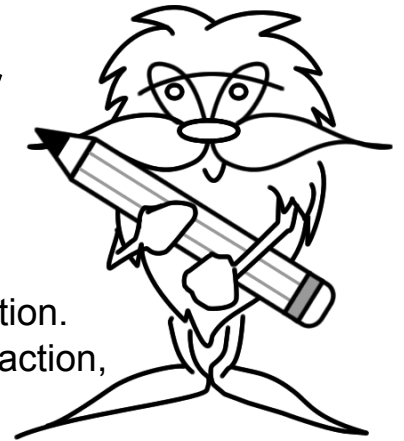


Name: \_\_\_\_\_

# Lorax Sequel Story Planner



Good stories have the following things in common:

1. Good stories must have a great **beginning**.
  - The opening sentence should grab the reader's attention.
  - It should be a powerful statement filled with mystery, action, suspense or humour.
2. Good stories must occur in a **setting** (in a specific place, situation and time)
  - Describe what this place looks like, feels like, smells like and sounds like.
3. Good stories must have interesting and well-developed **characters**.
  - Choose at least one character from the Lorax to be in your sequel.
  - Think about what your characters look like, what they like to do, what they are thinking or saying and what other characters think or say about them.
4. Good stories should have a **problem**.
  - Describe a situation that happens in your story that must be solved or settled.
  - Problems can be solved in many ways
  - Choose a way for your characters to act and describe how they solve the problem
  - What happens as a result – what are the consequences of their actions? Do they succeed after the first action or are many actions needed to solve the problem?
5. Good stories need a **conclusion**.
  - A conclusion is an ending for your story.
  - Stories may have happy or sad endings, or end mysteriously (leaving the reader to think about what happened)

**Use the following Pages to plan your story. What happens after the Once-ler hands you the very last Truffula seed of them all?**

## Opening Sentence

4. The opening sentence should grab the reader's attention.
5. It should be a powerful statement filled with mystery, action, suspense or humour.

What happened to the seed? Create an opening for your story. You may want to retell the last part of the Lorax. Make sure that it grabs the readers attention.

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## Setting

- a) Begin by sketching your setting (a specific place, situation and time)

b) Brainstorm descriptive words (adjectives) to describe what your setting looks like, feels like, smells like and sounds like.



# Characters

Choose at least one character that is from *The Lorax* to be your main character (the boy that was given the seed, the Lorax, the Once-ler, a Bar-ba-loot, a Humming Fish or a Swomee Swan)

Brainstorm words to describe:

a) how he/she looks:

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b) what he/she is feeling:

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c) what he/she is thinking or saying:

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d) what other characters think about him/her:

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# Problem

a) What is the problem in the story? The problem in a story is what makes a story interesting, and also tells the reader how to feel, so choose the problem carefully.

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b) What choices will the main character make to solve the problem?

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c) What will be the consequences for these choices?

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# Trial Statements and Guides

## Barbaloots:

My name is \_\_\_\_\_ the Barbaloot. I used to play under the shade of the Truffula tree, eating Truffula fruit and enjoying the fresh morning breeze. But then the Onceler came and started cutting down our trees. Soon there wasn't enough to eat and we got very hungry. The worst part was:

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## Humming Fish

My name is \_\_\_\_\_ the Humming Fish. For many years I lived in the pond with my friends and family and hummed under the beautiful Truffula trees. Then last year the Once-ler arrived and started cutting down Truffula trees. At first it didn't bother us, but after a while he started pouring gluppity-glup in to our pond. It got so polluted that we had to leave because fish were getting very sick. The worst part was:

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## Swomee Swans

Hi my name is \_\_\_\_\_ and I an a Swomee Swan. I love to sing – all Swomee Songs love to sing. We used to sing all the time, but When that Once-ler moved here and started smogging up the air, we got smog stuck in our throats. The worst part was:

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## Scientists (crown)

My name is \_\_\_\_\_ and I am a Scientist. I studied samples from the water and air around the Thneed factory and found that there were high levels of pollution. This was caused because of two main reasons. First, because toxic waste was improperly disposed of and second because the trees that normally help to remove toxins from the air were all cut down. When you destroy one part of an ecosystem it affects other areas because they are all connected. For example:

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## Scientists (defence)

My name is \_\_\_\_\_ and I am a Scientist. I have been studying Thneed trees for many years now. Many people do not know that a thneed tree seed will not grow until it has laid on the ground during a fire. For example:

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## Once-ler family

My name is \_\_\_\_\_ Once-ler. Before my uncle gave me a job at the Thneed Factory, we were very poor. I needed a job very badly. We didn't even have money to buy \_\_\_\_\_. My uncle helped the whole Once-ler family. The greatest thing about my uncle is:

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## Thneed Buyer

My name is \_\_\_\_\_. I bought Thneeds from the Onceler Thneed Factory. You can use Thneeds for almost anything. The Thneeds have changed my life because...

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# Trial Sign up Sheet

|                         |  |  |  |
|-------------------------|--|--|--|
| Barbaloots              |  |  |  |
| Swomee Swans            |  |  |  |
| Humming Fish            |  |  |  |
| Scientists<br>(crown)   |  |  |  |
| Scientists<br>(defence) |  |  |  |
| Once-ler                |  |  |  |
| Lorax                   |  |  |  |
| Defense<br>Attorneys    |  |  |  |
| Crown<br>Attorneys      |  |  |  |
| Once-ler<br>Relatives   |  |  |  |
| Media / Jury            |  |  |  |
| Media / Jury            |  |  |  |
| Thneed buyer            |  |  |  |



\*Adjust according to class size. This set up is set for a class of 26, with 2 or 3 working in each group

## Mock Trial Script: Queen vs. Once-ler



Sheriff: All rise, this court is now in session. His/her Honor Judge Weehawken presiding. (every one remains standing)

Judge: You may be seated. (all sit)

Court Clerk: The Case of the Queen versus Green A. Once-ler.

Judge: Thank you. Are all parties present?

Crown: (Stands and addresses the Judge) Yes your Honor. I am \_\_\_\_\_ and these are my learned friends \_\_\_\_\_. We are acting on behalf of the Crown.

Defence: (Stands and addresses the Judge) Yes your Honor. I am \_\_\_\_\_ and these are my learned friends \_\_\_\_\_. We are acting on behalf of the accused.

Judge: Thank you (to court clerk) Please read the charge. (to the accused) please rise to hear the charge. (The accused, the Defence lawyers and the Court Clerk rise).

Court Clerk: Green, A. Once-ler. You are charged with criminal negligence for neglecting your responsibility to deal with your waste appropriately, destroying the natural habitat of the Bar-ba-loots, Swomee-Swans and the Humming-Fish and forcing them to leave. How do you plead?

Once-ler: Not Guilty

Court Clerk: Your Honor, the accused pleads "not guilty."

Judge: (to the Crown) Please proceed with your case.

Crown: (Opening Statement)... We now wish to call our first witness, \_\_\_\_\_.

Court Clerk: Take the Bible in your right hand. Do you swear to tell the truth, the whole truth and nothing but the truth, so help you God?

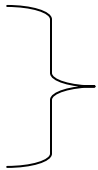
Witness: I do.

Crown: (Proceeds with questions)

Judge: Does the Defence wish to cross-examine this witness?

Defence: Yes. Your Honor, we do. (stands and questions the witness)  
(repeat with other witnesses)

Bar-ba-loot  
Swomee Swan  
Humming Fish  
Scientists



Recommended witnesses  
for the Crown

(Direct examination is limited to 5 minutes for each witness;  
cross-examination to 3 minutes for each witness)


Judge: Do you wish to call any more witnesses?

Crown: No, Your Honor, We rest our case.

Judge: (to the Defence) Would the Defence please begin?

Defence: (Proceeds with Opening statement and calls witnesses to the stand  
who are sworn in by Court Clerk, Crown cross examines - same  
format as before.)

Scientists  
Relative  
Thneed Buyer



Recommended witnesses  
for the Defence

Defence: We rest our case, Your Honor.

Judge: (Invites the Defence to begin their closing statement. This is a  
brief summary of the major points brought forward by witnesses  
for the Defence)

Defence: (Closing Statement to the Jury)

Judge: (Invites the Crown to begin their closing statement. This is a brief  
summary of the major points brought forward by witnesses for the  
Crown)

Crown: (Closing Statement to the Jury)

Judge: (to the Jury) To convict Green A. Once-ler with criminal negligence you must establish all of the following - beyond reasonable doubt.

- b) The Once-ler's actions caused the destruction of the Truffala forest ecosystem
- c) There was no need to cause it's destruction
- d) Other reasonable choices could have been made to ensure a sustainable system
- e) The Bar-ba-loots, Swomee Swans and Humming Fish were forced to leave because of this destruction.
- f) The before mentioned animals had no other choice

When you go to the jury room, you should first pick a Jury Foreman to act as a spokesperson. It is his or her duty to see that discussion is carried on in an orderly fashion, that the issues are fully and fairly discussed, and that every juror has a chance to participate. All of the jurors must agree upon the verdict.

Jury (leave the room to decide the verdict - they return when decided.)

Judge: Ladies and gentlemen of the jury, have you reached your verdict?

Foreman: Yes, Your Honor, on the charge of criminal Negligence we find the accused (guilty/not guilty).

Judge: (If not guilty, tell s the accused he is free to go, if guilty...)

Judge: Would the Crown please speak to the Sentence.

Crown: (The Crown will suggest a suitable sentence, in their opinion)

Judge: Thank you. Would the Defence please speak to the Sentence.

Crown: (The Defence will suggest a suitable sentence, in their opinion)

Judge: (Sentences the Accused) The court is now adjourned.

Court Clerk: All rise, this court is now adjourned. (Everyone stands while the Judge leaves the courtroom.)

# Fingerprinting: Expert Lab 1 Instructions

## Equipment

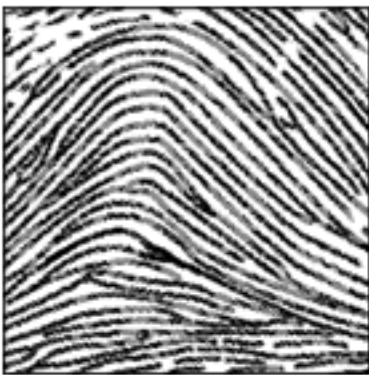
- Pencils
- ink pad
- small post it notes
- scotch tape
- white paper
- magnifying lens

## Background Information

No two fingerprints are the same, but they can have **similar** pattern types. Forensic Scientists look at these patterns to **classify** fingerprints.

## Part 1 - Classification

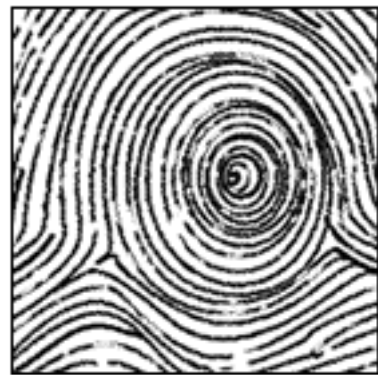
All prints can be divided into three pattern classes:



PLAIN ARCH



LOOP



PLAIN WHORL

## Directions:

1. Roll each finger from one hand on the ink pad and then press your finger on one of the boxes.
2. Sort all of the fingerprints from your expert group and create a pictograph (Composite means a mix of more than one type)
3. Arches are the least common type of fingerprint throughout the world, loops are the most common. In your group which is the least common? Which is the most common?

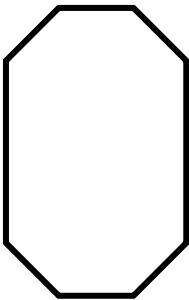
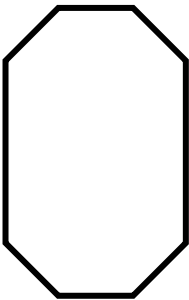
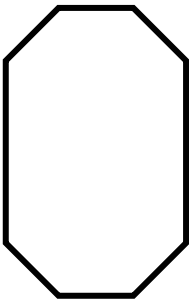
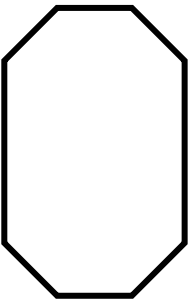
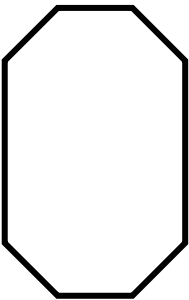
## Part 2 - Matching and Identification

1. Place the finger prints from your right hand on the fingerprint record card
2. Examine each print with a magnifying glass and identify the pattern (A for arch, W for Whorl, L for loop, C for Composite)
3. Make an extra copy of one of the fingerprints and put it at the space provided.
4. Trade your paper with a partner and try to identify which finger the extra print came from.

# Finger Printing: Lab 1 Work Sheet

## Lesson #1: Part 2

Place your Finger prints from your right hand on the card below. Label each print in the box below the print (W for whorl, A for arch, L for loop or C for composite). Place an extra print in the Mystery Print box. Hand it to a partner and see if they can identify the mystery print.

|  |  |  |  |   |               |
|--|--|--|--|---|---------------|
| Name: _____  |  |  |  |   | Mystery Print |
| thumb  | index  | middle   | ring   | pinky   |               |
|  |  |  |  |  |               |
|  |  |  |  |   |               |

## Lesson #1: Part 1

Place fingerprints in boxes below and cut out. Sort and create a pictograph with your group.

|  |  |  |  |  |
|--|--|--|--|--|
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

# Pictograph: Fingerprint Pattern Types

| Loop | Whorl | Arch | Composite |
|------|-------|------|-----------|

# Fingerprinting: Expert Lab 2

## Equipment

- talcum powder
- scotch tape
- brushes with soft bristles
- black paper
- (make up brushes work well)
- smooth flat surfaces

## Background Information

No one in the world has finger prints that are exactly the same - not even identical twins. When you touch things, sometimes you leave fingerprints behind that are invisible or very hard to see. These invisible prints are made from the oils, and salts in your skin. They are called *latent* fingerprints (latent means hidden). In this activity the hidden prints are developed (made visible) by using powders.

## Part 1: Developing Fingerprints

1. Rub your fingertips in your hair to make them oily. Press a finger on a flat, smooth surface.
2. Dust the print with a contrasting coloured powder, brushing very lightly over the print.
3. When the fingerprint is fully developed press a piece of scotch tape on to the print.
4. Peel off the tape carefully and stick it on to a piece of black paper.

Use white powder  
on dark surfaces



Use black powder  
on light surfaces



5. Compare the print to the records made in the first activity. Can you tell who it belongs to?

## Part 2 - Practice Lifting

Challenge someone from your expert group to find your fingerprint on an object and identify that it's yours. Practice your technique of "dusting" and "lifting" so that when you return to your home "Criminalist group" your group members can depend on you as a *fingerprint expert*.

# Chemical Detection: Expert Lab 1

## Equipment

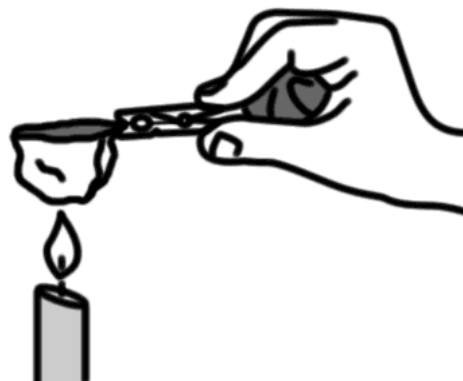
- sugar
- salt
- corn starch
- baking soda
- plaster of Paris
- iodine solution
- vinegar
- water
- candle
- candle holder (jar lid)
- magnifying lens
- clothespin
- black paper
- tin foil

## Background Information

The white powders might look the same at first, but if you test them carefully, you will see that they react differently to heat, rubbing and other chemicals.

### Part 1 - Powder Characteristics

1. Add a drop of vinegar to a small sample of each powder and record the results in the table.
2. Add a drop of iodine solution to a small sample of each powder and record the results in the table.
3. Add a small amount of water (one or two drops) to each powder and record the results in the table.
4. Spread a small portion of each powder on the black paper and observe with the magnifying lens. Record the results in the table.
5. Heat a small amount of each powder in a tin foil cup (with a clothespin handle). Be sure to tie back long hair and roll up baggy shirt and sweater sleeves. Record the results in the table.



### Part 2 - Detecting Mixed Powders



1. Make a "mystery mixture" by combining a little of two or more powders.
2. Now, give the mystery mixture to another student in your expert group to see if he or she can detect the powders that are in it.

# Chemical Detection: Lab 1 Work Sheet

## Chemical Detection: Lesson #1: Part 1

|                  | black paper | vinegar | iodine | water | heat |
|------------------|-------------|---------|--------|-------|------|
| sugar            |             |         |        |       |      |
| salt             |             |         |        |       |      |
| flour            |             |         |        |       |      |
| baking soda      |             |         |        |       |      |
| starch           |             |         |        |       |      |
| plaster of Paris |             |         |        |       |      |

## Chemical Detection: Lesson #1: Mystery Mixture

| Test        | Observations | I think this Mixture contains: |
|-------------|--------------|--------------------------------|
| Black paper |              |                                |
| vinegar     |              |                                |
| iodine      |              |                                |
| Water       |              |                                |
| heat        |              |                                |

# Chemical Detection Lesson 2: Chromatography

## Equipment

- one permanent black pen
- a variety of black, non permanent (water soluble) pens
- strip of filter paper for each pen
- cup of water
- pencil
- tape

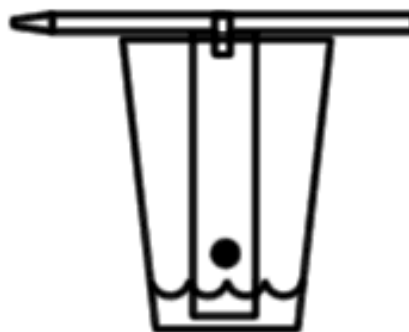
## Background information

Sometimes you can determine who wrote a letter just by examining their style of writing, but did you know it is possible to determine the pen that wrote it? Inks and dyes usually contain a mixture of many different colours. Every brand uses a different colour mixture to make black. You can separate these colours using chromatography.

## Part 1 - Separating Black Ink

### Steps:

1. Place a dot of ink near the bottom of each strip. Be sure to identify which strip belongs to which pen,
2. Dip the end of the strip into a container of water, just below the dot. Make sure the ink stays above the water, but that the strip stays dipped into the water. (you can tape the strip to a pencil and lay it across the rim of a glass of water.)
3. Allow the water to soak up the strip - watch what happens to the ink as the water reaches the spot.
4. Compare each strip when they are all finished. Repeat the experiment to see if the results are the same.
5. Let the strips dry and tape them into your book. Label the strips and keep as a record of the various pens



## Part 2 - Forgery Challenge

### Instructions:

1. Cut out the letter below.
2. Make small changes to one with a non permanent pen. (add extra zeros to the number, change Mr. Mac to Mr. Mad by adding a line to the "c". Also change "Voc" to Mad in the last sentence)
3. Hand the papers to another student and ask them to guess which is the forgery. You may need to prove a forgery by analyzing the ink.

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Dear Mom,

I will be late after school today because the Water-Animal Club is having a meeting. Please give Mr. Mac \$10 from my piggy bank. I bought his turtle on the way to school yesterday and he will be coming to pick up the money. I have two new fish on my dresser in separate bowls. I wrote their names under the bowls. One is named Voc, the other is Mad (named after Mr. Mad from down the road.). Please feed my fish Voc. Don't feed the other, he has eaten already.

---

Dear Mom,

I will be late after school today because the Water-Animal Club is having a meeting. Please give Mr. Mac \$10 from my piggy bank. I bought his turtle on the way to school yesterday and he will be coming to pick up the money. I have two new fish on my dresser in separate bowls. I wrote their names under the bowls. One is named Voc, the other is Mad (named after Mr. Mad from down the road.). Please feed my fish Voc. Don't feed the other, he has eaten already.

# Microscope Analysis: Expert Lab 1

## Equipment

- sugar
- salt
- flour
- baking soda
- plaster of Paris
- hair spray or jell
- microscopes
- hair samples



Sometimes criminals leave evidence at the crime scene that is too small to see well with only your eyes. A microscope can help you look closely at differences to classify and identify them.

## Part 1 - White Powder Analysis

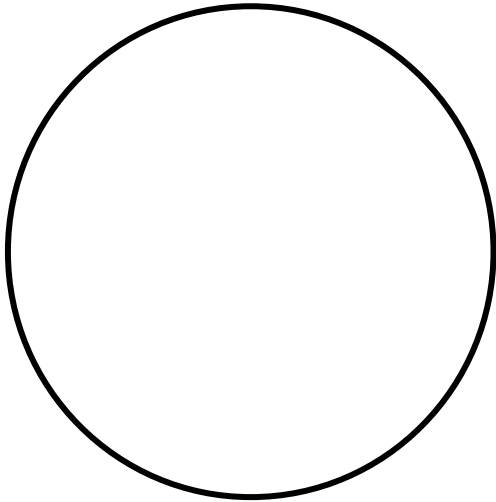
1. Place a few grains of sugar on a microscope slide. What do they look like? Sketch a picture. Do they have a common shape? Repeat for all other white powders.

|                                    |   |
|------------------------------------|---|
| <b>Sketch of Sugar:</b>            | <b>Sketch of Flour:</b>   |
| <b>Description:</b>                | <b>Description:</b>   |
| <b>Sketch of Salt:</b>             | <b>Sketch of Plaster of Paris:</b>  |
| <b>Description:</b>                | <b>Description:</b>   |
| <b>Sketch of Plaster of Paris:</b> | <ol style="list-style-type: none"> <li>2. Mix a small amount of two powders together and challenge another student in your group to identify the powders through microscope analysis</li> </ol> |
| <b>Description:</b>                |   |

## Part 2 - Hair Analysis

1. Pull a few hairs from your head and put them on a microscope slide. Keep the hairs in place with a drop of water and a cover slip.
2. Use the microscope under low and high power to examine the ends

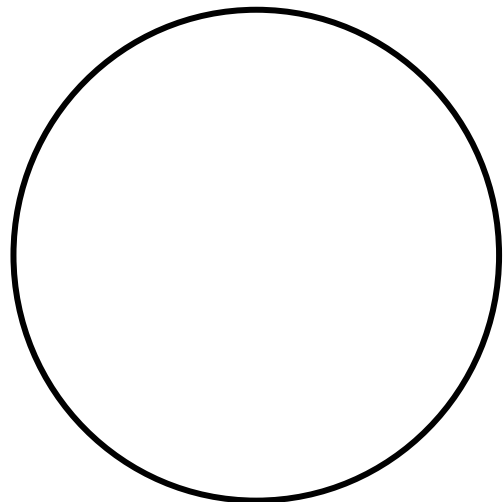
Pulled Hairs



of the hairs. Draw a picture of what you observe.

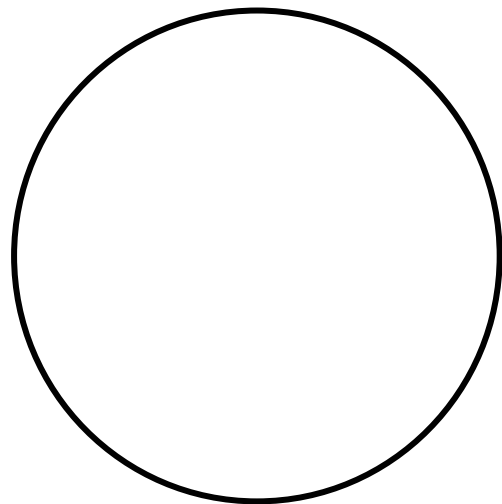
3. Now cut some hair from your head with a pair of scissors and examine the end. Draw a picture of what you observe.

Cut Hairs



4. Put some hair spray on a small part of your hair and pull a few hairs to examine under the microscope. Do you see anything on the cuticle of the sprayed hairs?
5. Compare your hairs to the hairs of other students in your expert group. See if you can get some of your teacher's hair to compare. How could you make notes and records of the descriptions of the different hairs as you see them under the microscope?
6. Use the chart to practice drawing diagrams of the different hairs as you see them under the microscope

Hair with Hair-Spray



# Lab 2: "Putting the Pieces Together"

## Equipment

- tin foil
- paper matches
- hand lenses
- microscope slides
- gum wrappers
- black light
- microscopes



## Background Information

One of the ideas behind forensic science is that a criminal always takes something away from the scene of a crime and leaves something behind. This might be something as simple as a part of a gum package. If the rest of the gum package found on a suspect matches the piece left at the scene of a crime, then a fairly convincing case can be put forward. Perhaps there would be a ripped piece of tin foil that would convict a suspect of a crime.

## Part 1 - Matching Torn Tin Foil

### Steps:

1. Tear a small piece of tin foil into two pieces.
2. Carefully examine the torn surfaces of each half to determine if you can make a match.
3. Take a look at the edges under a microscope. How would you record your observations and evidence in a convincing way?

Can you match the two pieces of torn tin foil?



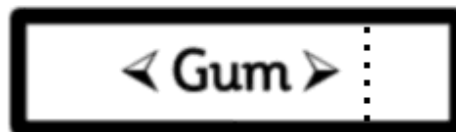
Does using the microscope help in the "tough" areas?

Sketch the two halves as seen under the microscope:

## Part 2 - Matching the Parts of Gum Wrappers

### Steps:

1. Give a candy wrapper to each person in the group.
2. Rip the top off the wrapper. Keep the bottom half of the wrapper and place the top in a bag with all of the other tops. Mix up the wrapper tops.
3. Label each of the tops and sketch the tear line.



Can you make a match?

|                      |               |               |
|----------------------|---------------|---------------|
| <b>Candy Wrapper</b> | <b>Top #1</b> | <b>Top #2</b> |
|                      | <b>Top #3</b> | <b>Top #4</b> |
|                      | <b>Top #5</b> | <b>Top #6</b> |

# Track and Soil Analysis: Expert Lab 1

## Equipment

- white paper
- filter paper
- pH paper
- magnifying lenses
- a variety of soil types
- test tubes
- test tube racks
- funnels
- magnifying glass
- tin foil
- water
- vinegar
- ammonia

## Background information

Many crimes involve contact between the criminal and the victim resulting in soil from footwear and footprints being left at the scene of the crime. Sometimes the soil from the scene of a crime (say, a garden) can be found and identified on the suspect later.

## Part 1 - Soil Analysis

### Steps:

1. Collect soil samples from around the school (outside, from potted plants, from playground, etc).
2. Use the magnifying glass to find the colour(s) of the soil samples provides and the ones from around the school.
3. Check the size of the soil particles, and any plant or animal life that is present.
4. Check for other materials (paint chips, plastic, styrofoam etc.)
5. Feel if the soil is damp or dry.
6. Compare your soil to that of another student in your expert group. In what ways are the soils the same? In what ways are they different?
7. Record all information on soil in the table

| Observations   | Your Soil | Partner's Soil |
|----------------|-----------|----------------|
| colour         |           |                |
| Particle size  |           |                |
| Plant life     |           |                |
| Animal life    |           |                |
| Other material |           |                |
| dampness       |           |                |
| pH (part 2)    |           |                |

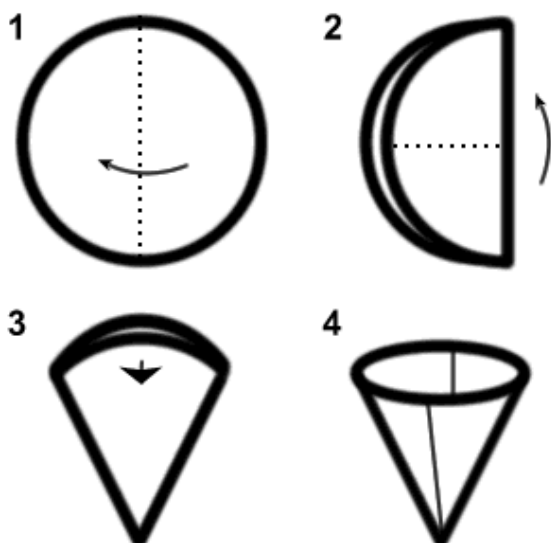
## Part 2 - The Acidity of Soil

### Steps:

1. Set up three test tubes. Add 2mL of water to the first, 2mL of acid (vinegar) to the second, and 2 mL of base (ammonia) to the third.
2. Dip a piece of pH paper (litmus paper) into each of the liquids in the test tubes.
3. Observe what happens to each of the pieces of test paper. Record your observations on the chart.

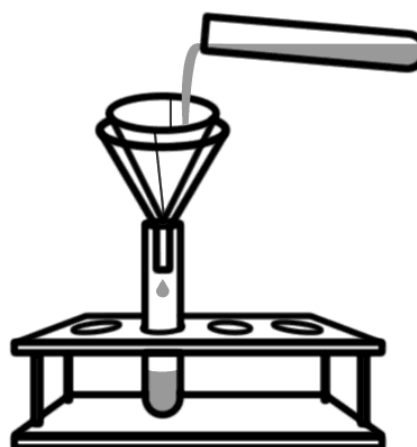
| Liquid Sample | Colour of pH paper |
|---------------|--------------------|
| Acid          |                    |
| Base          |                    |
| Neutral       |                    |

4. Put a small amount of the soil into a test tube. Add 10 mL of water and shake thoroughly to mix the soil and water together.
5. Fold a piece of filter paper as shown.



6. Place the filter paper in the funnel and filter the soil and

water mixture into another test tube.



7. Test the liquid that comes through the filter paper with the pH paper (litmus paper) to see whether it is acid, base or neutral. Record your findings.

|       |      |      |         |       |      |      |         |
|-------|------|------|---------|-------|------|------|---------|
| Soil: | acid | base | neutral | Soil: | acid | base | neutral |
| Soil: |      |      |         | Soil: |      |      |         |
| Soil: |      |      |         | Soil: |      |      |         |
| Soil: |      |      |         | Soil: |      |      |         |

## Part 3 - Footprints Analysis

### Steps:

1. Push the print of your shoe into a piece of tin foil. Practice taking the measurement of the footprint and describing and drawing the pattern on the sole of the shoe.
2. Compare your footprint with that of another student in your expert group. Can you describe the differences and similarities in the two footprints in a convincing way?
3. Record your observations of footprints in the following chart.
4. Practice comparing footprints again if you have extra time.



|                              |                     |
|------------------------------|---------------------|
| <b>Foot print Sketch # 1</b> | <b>Description:</b> |
| <b>Footprint Sketch #2</b>   | <b>Description:</b> |