

CRIME SCENE TEST KEY

Vocabulary:

1. RIGOR MORTIS – OCCURS AFTER DEATH AND RESULTS IN THE STIFFENING OF THE BODY PARTS IN THE POSITION THEY ARE IN WHEN DEATH OCCURS.
2. PHYSICAL EVIDENCE – ANY OBJECT THAT CAN ESTABLISH THAT A CRIME HAS OR HAS NOT BEEN COMMITTED OR CAN LINK A CRIME AND ITS VICTIM OR ITS PERPETRATOR.
3. STANDARD / REFERENCE SAMPLE – PHYSICAL EVIDENCE WHOSE ORIGIN IS KNOWN, SUCH AS BLOOD OR HAIR FROM A SUSPECT, THAT CAN BE COMPARED TO CRIME SCENE EVIDENCE.
4. ALGOR MORTIS – REFERS TO POSTMORTEM CHANGES THAT CAUSE A BODY TO LOSE HEAT.
5. BUCCAL SWAB – TAKEN FROM THE INNER CHEEK TO COLLECT CELLS FOR USE IN DNA DETERMINATION.
6. FINISHED SKETCH – A PRECISE RENDERING OF THE CRIME SCENE, USUALLY DRAWN TO SCALE.
7. CHAIN OF CUSTODY – THE LIST OF PEOPLE WHO CAME INTO POSSESSION OF AN ITEM OF EVIDENCE.
8. LIVOR MORTIS – OCCURS AFTER DEATH AND RESULTS IN THE SETTLING OF BLOOD IN AREAS OF THE BODY CLOSEST TO THE GROUND.
9. ROUGH SKETCH – A DRAFT REPRESENTATION OF ALL ESSENTIAL INFORMATION AND MEASUREMENTS AT A CRIME SCENE.
10. SUBSTRATE CONTROL – THE UNCONTAMINATED SURFACE MATERIAL CLOSE TO AN AREA WHERE PHYSICAL EVIDENCE HAS BEEN DEPOSITED.
11. AUTOPSY – THE MEDICAL DISSECTION AND EXAMINATION OF A BODY IN ORDER TO DETERMINE

Physical Evidence Notes:

1. What are examples of physical evidence?

Paint, glass, fingerprints, dirt, dust, dna

2. Give some examples of paint class.

Automobile, House, Nail Polish

3. List some characteristics of glass that can be analyzed by a crime lab.

Color, Tint, Surface, Thickness, Density

4. What is GSR?

Gunshot Residue

5. What is the IBIS?

Integrated Ballistics Identification System

6. What are the three types of fingerprints?

Arches, Loops and Whorls

7. What are fracture lines?

Edges formed when an object is broken

8. Where do investigators extract DNA from?

Hair, Fingernails, Teeth, Blood

9. What can anthropologist use skeletal remains to determine?

Sex, Age, Race and Stature

10. What do anthropologist do?

Analyze skeletal remains

11. What types of body fluids can be analyzed at a crime scene?

Blood, Semen, Saliva, Sweat, Urine

12. What has to be present in order to get DNA from hair?

The Root

Skeletal Remains Notes (Pictures of the Pelvis on the top of the handout):

1. What are some of the main differences between a male and female skeleton?

Females have a wider pelvis, smaller skull, higher forehead and a smaller frame

2. What are some characteristics of a Caucasian skeleton?

Eye Orbitals – Oval, Nasal Cavity – Long and Narrow, Smooth Incisors, Flat Cranium

3. What are some characteristics of a mongoloid skeleton?

Eye Orbitals – Circular, Nasal Cavity – Small and Round, Flat Cranium

4. What are some characteristics of a Negroid skeleton?

Eye Orbitals – Square, Nasal Cavity – Wide, Smooth Incisors, Outward Cranium

Collecting and Preserving Physical Evidence Notes:

1. How do forensic scientists preserve the crime scene?

Ropes and Barricades

2. What are the three methods used to preserve the crime scene?

Photography, Sketches and Notes

3. What is the difference between a rough and finished sketch?

Rough sketch is a draft and the finished sketch is neat and to scale

4. What type of things must be recorded when taking notes at a crime scene?

Who discovered, packaged and moved physical evidence

5. List objects that must be immediately sent off to the crime lab when found at a crime scene.

Victims clothing, fingernail scrapings, head and pubic hair, blood, etc

6. Describe some situations in which a warrantless search is legal.

a. emergency situation b. prevent loss of evidence c. consent from party d. knowledge the person will be arrested

Entomology (textbook):

1. What is forensic entomology?

Use of insects to aide in legal investigators

2. What is the PMI?

Postmortem Interval – time between death and corpse discovery

3. What is the ideal temperature for flies to make a complete life cycle?

70 degrees F

4. List the order in which insects will arrive at a dead body.

Necrophages, Omnivores, Parasites and Predators, Incidentals

5. How do wounds affect a flies arrival time?

6. List the stages of a flies life cycle?

Eggs – Larvae – Pupa - Adult

Death and Autopsy Notes:

1. Describe Livor, Rigor and Algor Mortis.

Livor – Settling of blood to the ground, Rigor – Stiffening of the body, Algor – body loses heat

2. When does Livor Mortis begin?

Up to 12 hours after death

3. When does Rigor Mortis start and end?

24 – 36 hours after death

4. What is the rate in which the body loses temperature during algor mortis?

1 to 1 and half degrees per hour

5. What other influences can help determine when a person died?

Potassium levels in the eye, stomach contents