Sample from
*Medical Learning Activities II*

Curriculum and Instructional Materials Center
http://www.okcimc.com
Teacher’s Information

Crime Scene Investigation

While this activity is designed to be completed in 10 days, it can easily be expanded by allowing the students more time in both the practice and real crime scenes.

This module includes a crime scene simulation that deals with the death of a person. If this is too traumatic for you or your students, you can still use the same concepts and do something scaled down. Some possibilities include the abduction of the class mice or the disappearance of the school mascot. The procedures are the same.

The video, *Lifting Latent Prints*, listed below is not required, but is very helpful, especially if you have never worked with fingerprints and fingerprinting.

► *Lifting Latent Prints* from www.sirchie.com

The materials list below is a combination of the daily materials lists, listed alphabetically. The materials needed for the crime scenes are really up to you. You can choose to go all out with an elaborate scene or keep it simple and provide fewer pieces of evidence. See the lists for each day’s activities for more detailed information.

Resource List—Materials and Equipment Needed

► bucket of water
► camera (digital or film, one per group or could be shared)
► cardboard box
► clipboards (at least one per group)
► compass (at least one per group)
► computer and data projector to show PowerPoint activity
► copy machine
► crime scene body or tape a body on the floor (see *Before Class: The Crime Scene* on page 16 for different options available)
► envelopes, both large and small
► evidence for the crime scene/scenes (see the *Before Class* sections of each activity to develop your own list)
► fingerprinting kit or magnetic powder, magnetic brush, adhesive lifting tape
  ◄ www.sirchie.com is a good site for buying a fingerprinting kit
folder or large envelop for each group to keep their work together
footprint friendly outdoor area
gloves for every student
graph paper or a sketching kit for each group
  ▪ www.sirchie.com is a good site for buying a sketching kit
items or surfaces, such as white boards or a desktop, that will allow for good fingerprints
magnifying glasses (at least one for each group)
measuring cups
note pad for each group (paper can also be used)
note cards—any size; lined or unlined for making tent cards (you will need as many tent cards as you have pieces of evidence; use the tent cards made in Activity 1; tent cards can be shared by the groups)
note cards to use for fingerprint backing cards
paper
paper for bindles
paper towels
pen/pencils
permanent markers, such as Sharpies (at least one for each group)
plaster of paris
plastic bags with a zipper closing, 1-quart size
poster board (one per group)
room or classroom other than your own
rulers (one per group)
Teacher’s Information (continued)

Crime Scene Investigation

► scissors (at least one per group)
► shoes (4 pairs to make shoeprint transparencies)
► tape (one per group)
► tape measures (one for each group)
► tent cards (be sure you have enough to mark all your evidence)
► terminology review sheets
► transparency sheets (at least 4 pieces per group)
► tweezers (one per group)
► water and bucket

Helpful Books


Websites and other Resources

The information found in this extensive section is huge. Please check through the information because you will find numerous information to share with interested students. Forensic areas not included in the activities are listed in these resources. If you have students interested in more information, you will be able to find information to share with them. Explore all the resources before beginning the modules.

For a complete list of forensic and criminal investigation websites and resources, see the list that begins on page 49. As is true of all web links, please verify that the link is still available and suitable for your students. The web changes rapidly and what was an excellent link today may be totally unsuitable tomorrow.
Permission To Do A Crime Scene

Before you begin, you will need to contact administrators in order to get permission to do this project. Below is an example of a letter that was sent to the administrators at Putnam City High School. When writing your permission letter, be sure to modify it to match the activities your students will be doing at their crime scene.

To Whom It May Concern:

My name is _______________, and I teach Health Occupations. I am asking for permission to do a forensic (mock) investigation in which the class will be working a crime scene. The student’s responsibilities will be to collect evidence. Evidence will include objects such as a bottle used to collect fingerprints, DNA from a toothpick. They will also test for blood at the crime site.

The blood will be obtained from the Oklahoma Blood Institute and will be clean and free of disease. A forensic chemist from the Oklahoma City Police Department and I will supervise the students. All students will be wearing latex gloves as a safety precaution, and everything will be done in a controlled environment.

The reason for this request is simple. Integrating real-life with the classroom. Students will solve a realistic crime with realistic evidence. They will learn safety at the scene and develop critical thinking skills. They will have to apply English, algebra, science, geometry, writing skills, art, and photography to accomplish the task. If this is successful, students will enroll in more science classes and chose a career path. They will also learn that there are many ways to solve a crime meaning there are also many ways to get caught. Hopefully they will be deterred from committing crimes in the future.

The crime scenario is as follows:

A homicide has taken place. A man was shot and found near school property. Freshman students will work a crime scene where blood is present. They will collect several pieces of evidence, determine if the blood is truly blood, compare fibers, take pictures of the crime scene, take notes, prepare final reports, sketch the scene, and narrow down the list of suspects until the evidence points to the perpetrator.

Thank you for your consideration.

Sincerely,
Teacher’s Information—Day 1

Materials needed for Day 1
- scissors
- terminology review sheets
- computer and data projector to show PowerPoint activity

Terminology Review Activity

**Before class:** Cut apart the words and definitions found on pages 29 – 35. Be sure to separate the term from the definition. *Hint: Laminate these words. They will last a lot longer that way.*

As students come into the room, give them a card—either a word or a definition. Have the students look at their word or definition. Tell them to find the student who has the word or definition that matches the one they have. When all, or most, students have found their match, have them stand together. Have each pair read the word and definition to the class. Lead a discussion of each word, deciding whether the word and definition are correctly matched. If not, have the students find the correct definition. Also, if time allows, let the students tell anything they know about the terms.

Terminology Worksheet/Test

Use the activity on pages 25 – 28 as a worksheet or as a terminology quiz.
**Teacher’s Information—Day 1 (continued)**

**Crime Scene Investigation**

**Showing the PowerPoint**

The filename of the PowerPoint is **Forensic Education Module.ppt**

To show the PowerPoint, click on the link in the bookmark list or follow the procedures you use to play other PowerPoint presentations.

The purpose of the PowerPoint presentation is

► to get students prepared for the activity
► to give students an idea about their role and responsibilities
► to give instruction on how to work a crime scene

**Before showing the PowerPoint it is a good idea to do the following**

► print the PowerPoint in handout form so that the students can take notes during the presentation
► invite someone from law enforcement (a forensic chemist, a homicide detective, or police officer) to give examples or further explanation during the presentation
► preview the PowerPoint before class to familiarize yourself with the information. You may need to call someone in order to get clarification.

**After you show the PowerPoint:**

► Divide the students in groups of four or five (four is preferable)
► Have them read over the roles of the crime scene team. Don’t allow them to pick their roles at this time. During Day 2, they will get a better idea of what will be required of each role.
► After students have read about each role, you may want to have the class discuss the material to ensure they are ready to move to Day 2. Carry on a dialog with students about the different roles by asking questions such as, “Why do you think you would might like to be a sketcher?” What might you not like about the job?

**Optional Activity**

Give the Terminology Worksheet as worksheet or a quiz. You can also save it to use as part of an final test.
The hands-on activities that will be completed during Day 2 are designed to give the students practice before they begin working on the final crime scene—a warmup for the real thing. You may choose to use simple practice activities or go all out and setup a practice crime scene. Students will not be solving this crime, it is specifically for sketching purposes. It will also give them a heads up on how and where to put the tent cards and how to package evidence.

If you want to setup a crime scene, or think you might want to complete additional crime scene activities, you will definitely want to buy the the book *Crime Scene Investigations*, by Pam Walker and Elaine Wood. This excellent resource includes 68 exciting lessons and lab activities, all with reproducible sheets. The activities challenge students to observe, think critically, conduct lab tests, document results, and try to meet the standard of proof needed to solve crimes. The crimes, ranging from check forgery to murder; include the use of fiber analysis, skeletal evidence, and fingerprinting techniques. 288 pages. ISBN # 0-87628-135-8, from www.amazon.com ($20.96) or from www.teachersource.com.

You will be setting up a crime scene for the Day 2 activities. If you have *Crime Scene Investigations*, you can complete Lesson 1-5: On the Scene instead of Activity 3. You will also use the Lesson 1-5 crime scene for the other Day 2 activities.

**Materials needed for Day 2 activities**

The materials you will need depend on the crime scenario you choose to use.

- a classroom other than your own
- graph paper for each group
- tape measures for each group
- compass (one per group)
- rulers (one per group)
- clipboards (one per group)
- evidence for the crime scene (see the Before Class section below to develop your own list)
Teacher’s Information—Day 2 (continued)

Crime Scene Investigation

Materials needed for Activity 1: Making/Placing Tent Cards
- note cards—any size; lined or unlined (your teacher will tell you how many)
- permanent marker, such as a Sharpie
- camera (film or digital, optional)

Materials needed for Activity 2: Sealing the Evidence
- a piece of paper
- a pen
- piece of tape
- tweezers
- gloves

Materials needed for Activity 3: Sketching a Crime Scene
- pencil
- graph paper
- tape measure
- ruler
- clipboard or book (to write on)
- compass

Before Class
► If possible, secure a room other than your own and set up the crime scene the day before the activity will be done.
► Chalk and tape a body shape on the floor or ask a friend or co-worker to be the victim and lie on the floor while you tape around him or her.
► Decide what to do about taking pictures. If you have a digital camera, have the students take and look at pictures of the practice scene. If you only have a film camera, developing pictures for two crime scene activities may be too expensive. For this practice activity, you may want to have the students pretend to take pictures with a filmless camera.
► Decide on realistic evidence to place in the crime scene. If you use scenario in the Activity 3, items such as a cell phone, lamp, chairs, pens, pencils, handheld computer or pda, and other items possibly found in an office. Personal items such as a watch, ring, car keys, and a baseball cap are also good choices. Items such as a paperweight or a trophy might be good murder weapons. A three-hole punch is also a good murder weapon because not only is it metal and heavy, but you can also have the dots trailing off in the direction of the fleeing suspect (towards the window or the door).

► Place a small item or two near the outline of the body.

► Near the entrance of the room or near a window, place objects that might have been dropped such as a baseball cap or glove.

► On a Post-it Note, a page from a date book or calendar, or a piece of paper, write “Have interesting new information. See you tonight. Bob” Then tear it into pieces. Scatter it near the masking-taped body.

► Scatter your other evidence throughout the room, possibly turning chairs and tables over. Make the crime scene a realistic mess caused by a struggle.

► To add to the drama, use the ketchup. Here are some suggestions that will add a little mystery to the case:
  
  Leave a footprint behind
  Make a puddle of it around the head
  Make drip marks from the struggle
  Put just a little bit of ketchup on the corner of the “murder weapon.”
  Take a few strands of hair out of your hairbrush. Attach a strand or two to the murder weapon, or leave a clump lying near the struggle.

► Place a yellow ribbon or a piece of crime scene tape across the door. Make sure it says, “Crime Scene: Do Not Enter”

► Decide which measuring system to use, metric or inch-pound.
During Class: Tent Cards and Bindles

To get students focused on the task at hand, start off by choosing two students to demonstrate making tent cards. Read about the making the tent cards. You should decide how many tent cards to make based on the evidence you have placed at the crime scene. Each piece of evidence at the scene needs a card. Have the students number the cards after making them. These will be used at another time, so don’t throw them away at the end of the hour. This activity should take no longer than 5–7 minutes.

Next, give each person in the class a sheet of paper. Have them read about making a paper bindle. Have each student make a paper bindle. Directions are on pages 11 – 12.

After tent cards and paper bindles have been made (Activities 1 and 2), lead the class into the crime scene. Explain that there has been a murder and they are going to sketch the crime scene. After spending a couple of minutes looking at the crime scene and allowing students to find the evidence, let the investigative teams pick up the materials and read the the Day 2 activities and get started. They should finish Activity 1, Making/Placing Tent Cards and Activity 2, Sealing the Evidence; Remind the students, “At a real crime scene, you would have to put on gloves to avoid contaminating the evidence.”

Have the tent card maker properly place the tent cards. If you have access to a digital camera, the students can practice taking the pictures. If you aren’t really taking pictures, have the students pretend to take the picture.

Discuss the following

► Did you work from the outside of the crime scene inward towards the body?
► Did you cover up any evidence while placing the tent cards?
► Did you miss any vital evidence?
► Did you touch the body?

During Class: Sketching

► Divide students into groups of three. Two will do the measuring and one will record the findings. Tell the students that there are sample sketches on pages 20-22.
► Have the students complete Activity 3, Sketching a Crime Scene.
► Remind students that the rough draft does not have to be perfect, but the measurements need to be precise.
If there is time left over . . .

► Ask volunteers to come forward and collect the evidence. Give them a pair of tweezers and a pair of gloves so that they can collect the pieces of evidence properly.

► Have them give the evidence to someone else so that they can seal it in the paper bindles with a piece of tape. Mention that there cannot be any spaces. A pencil lead should not be able to get through and penetrate the seal.

► The last ten minutes of class, have the students write notes over what they saw. One person in the group can write while all others give input. Remind them that they will not be able to visit the crime scene again.

► If there is any time remaining, have the students make a final draft of the crime scene.

This finished bindle was made from yellow paper so it could be seen. It shows what your finished bindle should look like.
Crime Scene Investigation

Teacher’s Information—Day 2 (continued)

4th fold

Tape all the way across

Be sure to tape all open edges

1st fold

2nd fold

3rd fold