

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.</i> <i>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.</i> <i>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.</i> <i>Water does not remove the substance from the penny.</i>	<i>The dark stuff became particles too small to be seen in the solution.</i> <i>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.</i> <i>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.</i> <i>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.</i> <i>Vinegar (liquid) and baking soda (solid) produce a gas that we can't see.</i>		