

Investigator (your name): _____

Date: _____

BIO BUGS PRE-LAB EXERCISE: WHODUNIT

In this lab we will solve the theft at the Olympics. Forensic evidence was gathered and as trainees of the forensic investigative team you will analyze blood samples, fingerprints, cardiovascular health, and DNA from several suspects to determine WHODUNIT!

Before starting your training session, you need to prepare by studying various forensic techniques.

1. Blood Analysis:

a. Catalase test:

i. What is catalase? _____

ii. What is H_2O_2 ? _____

iii. Why does adding blood to H_2O_2 create bubbles? _____

b. Blood type:

i. What are the 4 different blood types? _____

ii. What is agglutination? _____

iii. Which blood type is considered the universal donor? Why? _____

2. Fingerprint Analysis:

i. What is the difference between known prints and latent prints? _____

ii. Why are fingerprints useful in forensic analysis? _____

3. Cardiovascular Analysis:

i. How could you find out how “strong” (healthy) your heart is? _____

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- ii. What are the four chambers of a human heart? Which are oxygenated and which are not? _____

4. DNA Analysis:

- i. What is gel electrophoresis? _____

- ii. Why is DNA not enough evidence for forensic analysis? _____

Congratulations Detective! You are ready to start your investigation!