We present the underlying mixing of quark components of scalar mesons in low energy scatterings and decays within a generalized linear sigma model which contains two scalar meson nonets and two pseudoscalar meson nonets (a quark-antiquark nonet and a four-quark nonet). The model has been previously employed in various investigations of the underlying mixings among scalar mesons below and above 1 GeV (as well as those of their pseudoscalar chiral partners) and has provided a coherent global picture for the physical properties and quark substructure of these states. The potential of the model is defined in terms of two- and four-quark chiral nonets and based on the number of underlying quark and antiquark lines in each term in the potential, a criterion for limiting the number of terms at each order of calculation (and systematically further improving the results thereafter). We have explored the underlying mixings among scalar mesons in the $\eta' \to \eta\pi\pi$ decay and also in πK and $\pi\eta$ scatterings. It is found that the linear sigma model with only a single lowest-lying nonet is not accurate in predicting the decay width and the amplitude, but inclusion of the mixing of this nonet with the next-to-lowest-lying nonet, together with the effect of the final-state interactions, significantly improves this prediction. This investigation provides further support for the global picture of scalar mesons: those below 1 GeV are predominantly four-quark states and significantly mix with those above 1 GeV, which are closer to the conventional p-wave quark-antiquark states. Now we are investigating the mixing among scalars and glueballs in linear sigma model as we believe this has considerable effects on the results.