

Round: 12A
Category: Geology
Time: 5 Minutes

You are the grand winner on the latest TV Game Show. You are able to choose from one of two islands in the Pacific Ocean where they will build your dream home. Both islands are active volcanoes: one is basaltic and the other is andesitic. Of course you want to move to the island that is safer, so you need to decide which volcano is potentially less explosive.

1. Check the box of lava that the category on the left describes. (12 pts)

	Island # 1: ANDESITE LAVA	Island #2: BASALT LAVA
Higher abundance of dissolved water (H ₂ O)		
Higher silica content (SiO ₂)		
Higher temperature at eruption site		
Higher viscosity		
Provide a real life example of these islands in the Pacific Ocean		

2. Describe the style of each eruption: (6 pts)

a. basaltic:

b. andesitic:

3. To which island do you want to move? (2 pts)

ANSWER

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1. Check the box of lava that the category on the left describes.

	Island # 1: ANDESITE LAVA	Island #2: BASALT LAVA
Higher abundance of dissolved water (H ₂ O)	<i>X (2 pts)</i>	
Higher silica content (SiO ₂)	<i>X (2 pts)</i>	
Higher temperature at eruption site		<i>X (2 pts)</i>
Higher viscosity	<i>X (2 pts)</i>	
Provide a real life example of these islands in the Pacific Ocean	<i>Japan, Phillipines OR Aleutian Islands (2 pts)</i>	<i>Hawaii (2 pts)</i>

2. Describe the style of each eruption:

- a. basaltic: non-explosive, flowing lava (3 pts)
- b. andesitic: violent explosions OR contains pyroclastic material (3 pts)

3. To which island do you want to move? Island #2 of Basaltic Lava (2 pts)