**Viscosity and Pressure in Volcanic Eruptions Worksheet**

**Part 1: Pressure Relief / Degassing**

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| *Instructions*: Shake two sealed carbonated beverage cans for 10 seconds. |
| What happened when you opened the can quickly (in less than one second)? |
| What happened when you opened the can slowly (taking 30 seconds)? |
| How does this relate to how an agitated volcano with lots of dissolved gasses in its magma erupts? |

**Part 2: Viscosity**

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| *Instructions*: Use marbles to rank the viscosity of the fluids from lowest to highest: |
| Lowest Viscosity | 1. \_\_\_\_\_\_\_ 2. \_\_\_\_\_\_\_ 3.\_\_\_\_\_\_\_
 | Highest Viscosity |
| What do you notice about the higher viscosity fluid vs. the lower viscosity fluid when you stir/blow bubbles through them? |

**Viscosity (continued)**

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| How might this relate to the strength of an eruption in a volcano with built up pressure? |

**Concluding Questions**

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| How do viscosity and time allowed for a volcano to degas effect the explosiveness an eruptions?How might understanding characteristics of explosive eruptions have human or engineering applications? |