

Table 2 Sediment Sizes and Detrital Rocks			
Sediment	Size Range	Example	
Clay	<0.004 mm	Shale	
Silt	0.004–0.063 mm	Siltstone	
Sand	0.063–2 mm	Sandstone	
Gravel	>2 mm	Conglomerate (shown) or Breccia	

Cementation If sediments are large, like sand and pebbles, pressure alone can't make them stick together. Large sediments have to be cemented together. As water moves through soil and rock, it picks up materials released from minerals during weathering. The resulting solution of water and dissolved materials moves through open spaces between sediments. **Cementation**, which is shown in **Figure 13**, occurs when minerals such as quartz, calcite, and hematite are deposited between the pieces of sediment. These minerals, acting as natural cements, hold the sediment together like glue, making a detrital sedimentary rock.

Shape and Size of Sediments Detrital rocks have granular textures, much like granulated sugar. They are named according to the shapes and sizes of the sediments that form them. For example, conglomerate and breccia both form from large sediments, as shown in **Table 2**. If the sediments are rounded, the rock is called conglomerate. If the sediments have sharp angles, the rock is called breccia. The roundness of sediment particles depends on how far they have been moved by wind or water.

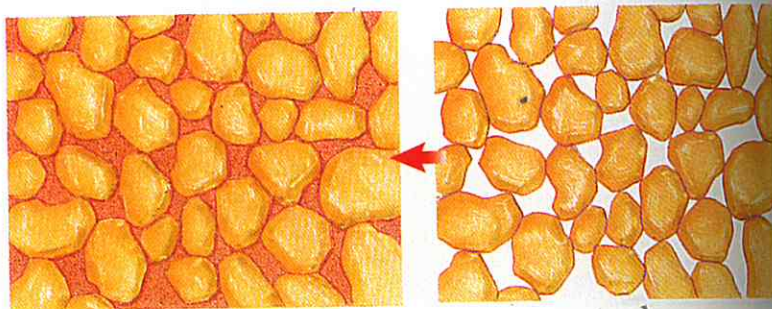


Figure 13 Sediments are cemented together as minerals crystallize between grains.



material d eroded ents also position of the sedi- rocks are which they s detrital, are com- atin word imentary n the bro- are com- sed to air, ically and to smaller ese pieces material is v location, er of sedi- s: down on r can stick Figure 12,