**Unit 3:**

**Drugs & Toxicology, Blood & Spatter, and DNA Study Guide**

**Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. List the five types of controlled substances and how they generally affect people.
2. List the three ways people can *be exposed* to drugs.
3. Describe at least two other substances that can be considered to be a toxin.
4. Compare presumptive vs confirmation tests
5. BAC – meaning? Legal limits?
6. What is a field sobriety test and how is it performed?
7. What is the composition of blood and what do they do? (four major parts)
8. Describe an antigen-antibody reaction and explain how an antibody identifies the antigen.
9. Describe how to determine someone’s blood type.
10. Explain why blood types provide class evidence and not individual evidence.
11. Distinguish between spikes and satellites on blood spatter.
12. Distinguish between blood spatter based upon blood dropping onto a smooth surface and a rough or textured surface.
13. Describe the six types of blood spatter (not in your notes but on powerpoint!!).
14. Explain how to draw lines of convergence from several drops of blood in order to determine the area of convergence.
15. Describe how to determine the height of the source of blood known as point of origin using the tangent law.
16. Describe the structure of a DNA molecule (nuclear).
17. Explain why DNA evidence is considered to be individual evidence.
18. Compare VNTR and STR strands with regard to size and number of base pairs.
19. Explain the role of DNA fingerprints in:
	1. tissue matching
	2. inheritance matching
20. Discuss the advantage of using mitochondrial DNA (mtDNA) instead of nuclear DNA in an attempt to identify the remains of an individual.