

The following are excerpted from the education page of the National Soil Survey Center's education page:
http://www.statlab.iastate.edu/soils/nssc/educ/soil_frm.htm

Formative Elements in Names of Soil Orders

| <u>Soil Order</u> | <u>Formative Terms</u> | <u>Pronunciation</u> |
|--------------------|---------------------------|----------------------|
| <u>Alfisols</u> | Alf, meaningless syllable | <u>Pedalfer</u> |
| <u>Andisols</u> | Modified from ando | <u>Ando</u> |
| <u>Aridisols</u> | Latin, aridies, dry | <u>Arid</u> |
| <u>Entisols</u> | Ent, meaningless | <u>Recent</u> |
| <u>Gelisols</u> | Latin gelare, to freeze | <u>Jell</u> |
| <u>Histosols</u> | Greek, histos, tissue | <u>Histology</u> |
| <u>Inceptisols</u> | Latin, incepum, beginning | <u>Inception</u> |
| <u>Mollisols</u> | Latin, mollis, soft | <u>Mollify</u> |
| <u>Oxisols</u> | French oxide | <u>Oxide</u> |
| <u>Spodosols</u> | Greek spodos, wood ash | <u>Odd</u> |
| <u>Ultisols</u> | Latin ultimus, last | <u>Ultimate</u> |
| <u>Vertisols</u> | Latin verto, turn | <u>Invert</u> |

Formative Elements in Names of Soil Suborders

| <u>Formative Element</u> | <u>Derivation</u> | <u>Sounds Like</u> | <u>Connotation</u> |
|--------------------------|--|---------------------|-------------------------------------|
| Alb | L. <i>albus</i> , white | <u>Albino</u> | Presence of albic horizon |
| Anthr | Modified from Gr. anthropes, human | <u>Anthropology</u> | Modified by humans |
| Aqu | L. <i>aqua</i> , water | <u>Aquifer</u> | Aquic conditions |
| Ar | L. <i>Arare</i> , to plow | <u>Arable</u> | Mixed horizons |
| Arg | Modified from argillic horizon; L. <i>argilla</i> , white clay | <u>Argillite</u> | Presence of argillic horizon |
| Calc | L. calcis, lime | <u>Calcium</u> | Presence of a calcic horizons |
| Camb | L. cambiare, to exchange | Am | Presence of a cambic horizon |
| Cry | G. kryos, icy cold | Cry | Cold |
| Dur | L. durus, hard | <u>Durable</u> | Presence of a duripan |
| Fibr | L. <i>fibra</i> , fiber | <u>Fibrous</u> | Least decomposed stage |
| Fluv | L. <i>fluvius</i> , river | <u>Fluvial</u> | Flood plain |
| Fol | L. <i>folia</i> , leaf | <u>Foliage</u> | Mass of leaves |
| Gyps | L. gypsum, gypsum | <u>Gypsum</u> | Presence of a gypsic horizon |
| Hem | Gr <i>hemi</i> , half | <u>Hemisphere</u> | Intermediate stage of decomposition |
| Hist | Gr. histos, tissue | <u>Histology</u> | Presence of organic materials |
| Hum | L. <i>humus</i> , earth | <u>Humus</u> | Presence of organic matter |
| Orth | Gr. <i>orthos</i> , true | <u>Orthodox</u> | The common ones |
| Per | L. Per, throughout in time | <u>Perennial</u> | Perudic moisture regime |
| Psamm | Gr. <i>psammos</i> , sand | Sam | Sandy texture |
| Rend | Modified from Rendzina | End | High carbonate content |
| Sal | L. base of sal, salt | <u>Saline</u> | Presence of a salic horizon |
| Sapr | Gr. <i>sapros</i> , rotten | Sap | Most decomposed stage |
| Torr | L. <i>torridus</i> , hot and dry | Or | Torric moisture regime |
| Turb | L. Turbidis, disturbed | <u>Turbulent</u> | Presence of cryoturbation |
| Ud | L. <i>udus</i> , Humid | You | Udic moisture regime |
| Vitr | L. vitrum, glass | It | Presence of glass |
| Ust | L. <i>ustus</i> , burnt | <u>Combustion</u> | Ustic moisture regime |
| Xer | Gr. <i>xeros</i> , dry | Zero | Xeric moisture regime |

Formative Elements in Names of Soil Great Groups

| <u>Formative Element</u> | <u>Derivation</u> | <u>Sounds Like</u> | <u>Connotation</u> |
|--------------------------|--|---------------------|---|
| Acr | Modified from Gr. <i>Akros</i> , at the end | <u>Act</u> | Extreme weathering |
| Al | Modified from aluminum | <u>Algebra</u> | High aluminum, low iron |
| Alb | L. <i>Albus</i> , white | <u>Albino</u> | An albic horizon |
| Anhy | Gr. <i>anydros</i> , waterless | <u>Anhydrous</u> | Very dry |
| Anthr | Modified from Gr. <i>anthropos</i> , human | <u>Anthropology</u> | An anthropic epipedon |
| Aqu | L. <i>aqua</i> , water | <u>Aquifer</u> | Aquic conditions |
| Argi | Modified from argillic horizon; L. <i>argilla</i> , white clay | <u>Argillite</u> | Presence of an argillic horizon |
| Calci, calc | L. <i>calcis</i> , lime | <u>Calcium</u> | A calcic horizon |
| Cry | Gr. <i>kryos</i> , icy cold | Cry | Cold |
| Dur | L. <i>durus</i> , hard | <u>Durable</u> | A duripan |
| Dystr, dys | Modified from Gr. <i>dys</i> , ill; dystrophic infertile | <u>Distant</u> | Low base saturation |
| Endo | Gr. <i>endon</i> , <i>endo</i> , within | <u>Endothermic</u> | Implying a ground water table |
| Epi | Gr. <i>epi</i> , on, above | <u>Epidermis</u> | Implying a perched water table |
| Eutr | Modified from Gr. <i>eu</i> , good; eutrophic, fertile | You | High base saturation |
| Ferr | L. <i>ferrum</i> , iron | Fair | Presence of iron |
| Fibr | L. <i>fibra</i> , fiber | <u>Fibrous</u> | Least decomposed stage |
| Fluv | L. <i>fluvius</i> , river | <u>Fluvial</u> | Flood plain |
| Fol | L. <i>folia</i> , leaf | <u>Foliage</u> | Mass of leaves |
| Fragi | Modified from L. <i>fragilis</i> , brittle | <u>Fragile</u> | Presence of fragipan |
| Fragloss | Compound of fra (g) and gloss | | See the formative elements "frag" and "gloss" |
| Fulv | L. <i>fulvus</i> , dull brownish yellow | Full | Dark brown color, presence of organic carbon |
| Glac | L. <i>glacialis</i> , icy | <u>Glacier</u> | Ice lenses or wedges |
| Gyps | L. <i>gypsum</i> , gypsum | <u>Gypsum</u> | Presence of gypsic horizon |
| Gloss | Gr. <i>glossa</i> , tongue | <u>Glossary</u> | Presence of a glossic horizon |
| Hal | Gr. <i>hals</i> , salt | <u>Halibut</u> | Salty |
| Hapl | Gr. <i>haplous</i> , simple | <u>Haploid</u> | Minimum horizon development |

| | | | |
|-----------|---|---------------------|--|
| Hem | G. <i>hemi</i> , half | <u>Hemisphere</u> | Intermediate stage of decomposition |
| Hist | Gr. <i>histos</i> , tissue | <u>History</u> | Presence of organic materials |
| Hum | L. <i>humus</i> , earth | <u>Humus</u> | Presence of organic matter |
| Hydr | Gr. <i>hydo</i> , water | <u>Hydrophobia</u> | Presence of water |
| Kand, kan | Modified from kandite | Can | 1:1 layer silicate clays |
| Luv | Gr. <i>louo</i> , to wash | Ablution | Illuvial |
| Melan | Gr. <i>melasanos</i> , black | Me + Land | Black, presence of organic carbon |
| Moll | L. <i>mollis</i> , soft | <u>Mollusk</u> | Presence of a mollic epipedon |
| Natr | Modified from <i>natrium</i> , sodium | Date | Presence of natric horizon |
| Pale | Gr. <i>paleos</i> , old | <u>Paleontology</u> | Excessive development |
| Petr | Gr. comb. form of <i>petra</i> , rock | <u>Petrified</u> | A cemented horizon |
| Plac | Gr. base of <i>plax</i> , flat stone | <u>Placard</u> | Presence of thin pan |
| Plagg | Modified from Ger. <i>plaggen</i> , sod | Awe | Presence of plaggen epipedon |
| Plinth | Gr. <i>plinthos</i> , brick | In | Presence of plinthite |
| Psamm | Gr. <i>psammos</i> , sand | Sam | Sandy texture |
| Quartz | Ger. <i>quarz</i> , quartz | Quarter | High quartz content |
| Rhod | Gr. base of <i>rhodon</i> , rose | <u>Rhododendron</u> | Dark red color |
| Sal | L. base of <i>sal</i> , salt | <u>Saline</u> | Presence of salic horizon |
| Sapr | Gr. <i>saprose</i> , rotten | Sap | Most decomposed stage |
| Somb | F. <i>sombre</i> , dark | <u>Somber</u> | Presence of sombric horizon |
| Sphagn | Gr. <i>sphagnos</i> , bog | <u>Sphagnum</u> | Presence of Sphagnum |
| Sulf | L. <i>sulfur</i> , sulfur | <u>Sulfur</u> | Presence of sulfides or their oxidation products |
| Torr | L. <i>torridus</i> , hot and dry | <u>Torrid</u> | Torric moisture regime |
| Ud | L. <i>udus</i> , humid | You | Udic moisture regime |
| Umbr | L. <i>umbra</i> , shade | <u>Umbrella</u> | Presence of umbric epipedon |
| Ust | L. <i>ustus</i> , burnt | <u>Combustion</u> | Ustic moisture regime |
| Verm | L. base of <i>vermes</i> , worm | <u>Vermilion</u> | Wormy, or mixed by animals |
| Vitr | L. <i>vitrum</i> , glass | It | Presence of glass |
| Xer | Gr. <i>xeros</i> , dry | Zero | Xeric moisture regime |