

**Instructions (shown before students start the test)**

**Introduction (shown after students start the test)**

Following this introduction, you will be taking a sample practice test to help you learn to navigate taking a virtual Crime Busters test. This is not a full blown test but a sampling of a variety of types of questions on many of the topics in this event.

1. (1.00 pts) Identify the following powder/crystal by chemical name based on the following test results: became jelly-like when mixed with water.

2. (1.00 pts) Identify the following powder by chemical name based on the following test results: soluble in water (a little lumpy) and turned blue in iodine.

3. (1.00 pts) Vitamin C has a pH of 5.


True  False

4. (1.00 pts) Sodium Chloride can be identified by its hexagonal crystals.

True  False

5. (1.00 pts) When iodine is added to this clear liquid, it bubbles. What is this liquid?

6. (1.00 pts) This metal is heavy and reacts with HCl, what is it?

7. (1.00 pts) Identify the following hair: 

- A) Cat  
 B) Human  
 C) Dog  
 D) None of the Above

8. (1.00 pts) Dog hairs contain ovoid bodies which distinguishes them from human and cat hairs.

True  False

9. (1.00 pts) Identify the following category this fiber belongs to based on the following test results: shriveled, and smelled like burning hair.

- A) Vegetable
- B) Animal
- C) Synthetic
- D) None of the Above

10. (1.00 pts) A piece of plastic was tested with the following results: floated in water and sank in vegetable oil

- A) Polystyrene
- B) Polyvinyl Chloride
- C) Polyethylene Terephthalate
- D) Low Density Polyethylene
- E) Polypropylene
- F) High Density Polyethylene

11. (1.00 pts) Name 2 types of chromatography and what they are used for.

12. (1.00 pts) In paper Chromatography, what is the stationary phase?

13. (1.00 pts) Whorls are the most common type of fingerprint.

- True
- False

14. (1.00 pts)

The following is an example of what kind of fingerprint?



- A) Whorl
- B) Loop
- C) Arch
- D) The correct answer is not listed.
- E) A and C
- F) B and C

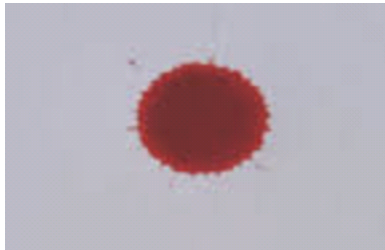
15. (1.00 pts) What things can you tell from a footprint?

16. (1.00 pts) This type of soil is made up of large grains and contains no organic material.

17. (1.00 pts) This type of soil is comprised of 50% clay, 40% sand and 10% silt. Name the type of soil.

18. (1.00 pts)

The following is what kind of blood spatter:



- A) Medium Velocity Impact Spatter
- B) High Velocity Impact Spatter
- C) Arterial Spurt Spatter
- D) Low Velocity Impact Spatter
- E) Straight drop Spatter
- F) Both D and E

19. (1.00 pts) There can be multiple suspects to write about in the analysis.

- True
- False

20. (1.00 pts) In writing the analysis of the crime, you should list a possible motive for each culprit.

- True
- False

21. (1.00 pts) Ammonia has a pH of 10.

- True
- False

22. (1.00 pts) This liquid can be identified by its sweet smell and clear color.

23. (1.00 pts) This metal has a yellowish tinge and is not magnetic.

24. (1.00 pts) Polypropylene is abbreviated by the symbol \_\_\_\_\_ and has a density of \_\_\_\_\_.

25. (1.00 pts) Where can you find the cortex in a hair?

I hope you found this helpful and learned a lot!