

## Depositional Environments

Location	Environment	Agents of Deposition	Sediment Types	Rock Types / Structures / Fossils
<b>1. Alluvial Fan</b>	Continental	water, gravity	poorly sorted rock and mineral fragments	any detrital rock type including arkose
<b>2. Desert Dunes</b>	Continental	wind	rounded, well-sorted sand-sized quartz	sandstone with cross bedding
<b>3. Lake / Playa Lake</b>	Continental	water	sand, mud; halite and gypsum in dry climates	sandstone, mudstone or shale; evaporites
<b>4. Glacial</b>	Continental	ice, water	poorly sorted deposits with variable grain size	any detrital, except arkose
<b>5. River/Stream</b>	Continental	water	sand in channels, mud and plant materials outside	sandstones w/ ripple marks & cross beds, mudrocks, possible coal / plant fossils
<b>6. Beach</b>	Transitional	water	quartz sand and shell fragments	quartz sandstones with shell fragments
<b>7. Delta</b>	Transitional	water	sand in channels; mud and plant material	sandstones, shale, possible coal / plant fossils
<b>8. Tidal Flat</b>	Transitional	water	mud, calcite-rich mud	Mostly fossiliferous mudrocks, limestone
<b>9. Barrier Island</b>	Transitional	water	quartz sand and shell fragments	sandstones with shell fragments
<b>10. Shallow Marine</b>	Marine	water	sand to mud to calcite-rich mud, shells	sandstone, mudrocks, limestone w/ marine fossils
<b>11. Deep Marine</b>	Marine	water	clay-sized fragments, microscopic calcite & silica shells	claystone, chalk, chert
<b>12. Organic Reef</b>	Marine	water, corals	calcite from abundant marine life, esp. corals	fossiliferous limestone
<b>13. Submarine Fan</b>	Marine	water, turbidity currents	graded beds, mud	mudstone, sandstone showing graded beds
<b>14. Continental Shelf</b>	Marine	water	mud	mudrocks
<b>15. Lagoon</b>	Marine	water	fossils, mud and calcite-rich mud	fossiliferous shales and limestones

