

Volcanoes

By Kathleen W. Redman

¹ Life is full of accidents. You've probably had some accidents in your lifetime. Have you ever cut yourself accidentally? A lot of things happen when you cut yourself. First of all, it hurts. Sometimes it hurts a lot. Secondly, many cuts bleed. Your body forms a scab. Sure, they're gross, but scabs keep you from bleeding to death.

² That whole process makes you a little like a volcano.

³ The Earth is made up of many parts. Deep inside the Earth is very hot. It's hot enough to melt rocks. This layer of hot, molten rock is called the mantle. Around the mantle is a relatively thin layer called the crust. Sand, dirt, bedrock, mountains, and ocean floors are all part of the crust.

⁴ The crust is always changing. Continents are always moving. Parts of the crust pull apart and push together. All this pushing and pulling creates breaks in the Earth's surface, just like a cut on your arm breaks the skin. Like a cut on your arm, sometimes something escapes from breaks in the Earth's surface.

⁵ In many cases, melted rock under the crust-called magma-

⁶ escapes through these breaks. The magma is under great pressure. The pressure shoots melted rock and ashes high into the air. As the magma escapes, it cools. When it cools, it hardens. More lava--

⁷ magma that has come out of the ground-flows on top, and it hardens, too. This can go on and on to create mountains. Sometimes, cooled lava can cover the cut in the Earth's crust and stop more lava from escaping. Sometimes magma can burst through the cooled lava and cause another eruption.

⁸ There are many different kinds of volcanoes in many different places all over the world. There are even many volcanoes at the bottom of the sea. Different kinds of volcanoes have different kinds of lava-thick or thin-and different cooling temperatures. Some volcanoes are small, and some are huge. There are cinder cones, composite volcanoes, shield volcanoes, and lava dome volcanoes. Many volcanoes form a rough circle around the Pacific Ocean. This circle of volcanoes is called the Ring of Fire.

⁹ Volcanoes are explosive, unpredictable displays of the power that is only partially contained under the Earth's crust.



Name _____

Date _____

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<p>1. What is one of the effects of parts of the Earth's crust pulling apart and pushing together?</p> <p>_____</p> <p>_____</p>	<p>2. Which of these events happens first?</p> <p><input type="radio"/> A Parts of the crust pull apart and push together.</p> <p><input type="radio"/> B The magma cools and hardens.</p> <p><input type="radio"/> C Volcanic mountains are formed.</p> <p><input type="radio"/> D Breaks occur in the Earth's crust.</p>
<p>3. Inside the Earth is very _____.</p> <p><input type="radio"/> A Hot</p> <p><input type="radio"/> B Green</p> <p><input type="radio"/> C Soft</p> <p><input type="radio"/> D Cold</p>	<p>4. The Earth's crust surrounds its _____.</p> <p><input type="radio"/> A Mountains</p> <p><input type="radio"/> B Volcanoes</p> <p><input type="radio"/> C Valleys</p> <p><input type="radio"/> D Mantle</p>
<p>5. Magma is _____.</p> <p><input type="radio"/> A Metal</p> <p><input type="radio"/> B Melted rock</p> <p><input type="radio"/> C Very cold rock</p> <p><input type="radio"/> D Steam</p>	<p>6. Lava is _____.</p> <p><input type="radio"/> A A kind of island made by a volcano</p> <p><input type="radio"/> B Pieces of Earth's crust</p> <p><input type="radio"/> C Magma that has come out of the ground</p> <p><input type="radio"/> D The name of a volcano</p>
<p>7. Which of these is not a type of volcano?</p> <p><input type="radio"/> A Shield</p> <p><input type="radio"/> B Fault-block</p> <p><input type="radio"/> C Composite</p> <p><input type="radio"/> D Lava dome</p>	<p>8. There are no volcanoes on the bottom of the oceans.</p> <p><input type="radio"/> A False</p> <p><input type="radio"/> B True</p>

