

Name:

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**Rock Groups**

	<b>Igneous</b>	<b>Sedimentary</b>	<b>Metamorphic</b>
<b>Formation</b>			
<b>Classification</b>			
<b>Uses</b>			
<b>Vocabulary</b>			
<b>Examples</b>			

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### Rock Groups

	Igneous	Sedimentary	Metamorphic
<b>Formation</b>	<p>-Forms from the <u>cooling of magma or lava</u>.</p> <p>-Magma hardens underground to form intrusive rock.</p> <p>-Lava erupts, cools, and hardens to form extrusive rock on Earth's surface.</p>	<p>-Forms when <u>small particles</u> of rocks or the remains of plants and animals <u>are pressed and cemented together</u>.</p> <p>-Forms in layers that are buried below the surface.</p> <p>-Formed through a sequence of processes: weathering, erosion, deposition, compaction, and cementation.</p>	<p>-Forms when a rock is <u>changed by heat or pressure, or by chemical reactions</u>.</p> <p>-Forms deep underground.</p>
<b>Classification</b>	<p>Classified by origin, texture, and mineral composition.</p> <p><del>-Extrusive:</del> forms from lava that erupted onto Earth's surface; fine-grained; small or no crystals.</p> <p><del>-Intrusive:</del> forms when magma hardens beneath the surface of Earth; coarse grained; large crystals.</p> <p>-High amounts of silica forms light-colored rocks.</p>	<p>Classified by the processes that form them</p> <p><del>-clastic:</del> form when rock fragments are squeezed together.</p> <p><del>-organic:</del> form where the remains of plants and animals are deposited in layers.</p> <p><del>-chemical:</del> form when minerals dissolved in a water solution crystallize.</p>	<p>Classified according to the arrangement of grains that make up the rocks.</p> <p><del>-foliated:</del> grains arranged in parallel layers or bands</p> <p><del>-nonfoliated:</del> mineral grains are arranged randomly</p>
<b>Uses</b>	<p>Tools, building materials</p> <p>granite: statues, fortresses, buildings, bridges, floors, countertops</p> <p>basalt: cobblestones, landscaping, roads</p> <p>pumice: abrasive cleaning and polishing</p> <p>obsidian: sharp tools</p> <p>perlite: mixed with soil for vegetable seeds.</p>	<p>Tools, building materials</p> <p>chert: spearheads</p> <p>flint: arrowheads</p> <p>coal: fuel</p> <p>sandstone and limestone: buildings</p> <p>limestone: cement and steel</p> <p>rock salt: melts ice</p>	<p>Building, sculpture</p> <p>marble: statues and buildings</p> <p>slate: roofing, outdoor walkways, trim</p>
<b>Vocabulary</b>	<p><del>extrusive:</del> forms from lava above Earth's surface</p> <p><del>intrusive:</del> forms from magma below Earth's surface.</p>	<p><del>Sediment:</del> small, solid pieces of material that come from rocks or living things.</p> <p><del>weathering:</del> the effects of freezing and thawing, plant roots, acid, and other forces on the rock.</p> <p><del>erosion:</del> the process by which running water, wind, or ice carry away bits of broken-up rock.</p> <p><del>deposition:</del> the process by which sediment settles out of the water or wind carrying it.</p> <p><del>compaction:</del> the process that presses sediments together.</p> <p><del>cementation:</del> the process in which dissolved minerals crystallize and glue particles of sediment together</p>	<p><del>foliated:</del> grains arranged in parallel layers or bands</p> <p><del>nonfoliated:</del> mineral grains are arranged randomly</p>
<b>Examples</b>	<p>extrusive: basalt, rhyolite, obsidian, pumice</p> <p>intrusive: granite, porphyry, pegmatite, quartz</p>	<p>clastic: shale, sandstone, conglomerate, breccia</p> <p>organic: coal, limestone</p> <p>chemical: limestone (from calcite), rock salt (halite)</p>	<p>foliated: gneiss, slate</p> <p>nonfoliated: marble, quartzite</p>