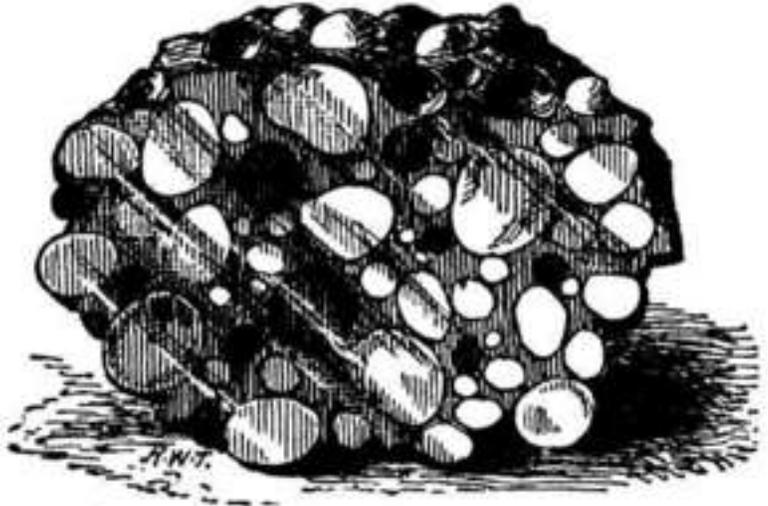


Clastic Sedimentary Rocks

By Cindy Grigg

¹ Rocks can be put into three main groups. They are grouped by how the rocks formed. Sedimentary (sed-uh-MEN-tuh-ree) rocks are formed on or near Earth's surface. Sedimentary rocks are divided into other groups. They are clastic or non-clastic. This grouping tells more about how the rocks formed and what they formed from.



² Rocks that are made of bits of other rocks that have been weathered, eroded, and deposited are called clastic rocks. Clasts are the fragments of rocks and minerals. Examples of clastic rocks are sandstone and mudstone. Non-clastic rocks are created when water evaporates or from the remains of plants and animals. Limestone is a non-clastic sedimentary rock.

³ Clastic sedimentary rocks are classified by the shape of their grains. Grains can be very angular, angular, rounded, or well rounded. The shape of the grains gives rocks their texture. The texture may feel like sandpaper, or it may feel smooth and greasy. When mineral grains are carried by wind, water, or ice, they bump into each other. When they do, the corners of the grains get broken off and smoothed. The more bumping that happens, the smaller and smoother the grains become.

⁴ Sediments from glaciers are often very angular. The ice of the glacier protects the sediments from bumping together. Grains carried by wind are often well rounded because they constantly bump together. Sediments carried by water are smooth with rounded edges. The farther they are carried by water or the more forceful the water is, the smoother the rocks become.

⁵ Grain size is still another way to classify these rocks. Shale is formed from clay. Its grains are often so small that they cannot be seen without a microscope. Conglomerate is a sedimentary rock that has very large grains. Conglomerate rock may contain pebbles two-tenths of an inch across or larger. The "grains" may be boulders the size of footballs!

⁶ The grains of conglomerate rocks are cemented together with sand. Weight presses down from layers above. Water seeps in, carrying dissolved minerals that cement the loose sand and clasts together.

⁷ The grains in conglomerate rocks often have smooth, rounded edges. That is because they were deposited by fast-flowing rivers. Breccia, on the other hand, is made of sharp-edged, large grains. The grains may be pebble-sized or larger. These grains were deposited by rivers on steep slopes or by glaciers.

⁸ Sedimentary rocks are grouped according to their origin, composition, grain size, and grain shape.

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<p>1. The author wrote this piece of text for the purpose of _____.</p> <p><input type="radio"/> A Narrating a story</p> <p><input type="radio"/> B Expressing feelings</p> <p><input type="radio"/> C Informing</p> <p><input type="radio"/> D Entertaining</p>	<p>2. What causes grains of sand to stick together to make rocks?</p> <p><input type="radio"/> A Weight presses down from above and water seeps in, carrying dissolved minerals that cement the loose sediments together.</p> <p><input type="radio"/> B Trash compactors press the grains of sand together.</p> <p><input type="radio"/> C Wind and water carry sediments and deposit them.</p> <p><input type="radio"/> D None of the above</p>
<p>3. What do you think "angular" means?</p> <p><input type="radio"/> A Pointless</p> <p><input type="radio"/> B Well-rounded</p> <p><input type="radio"/> C Geometric</p> <p><input type="radio"/> D Sharp-edged</p>	<p>4. What are two types of sedimentary rocks?</p> <p>_____</p> <p>_____</p>
<p>5. Clastic rocks form from:</p> <p><input type="radio"/> A Sand</p> <p><input type="radio"/> B Fragments of other rocks</p> <p><input type="radio"/> C Plants</p> <p><input type="radio"/> D Magma</p>	<p>6. What is the main difference between conglomerate and breccia?</p> <p><input type="radio"/> A Conglomerate has rounded grains while breccia has angular grains.</p> <p><input type="radio"/> B Conglomerate has larger grains than breccia.</p> <p><input type="radio"/> C Conglomerate has angular grains while breccia has rounded grains.</p> <p><input type="radio"/> D None of the above</p>

