>
<td>EAS</td>
<td>Easter, yeast, green, increase</td>
</tr>
<tr>
<td>EEC</td>
<td>fleece, Grece</td>
</tr>
<tr>
<td>EIS</td>
<td>es-bink, leister (a fishing spear)</td>
</tr>
<tr>
<td>EYS</td>
<td>keystone</td>
</tr>
<tr>
<td>IEC</td>
<td>piece</td>
</tr>
<tr>
<td>IIS</td>
<td>isbink (a luminous appearance on the horizon)</td>
</tr>
</tbody>
</table>

caused by the reflection of light from ice) |
| OEC | ucist (the founder of an ancient Greek colony), dioocy |
| 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
CE cedar, ceanothus, ibises, panages, circle
CEE ceefax, dices, procecd, seduce
CEY ceylonite (a fernigous variety of spinel from Ceylon)
CIE cicling, abije
CY cypress (in Law, means 'as near as practicable')
SAO Sagarstal Eirann (Irish Free State)
SEA season, heartsease, Chelsea
SEI self (old type of eye-wash), casein, disappear
SI silk, argine, Farq
SAE halayssenia, vibrisse
SEEE ledgeessier, assesses
SSI aissiere (parallel beds of rock agreeing in their organic remains)
SY Sylow (P.J. Sylow = a Norwegian mathematician)
ZEE Yahzzee (the 'Yacht' Game)

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

AES mastrego
AISS quaiss kitir (means 'Very good!')
EISS Meissen, pquiss
EYS gygger
IIS pruia (old 'price')
IS ghotop, incisgor, nigi, precise
UYSS huissogenite (a borate of manganer and iron)
YES dysster (a cloth dyer)
YSS Syggel (a sherifffdom in Iceland)

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

CEI seiba (silk-cotton tree of West Indies), pricisge
\(a \text{ mineral}\)
SAAI saadidam (land for flood water enclosed by earthen walls)
SAI Saigon, gosain (a Hindu religious mendicant), bonai
SCI sciatica, dicsisge, ethnoscience
SEI semantic
SIE prophesied
SSI missile, assise
SY synovial, forsythia, prophesy
ZEI hintzite (a borate of potassium and magnesium)

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

AUSS hause (type of breech site for a cannon), Sausseran
OAS oast, boast, Milquetoast (an AEIOU word)
OES doeskin, wosome
OPS ethnopsychology
OSS osseter (sp. of sturgeon), engrossing, disregress
OWC strawce (a windlass for drawing up ore), Snowgem
OWS boxsprit, throxeer (one who twists silk into thread)

CAE caenozoic, glycemia, muscag (eye floaters)
CEA cease, conceal
CEI ceiling, perceive, conceit, caducei
CI cinematheque, glycine
COE coelenterate, acelomate
SAL mucegge
SE epiga, lilippge, paradigmge, Barorge
SEE geethe, anised, forege
SEY Seymouria (a fossil tetrapod), sengyvite (PbSbS\(_2\))
SIE stegfried, beisege
SEE Tenanggeen, Ulysses, esse
SSSE Cagegiger (cassette recorder/radio)
SSSE jassgege, caisie (a shrub with yellow flowers)
SZE Sze Yap (an area in Guangdong Province in China)

AIS (naya) paina, sais
EIS Eis, Elsteddlo, feasty, reis
eycore
IC ige, nige, twice
IJS rijstafel (a South-East Asian rice dish)
ISS Chissake
YC actinomycetes, glycine
YS shtyer, helichrysum (a creeping plant), tryst

CI cipheer, presciee, fuci
cycle, oogete
CY sgeva indingnaio (savage indigination)
gavonara, sayyid
SCY scthe, hyrogynaima (a vegetable alkali)
siphon, Siamese, inside, quai
gosain (see gosain – SAI)
SSEI assyment (compensation)
SZI kaluszjte (hydrosulphate of calcium and potassium)
ZI quartzite (a compact, granular, mainly quartz, rock)

EAUC Peaucellier cell (named after its inventor Lieut. Peucellier)
OC ocellus, grocery, logi
OHS gh-so, mohsste (oxide of iron and titanium)
OS osmosis, ulvgpinnelaminelaln pineal thotcaneine)
OUS goutbloma plant of the Composite), cipkous(oblanoe)
OWES Lowestoft (in Suffolk, UK)
OZ corozo (a South American tree allied to the palms)
short 's' sound followed by long 'O' sound....(sao)

CAO  curacao
SAU  Sainte
SEW  sewn
SOA  soapy
SOW  soapy
SSO  rissole, associate, expresso
SSOW  curassow (a turkey-like bird)

CEO  once-over
SCEAU  Seineux (a town near Paris)
SO  Soviet, sole, disobey, torso
SOU  soul
SSEAU  Rousseau, trousseau
SSOH  Mendelssohn

ZO  Zoque (a group of Central-American Indian languages), tartarose, Tzotzil (a member of an Indian people in parts of S. Mexico), scherzo

long 'U' sound followed by short 's' sound....(ju:s)

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

EUS  Euston, eustacy (a uniform change of sea level worldwide).
UC  muse, manuscript, meatus (a natural channel or tubular passage)

SOU  soul

VSO  sower, sewer, seus (a bucket-like wine cooler)

Whole Word makes the sound

The short 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.

Homophonic examples, in which the meaning of the words is different, can also be found:

Long A  say - sey (a fish)
Long E  C (the third letter of the Roman alphabet) - see
Long O  sew - so - soh - sow - seu (a bucket-like wine cooler)

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 - place
Long E  grease - Greece - grece (see * below), peace - piece
Long I  Reisner (German artist in wood) - Reissner (German anatomist)
Long O  host - host (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:

Long I  rais = rais (the captain of a boat or vessel)
Two in One

In each of these words, the same long vowel- short 's (or vv)' sound occurs twice. The 2 groups of letters may be anywhere in the word:

(a) The letters concerned are the same
Long I sinusitis cimicine
Long O mesosome

(b) The letters concerned are different
Long E aesthesia (capacity for feeling and sensation)
Long I metempsychosize, cysnice, cytosine (in DNA)
Long O adipocellulase, biocoenosis, monophysogis

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 Sinarquista
Long I isoclastite
Long O isodose

(b) The letters concerned are different
Long E coenaesthesis (the vital sense)
Long I cytolysin, polyisocyanate
Long O dissocioscope

Shared letters

(a) The long vowel sound is preceded and succeeded by a short 's' sound
Long A Sayssel (the name of 2 villages on the upper Rhône), saysial
Long E deceased, septicite
Long I incisor, syce (an Indian horse groom)
Long O saussurite (variety of the mineral zoisite), soctey
Long U disuse

(b) The short 's' sound is preceded and succeeded by the same long vowel sound
Long A staysail
Long E reseat, theca, faeces, mesoems, resice
Long I dicyanide
Long O virtuoso

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 the same (decisis)
Two in One - letters different (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)