

The Alchemist Argument

Evidence

Name: **ANSWER KEY**

Directions: After each Mystery, add any new evidence that supports an alchemist's claim. Use the evidence to help you support your argument.

	Hermes: "I think that the stone gets really old, decays, and falls apart."	Robert: "I think that a substance reacts with the stone and turns it into different materials."	Mary: "I think that the stone reacts with water and air which creates rust on top of the stone."	Zosimos: "I think that water washes over the stone, making it disappear. It doesn't exist anymore."
Mystery 1: Are magic potions real?	<i>The penny gets clean...the coating on it disappears (not due to age).</i>	<i>The penny gets clean from the salt and vinegar. The penny changed from dark copper into shiny copper.</i>	<i>The penny has a layer of dark substance on it that looks like rust.</i>	<i>The penny gets clean (but not with water) and the coating disappears.</i>
Mystery 2: Could you transform something worthless into gold?	<i>The dark stuff became particles too small to be seen in the solution. The sugar dissolves and can't be seen.</i>		<i>The penny is coated with the dark substance that looks like rust. The substance did not replace the copper penny, it was layered on top. Water does not remove the substance from the penny.</i>	<i>The dark stuff became particles too small to be seen in the solution. The sugar dissolves and can't be seen.</i>
Mystery 3: What would happen if you drank a glass of acid?	<i>Acids can make things break down. Example: the cans disappear and the baking soda fizzes (not due to age).</i>	<i>Acids can change metals by reacting with them. Acids can also cause color changes and make things fizz.</i>		<i>It's not water, but acids can make things dissolve and seem to disappear.</i>
Mystery 4: What do fireworks, rubber and silly putty have in common?		<i>Chemical reactions create a new substances. When metal and acid react you get a powder. They have new properties. Example: Tree sap + acid = rubber</i>	<i>Reactions can create a new substance. Rust is created by a chemical reaction.</i>	
Mystery 5: Why do some things explode?		<i>Gas is produced when a substance reacts with an acid. Vinegar (liquid) and baking soda (solid) produce a gas that we can't see.</i>		