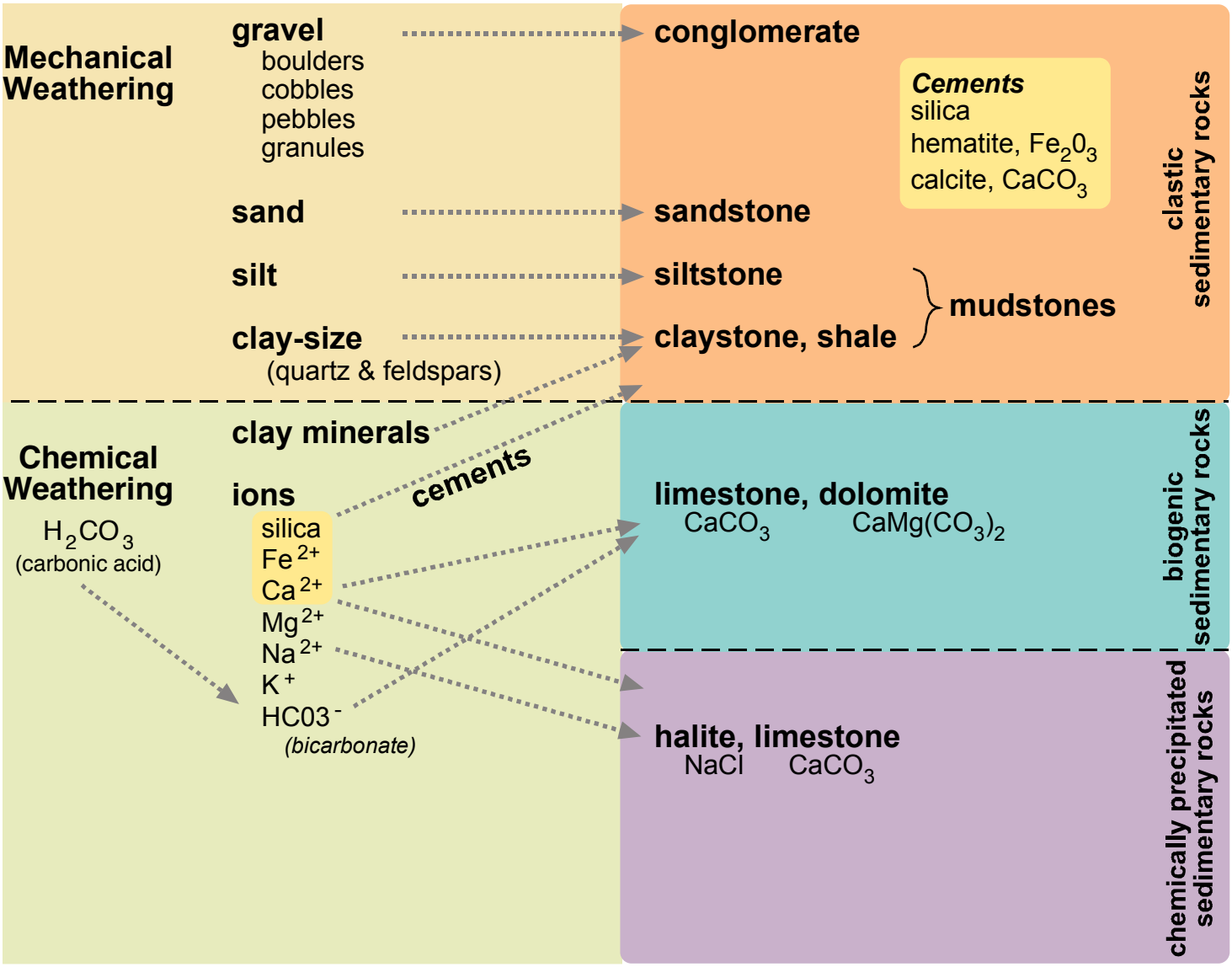
Mechanical Weathering
gravel
boulders
cobbles
pebbles
granules
sand
silt
clay-size
(quartz & feldspars)
conglomerate
Cements
silica
hematite, Fe_2O_3
calcite, $CaCO_3$
sandstone
siltstone
claystone, shale
mudstones
clastic sedimentary rocks
Chemical Weathering
H_2CO_3
(carbonic acid)
clay minerals
ions
silica
Fe^{2+}
Ca^{2+}
Mg^{2+}
Na^{2+}
K^+
$HCO3^-$
(bicarbonate)
cements
limestone, dolomite
$CaCO_3$
$CaMg(CO_3)_2$
biogenic sedimentary rocks
halite, limestone
NaCl
$CaCO_3$
chemically precipitated sedimentary rocks