GSI: Gruff Scene Investigations

Game Design Document

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Table of contents:

Intro

We'll be covering from start to finish a forensics investigation of a murder case. The game involves contextual clues on securing the scene, collecting evidence, analysing the evidence, and then reaching a conclusion on the killer.

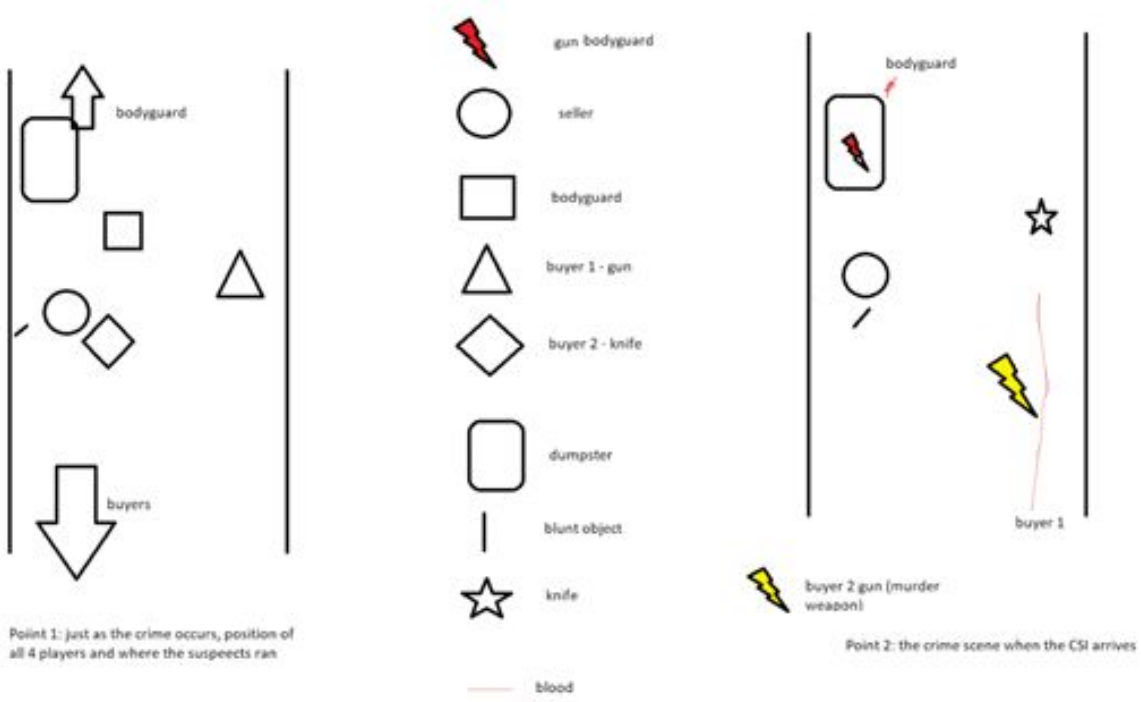
Rough Plot

The game will be split into three parts: the crime scene, the forensics lab, and a courtroom. The crime scene involves 4 people in a drug deal gone wrong leaving one of them dead. It is up to the player to determine who was involved and who killed the victim. The player must secure evidence and the scene itself using contextual clues. After the player has scoured the crime scene, they move onto the forensics lab where they analyze any and all evidence gathered at the scene through a series of small matching minigames. Once the player has analyzed all the evidence, they need to reach a conclusion which they'll state in the third scene, the courtroom. This scene has the player recite what they did in the previous two scenes and state their final conclusion on the culprit. If done correctly, the game will end in a victory state. If done incorrectly, the game let the player know they picked the wrong answer and let them choose again.

Murder Narrative

The basis of any crime investigation is the crime itself. This is an original crime case written for this game. The goal of the murder narrative is to create a convincing foundation for the crime investigation, and by the time the player finishes the game, they should be able to tell the story of this crime without seeing it at all. One of the main goals of this murder narrative is for the player to be able to piece together the story without interacting with any suspects.

Scenario: Drug deal
Location: An alleyway, both ends open up to different streets
Characters: Seller – the victim of the narrative, carries no weapons on him, gives drugs to buyers
Bodyguard – present to protect seller, armed with gun
Buyer 1 – buying and claiming drugs from seller, armed with gun
Buyer 2 – buying and claiming drugs from seller, armed with knife
Diagrams (referenced during narrative):



Narrative:

All four characters arrive at alleyway to do drug trade. Seller and both Buyers stand near center of alleyway, with seller standing close to one wall, and the bodyguard stands in front of them to one side to block view from one of the alleyway entrances. There is a blunt object – a pipe or crowbar, undetermined yet – resting against the wall behind the seller.

Buyer 1 moves up to Seller, pays Seller for drugs, claims drugs, and steps back to the other side of the alleyway to organize his goods. Then Buyer 2 moves up to Seller to do the same. At this moment, the scene looks like Point 1 in the diagrams.

As Buyer 2 is paying for his drugs, Buyer 1 starts fidgeting with his phone, sweating and looking nervous*. Bodyguard notices this suspicious action and thinks Buyer 1 is going to sell them out, with the police, etc. and draws his gun, pointing it at Buyer 1 while yelling at and threatening him.

Upon seeing this, Buyer 2 panics and draws his knife, pointing it at Seller and threatening him to call off his bodyguard.

Seller quickly reaches behind him, grabs the blunt object resting against the wall, and swings it at Buyer 2 in self defense. Buyer 2 manages to stab Seller in the arm – the one not holding the blunt object – before the blunt object is swung against Buyer 2's knife hand, knocking the hand from his grip and sending it flying across the alleyway.

Buyer 1, in the panic of the attack by Seller, shoots Seller in the chest, killing him. Seller's body falls to the ground and he drops the blunt object next to him.

Bodyguard, upon seeing Buyer 1 shoot Seller, shoots Buyer 1 in the shoulder, wounding him.

As two gunshots have been fired and other people likely heard it, all living parties scatter.

Bodyguard runs up to the north alleyway opening, closest to where he was standing. As he runs, he passes a dumpster against the wall, which he opens and throws his gun into to hide it. In this panic, he slips, falling into the side of the dumpster, which cuts him and leaves some of his blood behind.
Both Buyers run the opposite direction of Bodyguard towards the south alleyway opening. Buyer 1, in the panic of the escape, drops his gun. Buyer 1 is also trailing blood from his gunshot wound in the shoulder.

This leaves the crime scene in the situation that the CSI will arrive to, as seen in Point 2. *the action that sets off Bodyguard is still up in the air; Buyer 1 must do something that Bodyguard finds suspicious and that makes him believe that Buyer 1 is a threat, causing him to draw his gun.

Status of everything at end of narrative:

- Seller: dead on ground with knife wound in arm and bullet wound in chest, has undistributed drugs still on his body
- Bodyguard: cut injury
- Buyer 1: the murderer, shoulder wound from bodyguard gun
- Buyer 2: unharmed
- Blunt Object: contains seller fingerprint and is clean, laying next to seller
- Knife: contains buyer 1 fingerprint and seller blood, laying on the other side of the alleyway after being knocked away
- Bodyguard gun: contains bodyguards fingerprint???, located in dumpster and one round shot
- Buyer gun: contains murderer's (buyer 1) fingerprints, on the ground, dropped as he ran down
- Blood locations: buyer 1's dripping blood trailing as he ran down, bodyguard's blood on object he cut himself on as he ran up

Game Narrative

Total Game narrative

1. Arrive on crime scene
2. Discuss the premise with officer on the scene
    a. Officer gives player the background
        i. Suspects in Custody
        ii. Witnesses heard gunshots
    b. Gives order of operations when investigating the scene
3. Investigate Crime Scene (order tbd)
    a. Find Knife, mark and photograph
    b. Find gun 1, mark and photograph
    c. Find blood on dumpster, mark and photograph
    d. Find blood on ground

    e. Find body, mark and photograph
    f. Look through dumpster for gun 2
4. Lab analysis: analysis of items can be done in any order
    a. Knife
        i. Match blood
        ii. Match fingerprints
    b. Gun 1
        i. Match Gun info
        ii. Match bullets
        iii. Match fingerprints
    c. Examine Dumpster diving output
        i. Identify the gun is important
    d. Gun 2
        i. Match Gun info
        ii. Match bullets
        iii. Match fingerprints
    e. Examine corpse
        i. Identify cause of death
        ii. 3 Injuries on Body
            1. Gunshot on chest (cause of death)
            2. Knife wound on arm
            3. Head injury from fall after death
5. Courtroom Questions
    a. Regarding the Scene
        i. Who was present?
            1. Corpse, obviously
            2. Buyer 1
                a. Fingerprints on gun 1
            3. Buyer 2
                a. Fingerprints on the knife
            4. Bodyguard
                a. Fingerprints on gun 2
    b. Regarding Gun1
        i. Who did it belong to?
            1. Buyer 1
        ii. Who was it used on?
            1. Victim
    c. Regarding Gun2
        i. Who did it belong to?
            1. Bodyguard
        ii. Who was it used on?
            1. Buyer 1
    d. Regarding Knife

        i. Who did it belong to?
            1. Buyer 2
        ii. Who was it used on?
            1. Seller
    e. Regarding Corpse
        i. What was the cause of death?
            1. Gunshot wound
    f. Charge Recommendation
        i. Buyer 1
            1. Murder
        ii. Buyer 2
            1. Assault with deadly weapon
        iii. Bodyguard
            1. Assault with deadly weapon
        iv. Seller
            1. He’s dead so no charges for him

Gameplay Description

The game takes place in a first person view with standard WASD controls, AB to bring up the player’s journal, and other keys as prompted for other interactions. The player will be able to move objects around as they see fit (depending on the object) and they also can use the E button to interact with objects in other ways such as securing evidence, turning on a machine, starting a matching puzzle etc. In the courtroom scene, it would follow more along the lines of a visual novel mechanic where there are several options of dialogue to choose from. They would be populated with whatever findings the player made in the first two scenes.

Lab Scene

Lab Game Flow

The analysis of the individual items can be done in any order, but must all be completed if the player is to properly complete the courtroom scene.

Each of the steps will be completed by taking the evidence item from the evidence room and taking it to a station in the lab to do the specific task. There will be 4 stations, fingerprinting station, gun identifying station, blood typing station and bullet matching station. Each of these stations will only be interact-able when an evidence item is held and the interaction will take the player to a specific matching game based on the item held and the station interacted with.

The body analysis will be in its own room and will be similar to the inspection at the scene but with more information, including what the cause of death was. There will be 3 segments of the body to be inspected, a knife wound, gunshot on the chest, and a head injury. The gunshot on the test will be the cause of death, all others are distractions. The body should be in a separate morgue room.

The rooms required and the items in them are as follows:

1. Evidence Room
    a. Knife
    b. Gun 1
    c. Dumpster Diving Items
        i. Gun 2
2. Analysis Room
    a. Gun analysis station
    b. Fingerprinting Station
    c. Blood DNA analysis station
3. Morgue
    a. Corpse

The required actions the player to complete are as follows and can be done in any order:

1. Items to Analyse
    a. Knife
        i. Match blood
        ii. Match fingerprints
    b. Gun 1
        i. Match Gun info
        ii. Match bullets
        iii. Match fingerprints
    c. Examine Dumpster diving output if incomplete
        i. Identify the gun is important
            1. Do Gun 2 analysis
    d. Gun 2
        i. Match Gun info
        ii. Match bullets
        iii. Match fingerprints
    e. Examine corpse
        i. 3 Injuries on body
            1. Knife wound
            2. Gunshot
            3. Back of head impact
        ii. Identify cause of death via dialogue question

Dialogue

1. General
    a. Intro
        i. Mr Gruff “Looks like they are short handed in the crime lab. Thankfully I’m also a trained crime lab technician and can do all the analysis necessary. TIme to get to work.”
        “Time to go to the evidence room and look at what we have.”

    b. Complete Analysis
        i. Mr Gruff “All the evidence is analysed and accounted for. Good job me!”
        “Now to take this to trial.”
2. Items to Analyse
    a. Knife
        i. On examine
            1. Mr Gruff “This is the knife I found at the scene. Possibly the murder weapon.”
            “There are probably fingerprints on the knife and the blood should be analysed as well.”
        ii. Match blood
            1. Matched Correctly
                a. Mr Gruff “Analysis matched. Looks like this knife was used on our victim.”
                "Knife blood analysis added to the journal."AddToJournal(The blood on the knife matched to the victim.)
            2. Matched incorrectly
                a. Mr Gruff “I’m not too sure about this result. Something seems fishy with those lines.”
        iii. Match fingerprints
            1. Matched correctly
                a. Mr Gruff “I’m pretty confident in this match. Looks like [Buyer 2] was holding the weapon.”
                "Fingerprint analysis added to the journal."AddToJournal(The fingerprints on the knife match to [Buyer 2].)
            2. Matched incorrectly
                a. Mr Gruff “Wait…. Am I sure this is right? I better look at this again, after some coffee, oh wait there isn’t any. *sigh*”
    b. Gun 1
        i. On Examine

1. Mr Gruff “It’s the gun I found at the scene. Its one of the possible murder weapons.”
   “I should get some info on it and look for fingerprints”

ii. Match Gun info
   1. Matched Correctly
      a. Mr Gruff “That gun is definitely an M&P9 Shield. It’s a pretty common firearm. It fires a 9mm bullet.”
      "Gun information added to the journal."AddToJournal(One of the guns found at the scene is an M&P9 Shield it fires a 9mm round.)

   2. Matched incorrectly
      a. Mr Gruff “Am I sure this is right? Maybe I should take a second look.”

iii. Match bullets
   1. Matched Correctly
      a. Mr Gruff “The bullet found in the victim is certainly a 9mm. That’s the same type as the bullet the M&P9 fires. Looks like we have our murder weapon.”
      "Bullet analysis added to the journal."AddToJournal(The bullet found in the victim is a 9mm round which is fired by the M&P9 Shield.)

   2. Matched incorrectly
      a. Mr Gruff “Wait, this can’t be right. I better try again.”

iv. Match fingerprints
   1. Matched Correctly
      a. Mr Gruff ”Some fine analysis if I do say so myself. The fingerprint looks like it matches to [Buyer 1].”
      "Fingerprint analysis added to the journal."AddToJournal(The fingerprints on the M&P9 Shield match to [Buyer 1].)

   2. Matched incorrectly
      a. Mr Gruff “That can’t be right?! I better take another look at it.”

c. Examine Dumpster diving output
   i. If dumpster dive was not completed correctly, player should see the following message after all other analysis was done
      1. Mr Gruff “I have a feeling something is missing. I should go examine all the stuff we found in that dumpster”
   ii. Identify the gun is important

1. All the other items will re-use the examination text from the crime scene
    a. On finding Gun 2
        i. Mr Gruff “How did I miss this? I should look for fingerprints and information on this gun”

iii. Misc stuff on examine
1. Trash bag
    a. Mr Gruff “There isn’t anything important in these bags, we still have to keep this for evidence purposes”
2. Lunchbox
    a. Mr Gruff “Nothing of any evidential value is in this lunchbox. Have to keep the evidence though. Better safe than sorry”
3. Soda Can
    a. Mr Gruff “Looks like these cans are a lot older than our crime. Nothing useful to be learned from it”
4. Book
    a. Mr Gruff “This book is way too decayed to belong to anyone at the scene of our crime. Nothing useful to be learned from it”
5. Water Gun
    a. Mr Gruff “This H2O firing bad boy doesn’t look like it could hit a fly. Definitely not a murder weapon”

d. Gun 2
i. On Examine
1. Mr Gruff “It’s the gun I found in the dumpster. Its one of the possible murder weapons.”
“I should get some info on it and look for fingerprints”

ii. Match Gun info
1. Matched Correctly
    a. Mr Gruff “Looks like this is a classic 1911 model made by Remington, the Model 1911 R1.”
"Gun analysis added to the journal."AddToJournal(One of the guns found at the scene is a Remington 1911 R1. It fires .45 ACP rounds.)

2. Matched incorrectly
    a. Mr Gruff “Wait this is a what?? That can’t be right. I need some coffee. Oh wait, this is a lab there is no food or drink allowed in here.”

iii. Match bullets
1. Matched Correctly

a. Mr Gruff “That sure looks like a .45 ACP round. The same kind of round that's fired by the 1911 R1.”
"Bullet analysis added to the journal."AddToJournal(The bullet found in [Buyer 1] is .45 ACP, the same kind of bullet fired by the 1911 R1.)

2. Matched incorrectly
    a. Mr Gruff “Am I sure? That doesn’t look right. I better take a second look.”

iv. Match fingerprints
1. Matched Correctly
    a. Mr Gruff “I’ve never seen loops that match so perfectly before. The bodyguard was definitely holding this weapon and probably fired it too.”
    "Fingerprint analysis added to the journal."AddToJournal(The fingerprints on the 1911 r1 match to [Bodyguard].)”

2. Matched incorrectly
    a. Mr Gruff “Wait are these prints really a match? I better take another look at them.”

e. Crowbar
i. On Examine
1. Mr Gruff “It’s the crowbar I found at the scene. Its one of the possible murder weapons.”
“It could have been used on the victim, I should examine it for fingerprints”

ii. Match Fingerprints
1. Matched Correctly
    a. Mr Gruff “These fingerprints match to the victim, no way it was used in his own murder”
    "Crowbar fingerprint analysis added to the journal."AddToJournal(The fingerprints on the crowbar match to the Seller, it was most likely not used in the murder.)
2. Matched Incorrectly
    a. Mr Gruff “Wait are these prints really a match? I better take another look at them.”

f. Examine corpse
i. Identify cause of death
1. Matched Correctly

a. Mr Gruff “That makes sense. None of the other wounds are serious enough or in the right spots to kill a person. It was definitely the gunshot that killed him”
"Cause of death of the victim added to the journal."AddToJournal(The victim was killed by a gunshot to the chest.)

2. Matched incorrectly
    a. Mr Gruff “I’m not sure that that was the cause of death. I better think about this some more.”

ii. 3 Injuries on body
1. Knife wound
    a. Mr Gruff “This is clearly a knife wound to the arm. It’s not very deep and hasn’t cut any major vein or artery.”
"Knife wound analysis added to the journal."AddToJournal(The knife wound on the victim is shallow and did not hit any major arteries.)

2. Gunshot
    a. Mr Gruff “That’s a nasty gunshot wound. Deep in the chest with the bullet still inside. This is a very serious wound.”
"Gunshot wound analysis added to the journal."AddToJournal(The gunshot wound on the victim was deep and serious enough to cause death.)

3. Back of head impact
    a. Mr Gruff “That’s a pretty nasty hit to the back of the head. Definitely enough to rattle the brain, but none of the scans done have shown any major brain damage.”
"Head wound analysis added to the journal."AddToJournal(The head wound on the victim was serious, but no major brain damage was found.)

Artistic Style Outline

The artistic style for the game follows a realistic style approach that reflects a close resemblance to the actual items and tools that one would find in the real world. To accomplish the semblance of photorealism while maintaining an efficient runtime environment, low-poly models are combined with high-poly baked maps to preserve as much detail as possible. This combination of simplistic model design with high quality textures allows for the creation of realistic environments that aid in replicating the actual feel of a true crime investigation.

System Breakdown

Mini-Games

Matching Game

Dumpster Diving

The dumpster dive minigame is near the beginning of the game, during the crime scene investigation. The premise is that a certain piece of evidence is likely inside the dumpster, due to blood markings around said dumpster, and the player needs to find the evidence inside.

Figure 1: Player's view of dumpster dive minigame

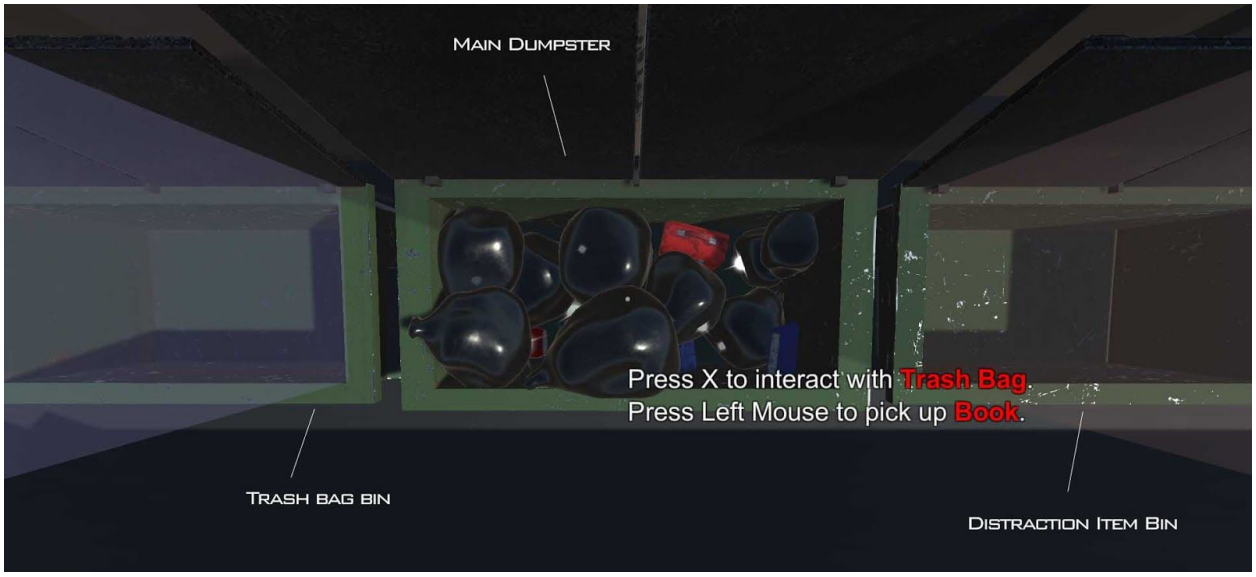


Figure 2: Points of interest in game

The view of the minigame consists of a birds-eye view of the dumpster, as well as two bins, one on either side. The left bin is for trash bag collection, and the right bin is for storing distraction items.

Item A: black trash bag

Item B: distraction items (lunch box, ripped up clothing or books, etc.)

Item C: evidence - firearm

Figure 3: Items found in dumpster

When the player is dumpster diving, they can find three different categories of items: trash bags, distraction items, and firearms. Trash bags are self-explanatory, they're simply just trash bags thrown into the dumpster. Distraction items are items meant to pose as possible evidence that the player is looking for. They can be a variety of different items one would often find in a dumpster. The evidence is the item the player is searching for.

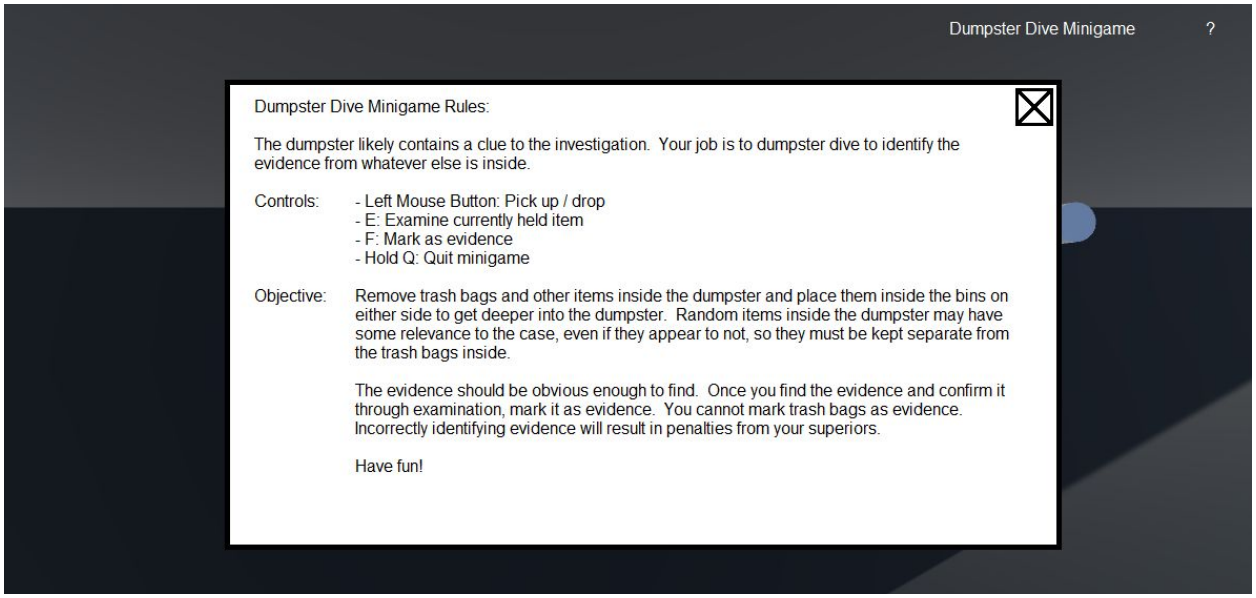


Figure 4: Tutorial panel

When the user starts the minigame, the game will bring up the tutorial panel, describing inputs and instructions for the user. Keeping the instructions inside this panel keeps the screen from being filled with text while the user plays the minigame, and they can easily open the panel at any time during the minigame by clicking the question mark button in the top right of the screen if they need a reminder.

Figure 5: Warning label displayed when illegal action is made

After reading the tutorial panel, the player can begin the minigame. Each bin will be properly marked with either a sign or some sort of detailing in the game assets - TBD. The player will begin moving trash bags into the trash bag bin and distraction items into the distraction item bin.

Key mechanics:

- Only one object can be held at a time, and the player must place the object into a bin.
    - If the player tries to place an object anywhere to the left of the dumpster, it should be read as placing the object into the left dumpster, and vice versa for the right dumpster.
    - Objects can be placed back inside the dumpster.
    - The evidence can be placed in the distraction item bin.
- If the player tries to place an item in the incorrect bin - ie. trash bag in distraction bin - the item should remain held by the player's cursor and a red warning message should display above the dumpster informing them they made an illegal action.
- Players pick up objects with the Left Mouse Button and drop objects with the Left Mouse Button.
- While holding an object, the player can perform the following additional actions:
    - Press E to display a short description of what they are holding.
    - Press F to mark as evidence.
- Objects put into the trash bin or distraction item bin can be removed from the bin in the same way as they are removed from the dumpster
- Marking evidence:
    - Trash bags cannot be marked as evidence (the F command should be disabled).
    - Marking a distraction item as evidence should display a red warning message above the dumpster informing the player they incorrectly marked evidence
    - Correctly marking the evidence will end the minigame (possibly plan an audio queue followed by panning the camera back into first person view).
    - If the evidence is picked up and put into the distraction item bin without marking it, the player will have to later return to the distraction item bin by re-entering the minigame, remove the evidence, and mark it.
- This minigame must be completed to progress the narrative.
- If the minigame is closed without finding the evidence (without completing the minigame), all objects in the dumpster and bins should persist for when the player returns to the minigame to finish it.

Upon ending the minigame, the player should receive the following dialogue prompts (rough ideas at the moment):

- The dumpster evidence has been found, sealed in a paper bag and stored with the rest of the physical evidence for the case
- The bin of distraction items are marked and will be brought to evidence examination at the lab to be done by someone else

The player should also get a journal update for the first dialogue prompt.

Testimony

Photographing the Scene

Photography Minigame:

The photography minigame is the first minigame played in the game, and it is meant to provide the player with a chance to show their skills at identifying proper camera angles and photography locations when initially documenting a crime scene.

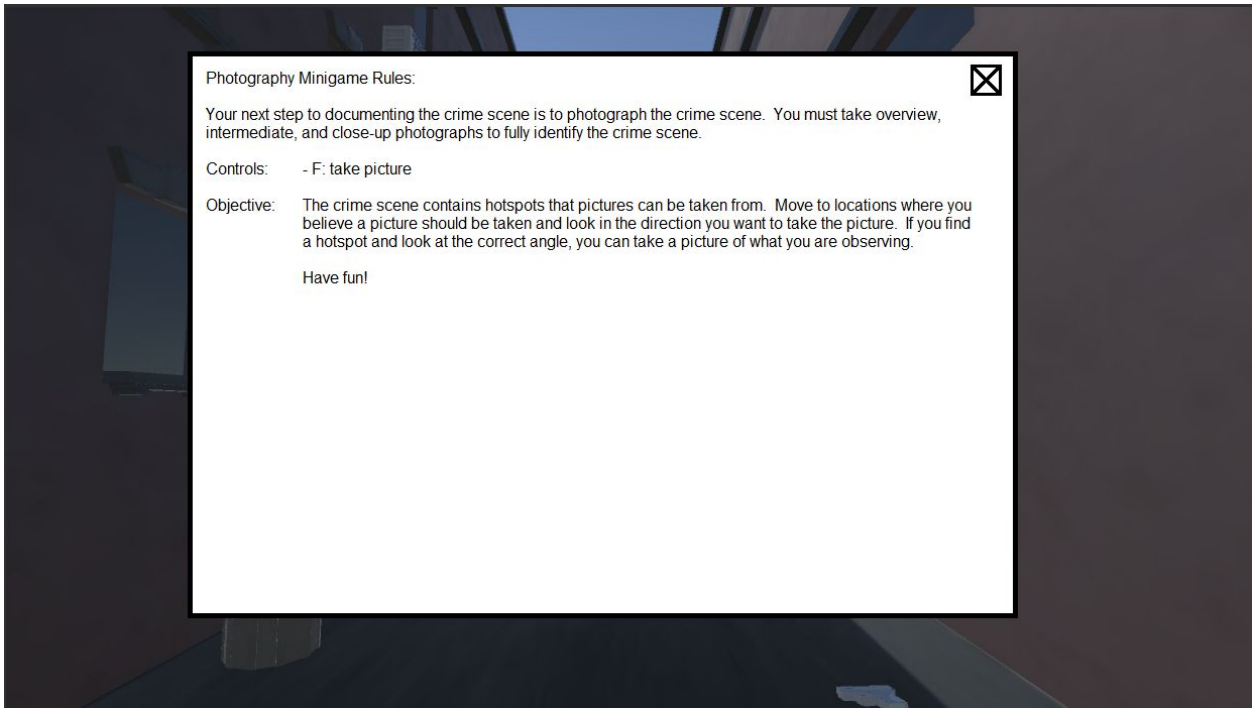


Figure 1: Example of tutorial window

The minigame should trigger shortly after arriving at the crime scene, after different pieces of evidence have been marked with numbered evidence cards. The player should receive some sort of queue - audio, visual, or both - to indicate that the minigame has begun, and a short tutorial should be provided.

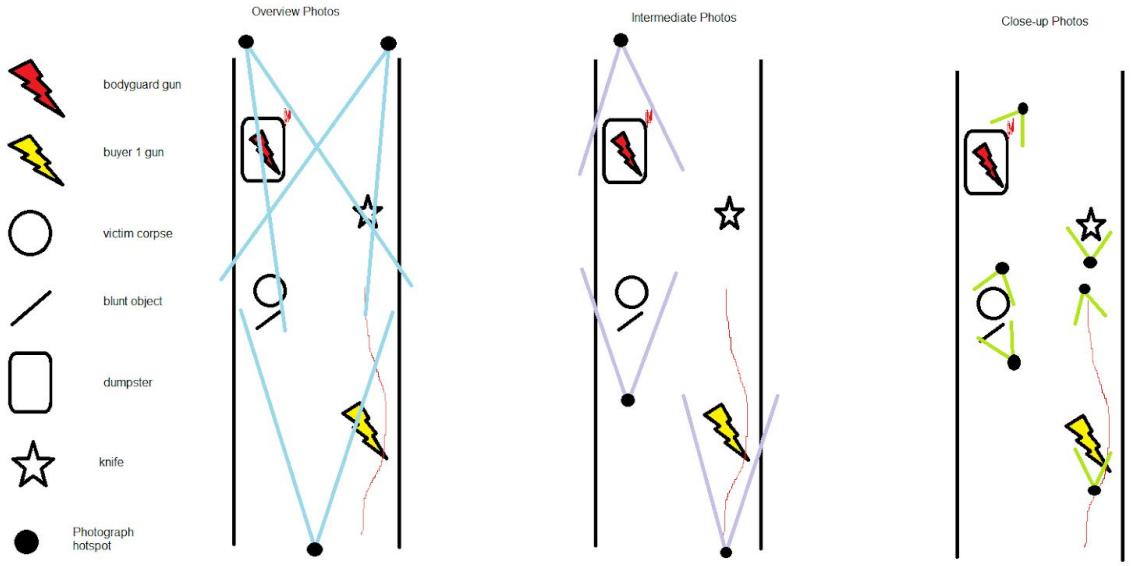


Figure 2: Locations of photograph hotspots and approximate angles

Key mechanics:

- There are a total of 12 photographs that need to be taken: 3 overview photographs, 3 intermediate photographs, and 6 close-up photographs.
- Hotspots and angles
    - The map should contain invisible hotspots at photograph locations. Players must identify and move to these locations based on their knowledge.
    - Each photograph should be taken at a specific angle. Based on difficulty of programming, these angles can either be preset or freeform to the player's choice
        - If the angles are preset, the player should be able to take a photograph once they enter the hotspot. The player's angle will be automatically moved to look in the pre-defined direction of the photograph, and the photograph will be taken.
        - If the angles are freeform, the player will need to both stand in the hotspot AND face an angle similar to the required photograph angle before they can take a photograph.
        - EXAMPLE: in a preset angle situation, the player can stand in a photograph hotspot while looking the opposite direction that the picture should be taken at and still have the option to take a picture. Upon pressing the "Take Picture" button (F), the player will automatically face

the angle of the picture and the picture will be taken. In a freeform angle situation, the player can stand in a photograph hotspot while looking the opposite direction of the picture to be taken, but the “Take Picture” option will not appear until they turn around and face a similar angle of the picture. Once they do this, the picture can be taken.

- All hotspots and angles should be predetermined and match the diagram above.
- Despite there being three different types of photographs with different angles, the pictures can be taken in any order.
- Due to the large number of pictures taken in this minigame, a hint system should be incorporated if the player takes too long to complete the game (likely more than 2 minutes)
    - If the player spends more than 2 minutes to complete the minigame, the photograph hotspots should have some sort of particle effect or highlight effect to show the player where they need to go.
- After a photograph is taken, it should be included in the journal. The journal should sort photographs into the three categories - overview, intermediate, and close-up.
- The player should receive some sort of notification once they have taken all 12 pictures.

Figure 3: UI popup for taking a picture

Art Asset Pipeline Breakdown

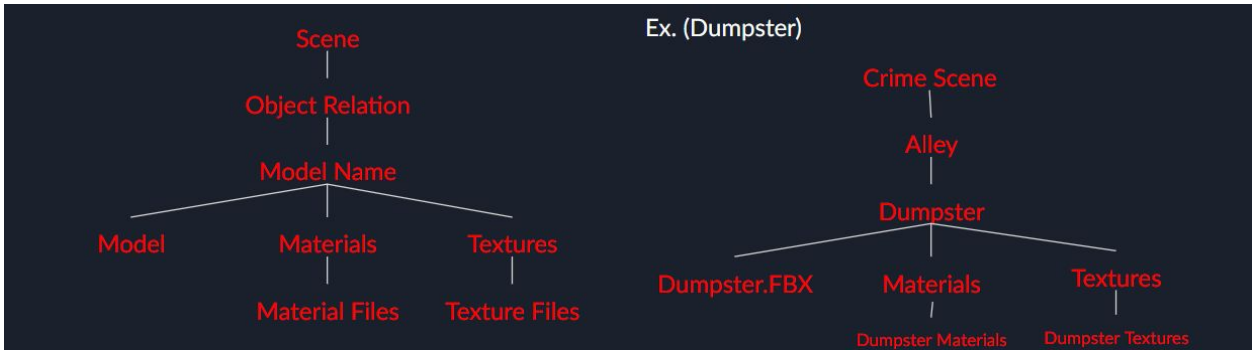
Assets for this game are completed through a four phase process:

Phase 1 -
Collection of reference images and creation of concept art in Gimp. Reference images are collected primarily from Google images and Sketchfab in order to account for real world and digital model scale and details. After collecting and researching data on each model, location, environment or person, they are packaged together in Gimp for each respective item. Then utilizing a mouse and wacom Intuos drawing tablet, basic object edge flow and shading is copied and edited in order to obtain the correct visual aspect division. This aspect image will be used to help determine scale, detail, and color during phase 2 and 3.

Phase 2 -
Low-poly models are created in Blender based on concept art and reference images. The modeling process begins with the creation of a virtual reference studio. The virtual reference studio is a combination of a side, orthographic, and front facing image of the object or person being modelled. To retain a realistic level of detail while developing for a low-poly final export, a high-poly version is initially made in order to be utilized as a normal map bake texture for the low-poly model. This allows the high level of detail to be baked into the vertex information of the low-poly model resulting in much more realistic model detail without the overhead performance hit of a high-poly model. Once the normal maps are baked out from the high-poly model version, the high-poly model is manually retopologized in order to obtain a model with a similar likeness to the high-poly model version, but with a significantly smaller vertex count. Before progressing to the FBX export phase, it is important to recalculate each face normal and check for non-manifold edges or faces that may present a problem later in importing into Unity and Substance Painter.

Phase 3 -
Low-poly models are exported as FBX models from Blender and imported into Substance Painter for map baking and texturing. The FBX model export is handled by a custom FBX script, created by Bradley Kemp, that is optimized with presets for both static and dynamic animated meshes for the best performance and compatibility in Unity and Substance Painter. After being exported in a .FBX file from Blender, the model is imported into Substance Painter utilizing the Unity startup preset and OpenGL shading preset. A combination of custom brushes and materials, smart materials, and alpha textures result in unique texture sets for each model that are then exported in 8 bit png files at 1k texture resolution scale.

Phase 4 -
Final FBX models and textures are uploaded to a team drive in Google Drive as well as pushed to the main Unity game file in GitHub. Models, materials, and textures are divided into file folders based on the following hierarchy tree:



Asset Breakdown

Concept Art -

Crime Scene:

Lab Scene:

3d Models -

Weapons:

- Crowbar

- Knife

- M&P 9 Shield

- Model 1911 R1

Characters:

- Dead Body (Seller)

- Police Officer

- Prosecutor

- Courtroom Background People
    - Male 1

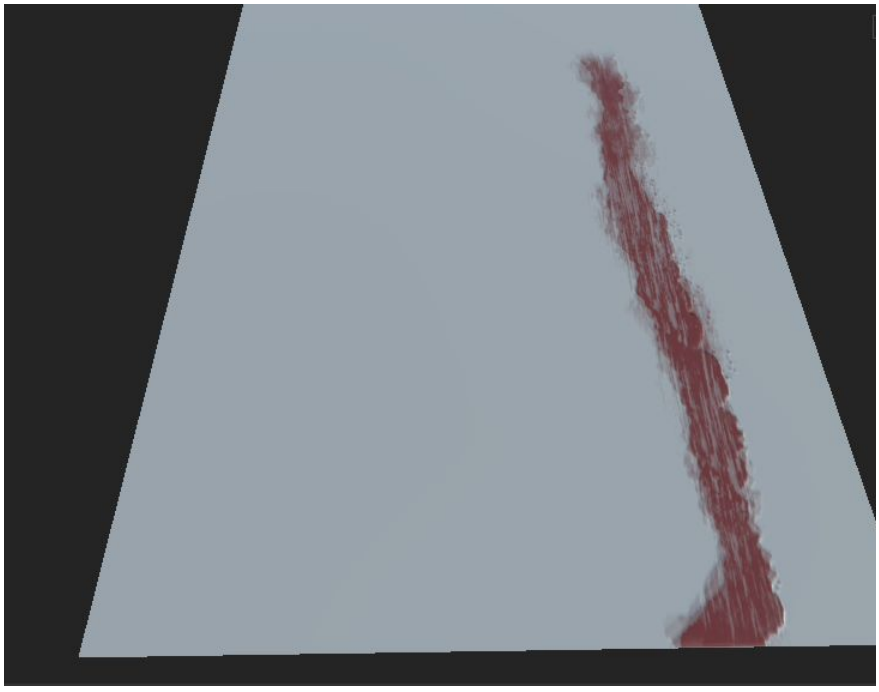
- Female 1

Crime Scene:

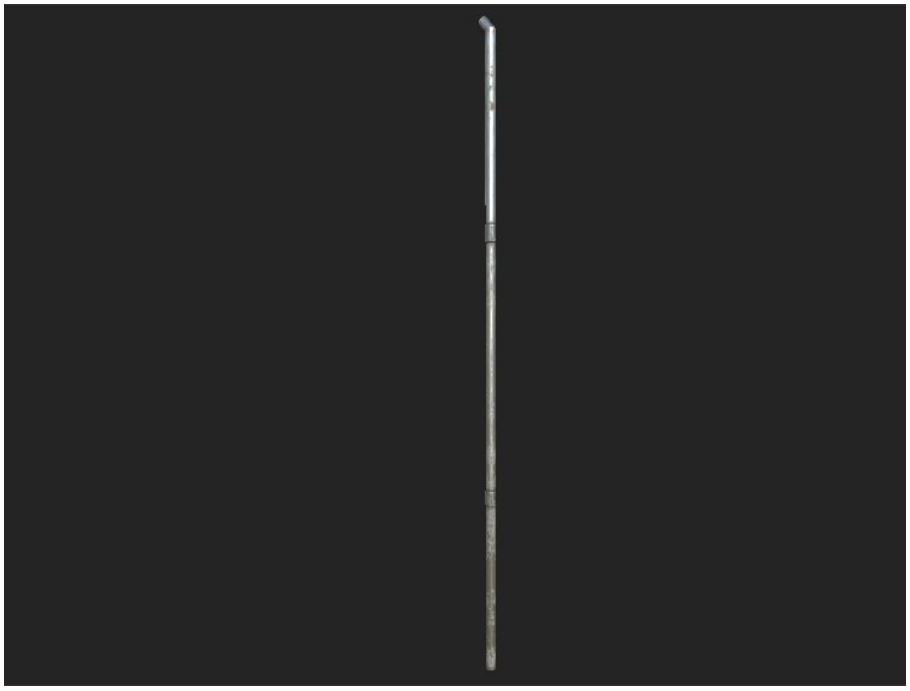
- AC Unit

- Alleyway

- Alleyway Ground Blood



- Alleyway Wall Pipe

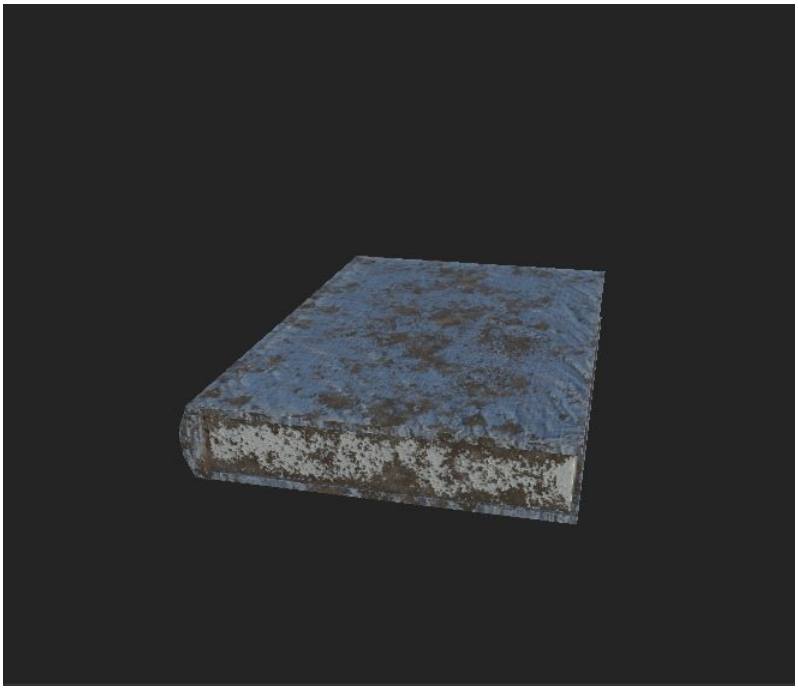


- Body Bag

- Dumpster (lid closed)

- Dumpster (lid opened)

- Dumpster Mini-game Assets
    - Book



    - Lunchbox

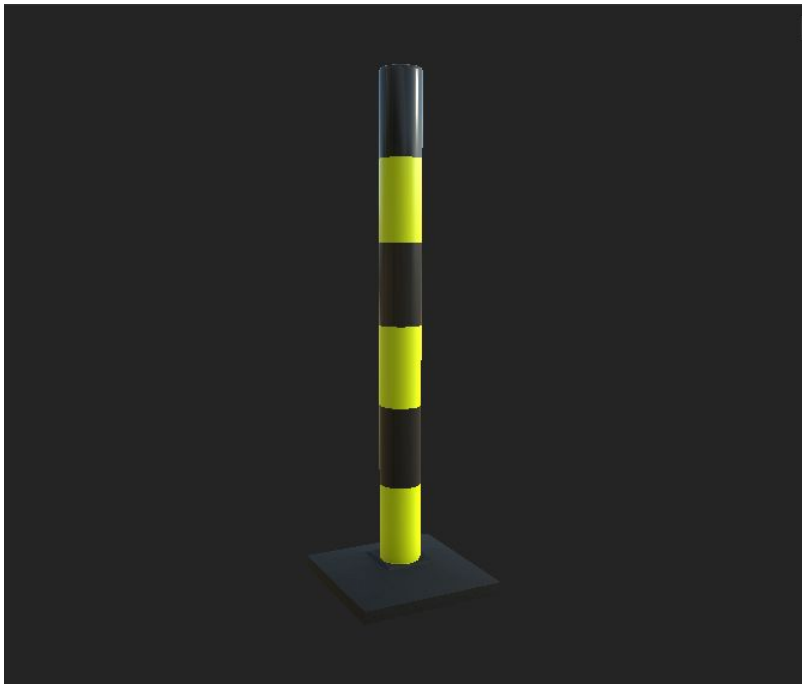
- Soda can

- Trash bag

- Water gun

- Evidence Marker

- Police Pylon

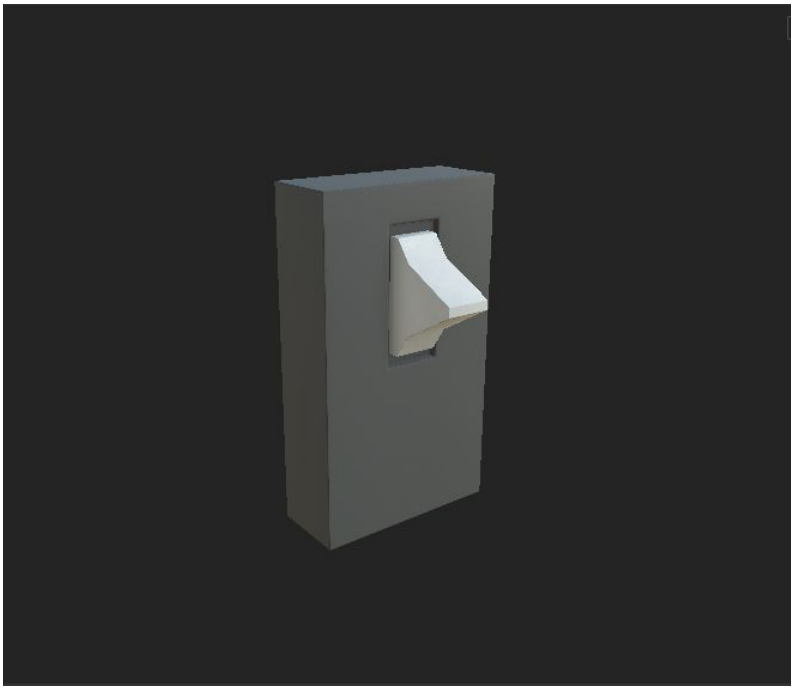


- Trash Can

- Weapons* (see above)

Lab Scene:

- Lab Space
    - Light Switch



    - Sliding Doors
        i. Analysis Door

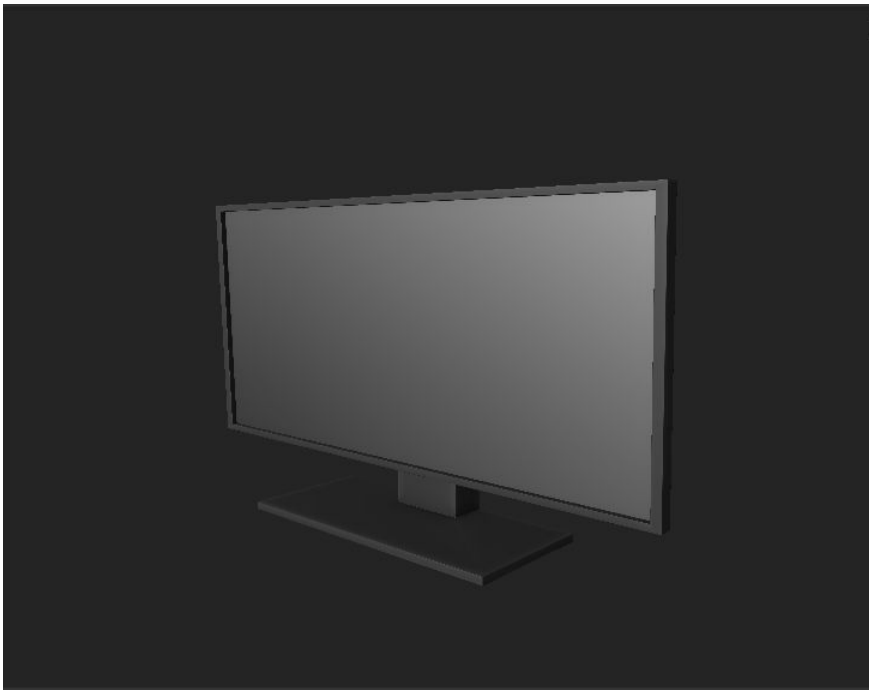
ii. Autopsy Door

iii. Between Door

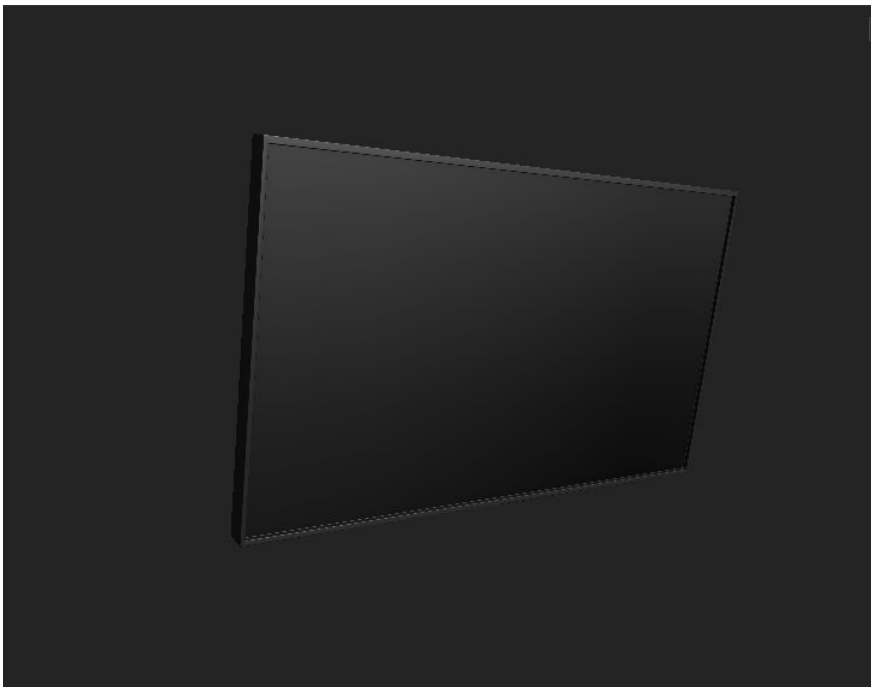
iv. Storage Door

- Analysis Room
  i. Desktop

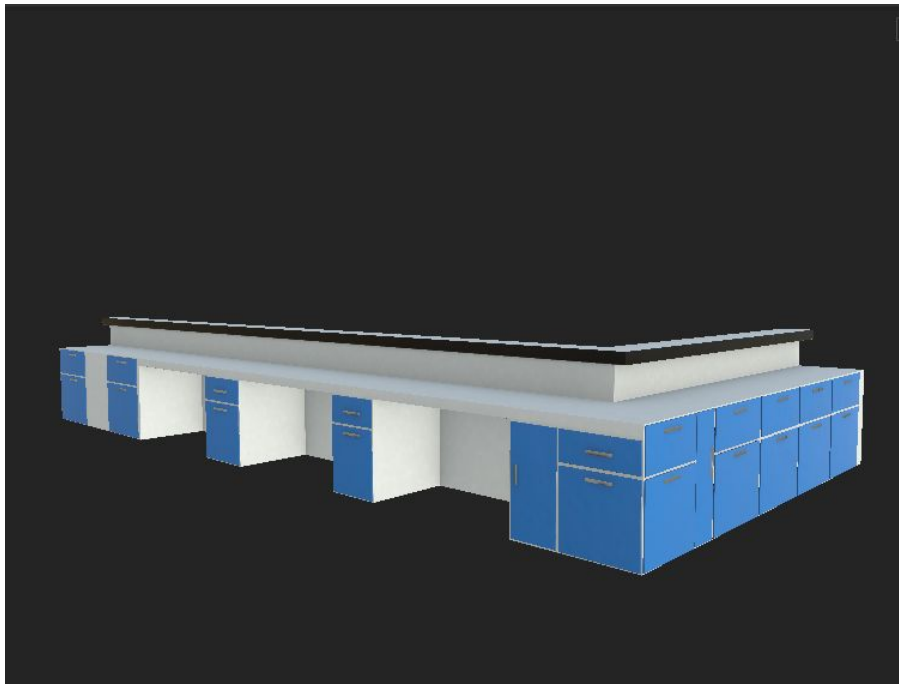
ii. PC Monitor



iii. TV Screen



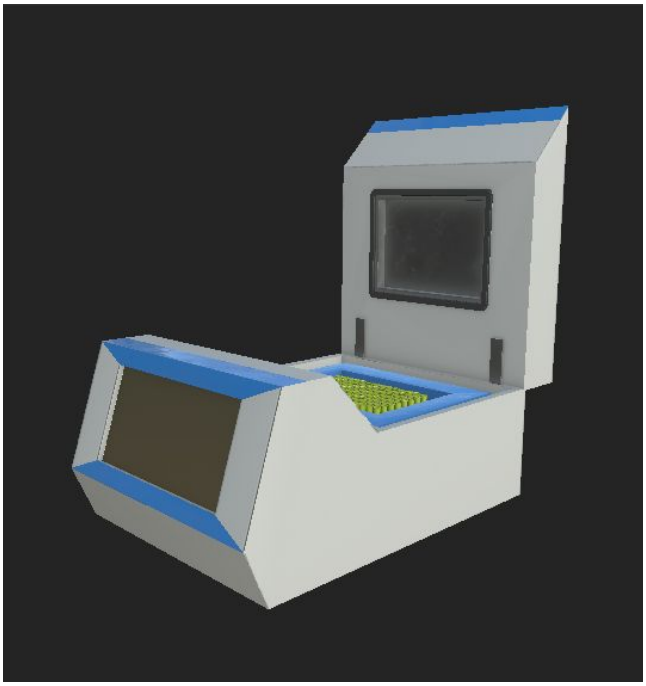
iv. Blood Analysis Table



1. Magnifier

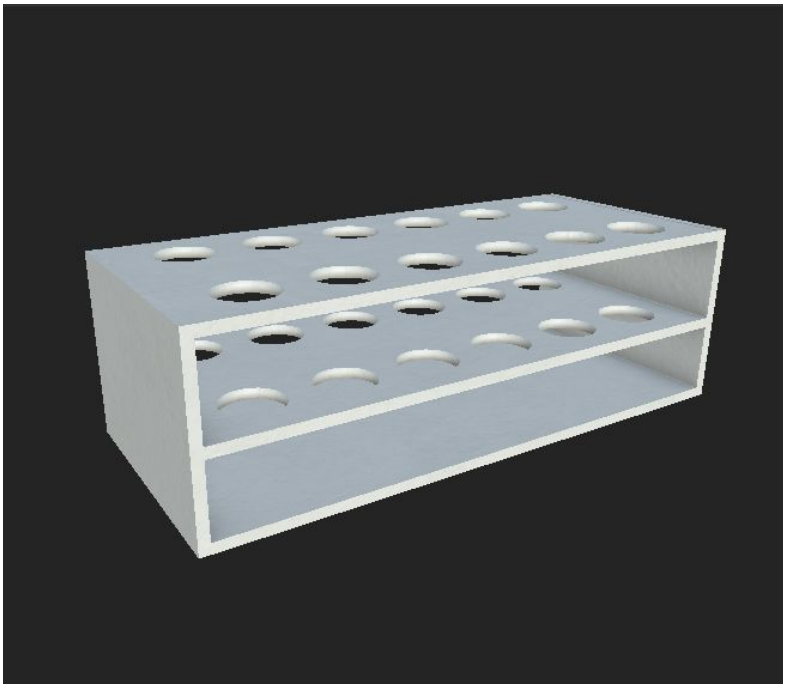
2. Microscope

3. Thermal Cycler

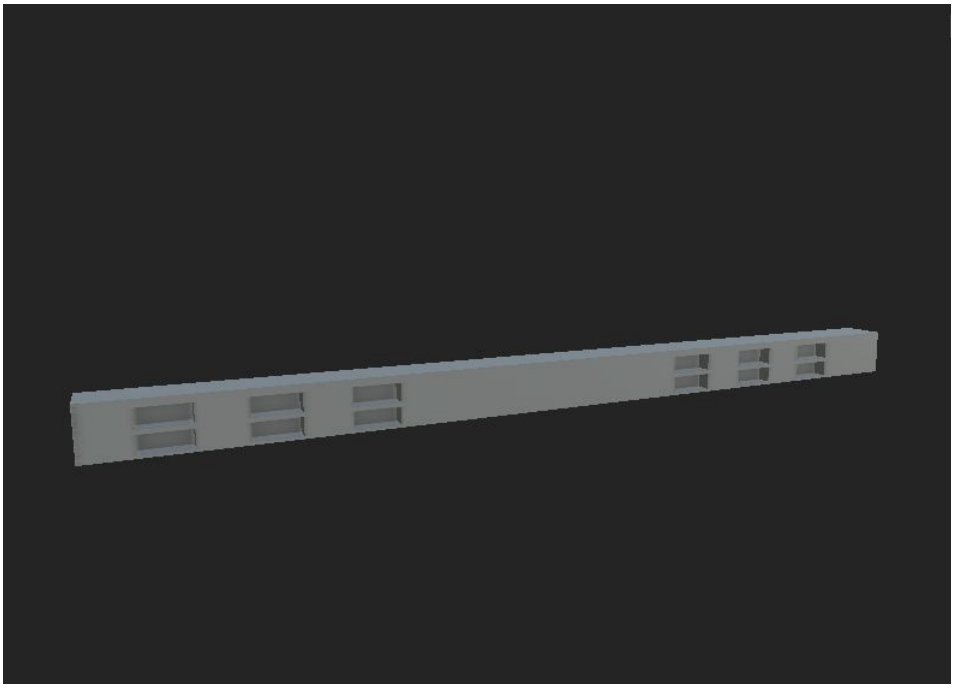


4. Vial

5. Vial Holder

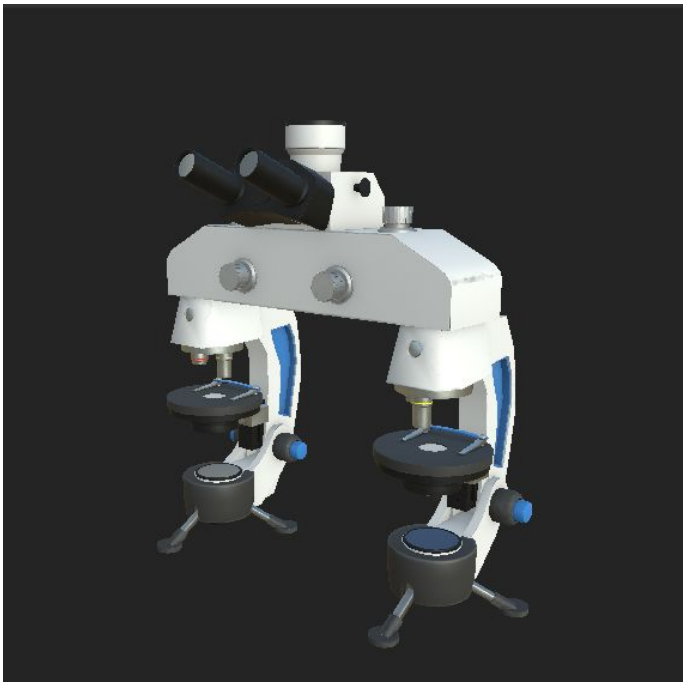


v. Gun Analysis Table

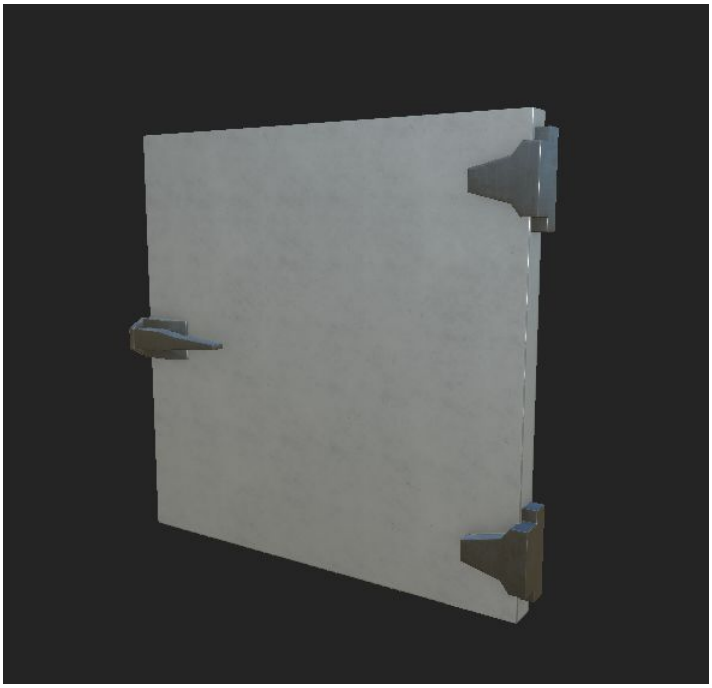


1. Borescope

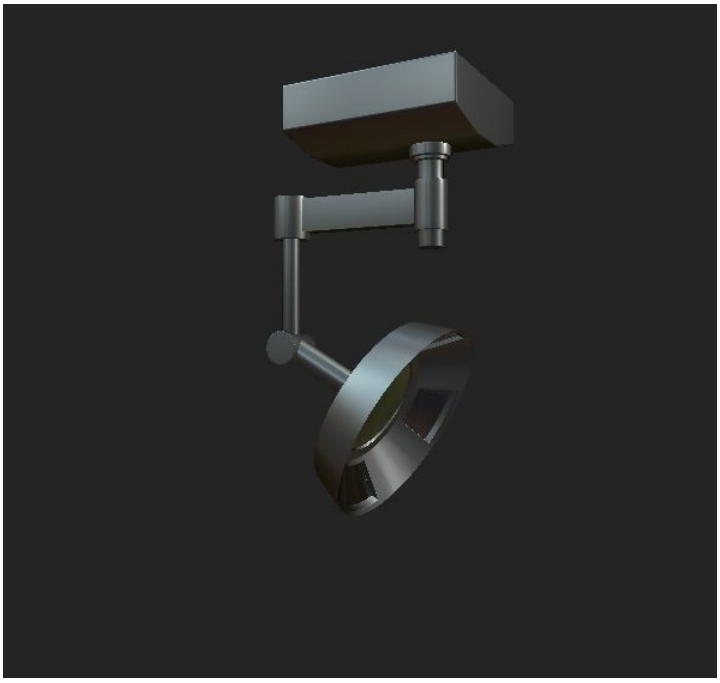
2. Comparison Microscope



- Autopsy Room
    i. Autopsy Storage Door

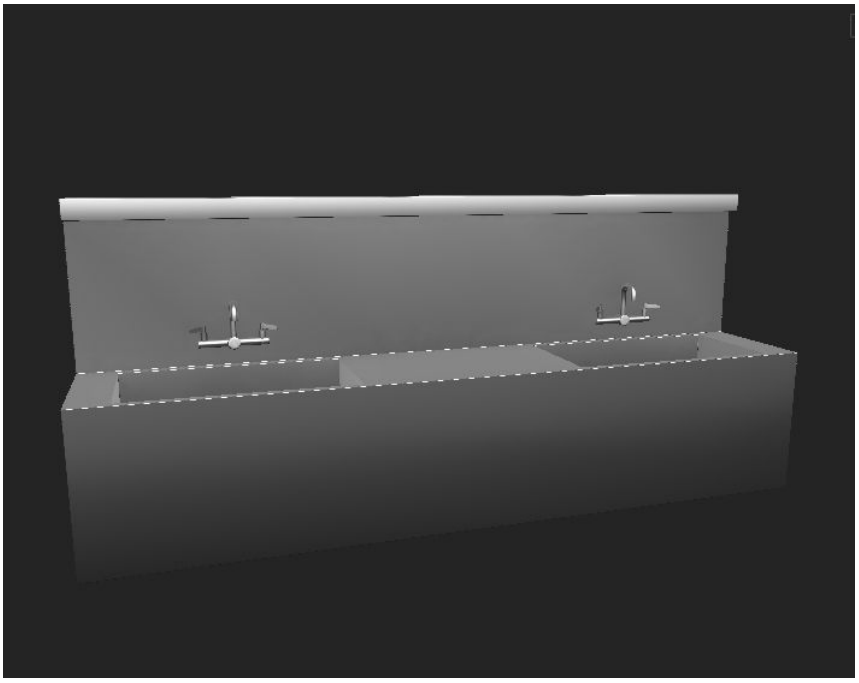


ii. Exam Ceiling Light



iii. Exam Table

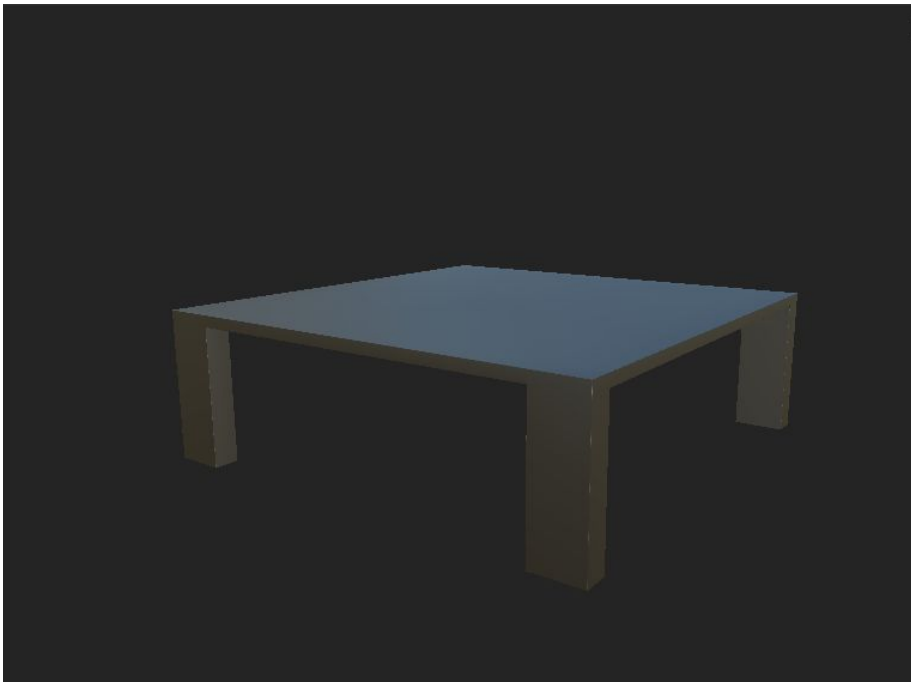
iv. Wash Basin



v. Dead Body Seller** (see above)

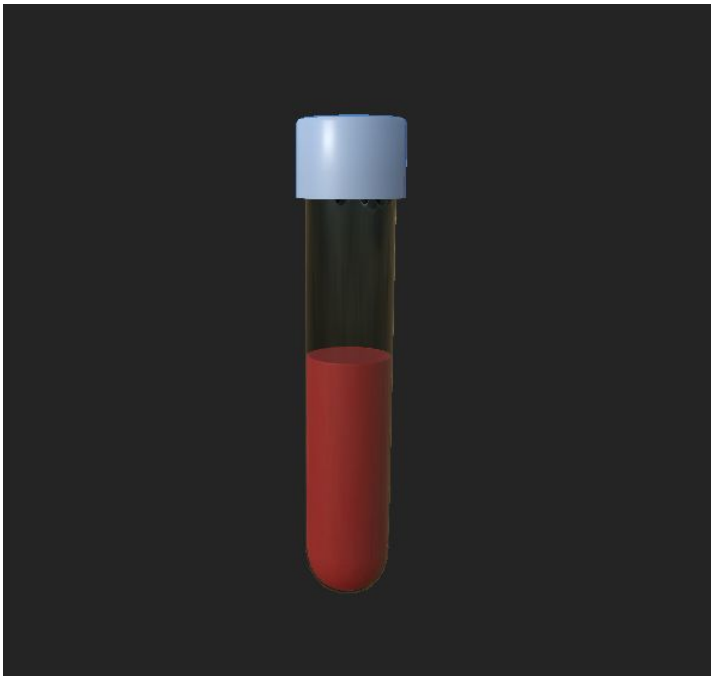
- Storage Room
  i. Storage Rack

ii. Storage Table



iii. Evidence Box

iv. Blood Sample



v. Posters

1. Chem Poster

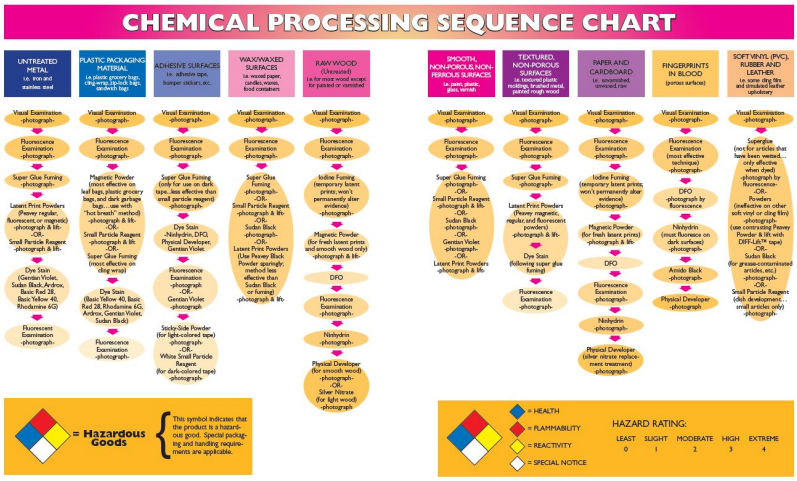


Image source:
https://lynnpeavey.com/product/chemical-sequence-chart/

2. Methods Poster

Overview of Chemical Tools and Methods

It's essential that technicians understand the sequence of development products since developmental reactions will change the chemical nature of the fingerprint and it might become impossible to develop.

Method	Why it's useful to you
Powders	Powders adhere to water and fatty deposits and generally work better with newer fingerprints. Choose a powder that contrasts with the background.
Fluorescent Powders	Fluorescent powders are especially useful on patterned backgrounds. An ultraviolet or forensic light source is required.
Small Particle Reagent	It adheres to the fatty components of skin secretions The reaction product is very fragile and should be photographed immediately.
Cyanoacrylate (glue fuming)	This method produces excellent results on Styrofoam and plastic bags. It reacts with water to form a hard, whitish deposit that can be trusted with powders.
Adhesive Side Powder	Adhesive side powder attaches itself to print impressions on the adhesive side of tapes. It produces excellent results on light-colored or transparent tapes including duct tapes, masking tapes, plastic surgical tape, foam tape, clear and reinforced packing tapes and labels.

Image source: https://www.sirchie.com/media/resourcecenter/item/0/8/08_latent_print_dev.pdf

3. Surfaces Poster

Guide to Surfaces

Surface	Treatment Method
Smooth, non-porous: glass, hard plastic mouldings, surfaces treated with paint or varnish	Powders, iodine, small particle reagent, cyanoacrylate/ fluorescent dyes
Rough, non-porous: rough, textured surfaces, grained plastic mouldings	Small particle reagent, cyanoacrylate/fluorescent dyes
Paper & cardboard: paper & cardboard that hasn't been waxed or plastic-coated.	Iodine, ninhydrin, DFO, silver nitrate, or physical developer. Powders won't work with older fingerprints
Plastic packaging media: Polyethylene, polypropylene, cellulose acetate, and laminated paper surfaces	Iodine, small particle reagent, cyanoacrylate/fluorescent dyes, and powders
Soft vinyl (PVC), rubber and leather: simulated leather and cling film	Iodine, small particle reagent, cyanoacrylate, and powders
Untreated metal: untreated, bare metal surfaces; metal surfaces that haven't been painted or lacquered.	Small particle reagent, powders, cyanoacrylate / fluorescent dyes and powders
Unfinished wood: wood surfaces that haven't been painted or treated.	Ninhydrin. You can use powders on smooth wood and silver nitrate or physical developer on light woods.
Wax and waxed surfaces: items made of wax, such as candles, wax-coated paper, cardboard, wood surfaces	Nonmetallic powders, cyanoacrylate / fluorescent dyes
Adhesive-coated surfaces: tapes and similar surfaces that are not likely to dissolve in water	Adhesive-side powders

Image Source: https://www.sirchie.com/media/resourcecenter/item/0/8/08_latent_print_dev.pdf

vi. Weapons* (see above)

Court Scene:

- Courtroom
    - Bystander bench

    - Court Chair

- Court Microphone

- Standard Court Railing

- Ornate Court Railing

- Gavel

- Gavel Pad

- Judge Podium

- Court Flag

- Judge Chair

- Prosecutor** (see above)
- Courtroom Background People** (see above)

Sound Assets

Crime Scene

- Footsteps / walking

- Camera click / flash
- Placing marker
- Rustling sound played when examining body's pocket
- Scribbling / writing sound played during journal entry
- Clicking sound played when moving on to next script line
- Pick up trash bag / plastic object
- Drop trash bag / plastic object
- Pick up metallic object
- Drop metallic object
- If we want semi-voice acting:
    - Grunt sound played when officer starts talking
    - Hmm sound played when examining an object

Lab

- Activation of each station
    - Gun info station
    - Bullet match station
    - Blood match station
    - Fingerprint station
- Body Examination noise
- Completion music riffs
    - Successful
    - Unsuccessful

Court Room

- Uses other UI sound effects from other sections