

Name: \_\_\_\_\_

## Glass: More Than Meets the Eye Student Sheet

**Directions:** *Before reading*, in the first column, write “A” or “D,” indicating your agreement or disagreement with each statement. As you read, compare your opinions with information from the article. **In the space under each statement, cite information from the article that supports or refutes your original ideas.**

Me	Text	Statement
		1. Ultraviolet light is often used to examine physical properties of glass.
		2. The flotation method for determine the density of glass is more accurate than finding its mass and volume separately.
		3. Some glass is less dense than water.
		4. There are only about 100 different types of glass, and the FBI has a database of their refractive index values.
		5. Different glass samples having the same density and refractive index have the same chemical composition.
		6. Most glass is made of silicon dioxide
		7. A radial fracture from a bullet hole will always terminate in cracks from previous fractures.
		8. Exit holes from bullets are always larger than entrance holes.
		9. There is no way to tell if a light bulb was on or off when the bulb broke.

**Directions:** As you read the article, describe each property of glass and tell how it can be used by forensic scientists to gather information

<b>Property</b>	<b>Description</b>	<b>Usefulness in forensics</b>
<i>Thickness</i>		
<i>Density</i>		
<i>Refractive Index</i>		
<i>Chemical Composition</i>		
<i>Elasticity</i>		
<i>Filament Clues</i>		

**Directions:** Answer the following questions about the article. All answers must be in complete sentences

1. Name two most often used methods of glass analysis.
2. What two substances are added to silica as glass is made?
3. What does the term “amorphous” mean?
4. What does the index of refraction measure?
5. What is the important ingredient in bullet-proof glass?
6. What are the two types of glass fractures?