

# **Kit #14**

# **Crime Lab**

## **Chemistry/Fingerprinting**

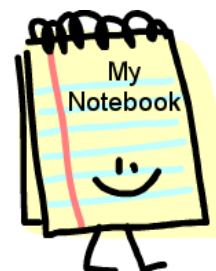
# **Blackline Masters**

Pages A – H have been provided to assist you in creating student notebooks for this unit. This would be a good unit to work with students on their notebook skills or to introduce utilizing a notebook. The actual notebook format would be of your choosing.

The next nine pages are replicas of reproducible pages from the actual GEMS Teacher Guide. We provide them to assist you in making copies for your students.

**Student's Name:** \_\_\_\_\_ **Date:** \_\_\_\_\_

Science Kit Activity: \_\_\_\_\_



## Student Science Notebook Rubrics

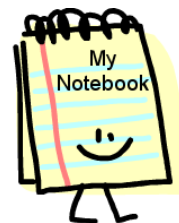
Score	Criteria	Comments
3	The writing/drawing shows detail and accuracy in recording observations; the child uses rich science vocabulary, and is able to answer related questions.	
2	The writing/drawing includes mostly accurate details; some may be inaccurate or missing.	
1	The writing/drawing shows partial knowledge; lacks detail.	
0	There is little or no response, or the writing/drawing is inaccurate or unrelated.	

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

## My Science Notebook

How did I do?

I am looking at my journal entry about \_\_\_\_\_



Color one

1. Did I organize my writing and pictures so that my journal is easy to understand?



2. Did I use words and pictures to tell what I did and observed?



3. Did I use science terms in my writing?



4. Does my journal tell the story of what I am doing and finding out in science?



Complete these sentences.

5. What I like best about my science journal is \_\_\_\_\_

\_\_\_\_\_

6. In my next journal section I will try to \_\_\_\_\_

\_\_\_\_\_

7. A question or problem that I have with my science journal is \_\_\_\_\_

\_\_\_\_\_

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

## *Our Science Group*

How well did we work together?



Who was in our science group?

**Color One**

1. Our group was able to work together to get our science work done.
2. Each person in our group was able to participate. Everyone was able to share his or her ideas
3. Our group was able to follow directions.
4. If I was an employer I would hire our group to do this work.



Working with a group of people can make the work easier. Sometimes working with a group of people can make the work harder. Think about your group for science and complete these sentences.

5. Our group had problems \_\_\_\_\_

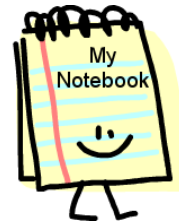
\_\_\_\_\_

6. Our group worked best at \_\_\_\_\_

\_\_\_\_\_

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

## Science Notebook Skills



Read each statement.

Check the boxes to tell about your science journal.

	I did great!	I did okay.	I need to work on this.
1. I described what I saw.			
2. I used accurate measurements. I used careful details.			
3. I described what was the same and what was different.			
4. I used pictures to help tell what I saw or did.			
5. I labeled my pictures.			
6. I used the information I collected to draw a conclusion.			

# Crime Lab

## ***Chemistry/Fingerprinting***



### **Investigator's Notebook**

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

# Crime Lab Chemistry

## Table of Contents

[illegible]

CRIME LAB CHEMISTRY VOCABULARY

WORD		DEFINITION
chromatography	-	
blank	-	
chromatogram	-	
insoluble	-	
medium	-	
mixture	-	
molecules	-	
pigment	-	
soluble	-	
solution	-	
solvent	-	
substance	-	
system	-	
variable	-	

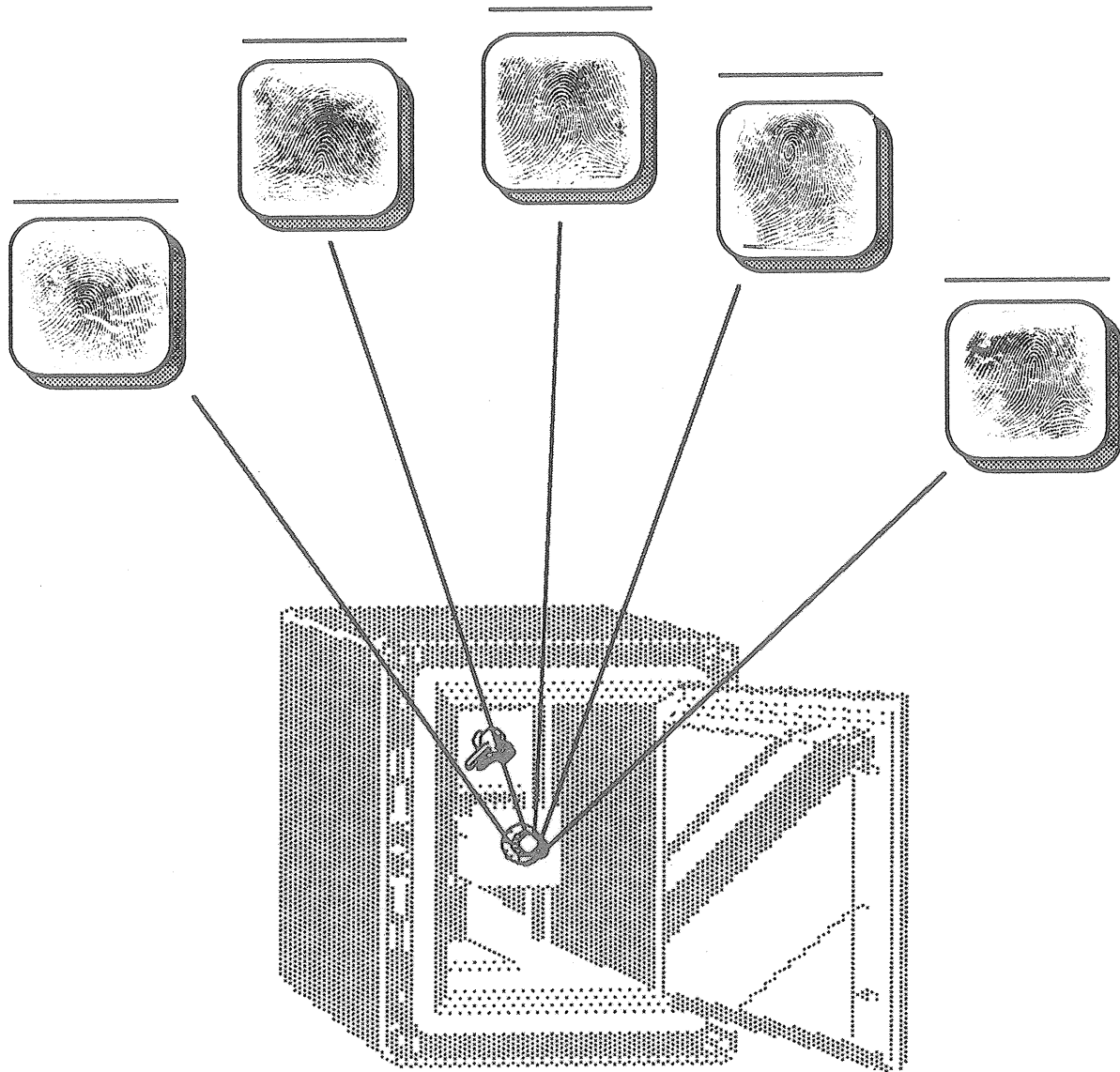


CRIME LAB FINGERPRINTING VOCABULARY

Write a definition by using words and drawing a picture.

criminologists	
arches	
loops	
whorls	
inherited	
environment	

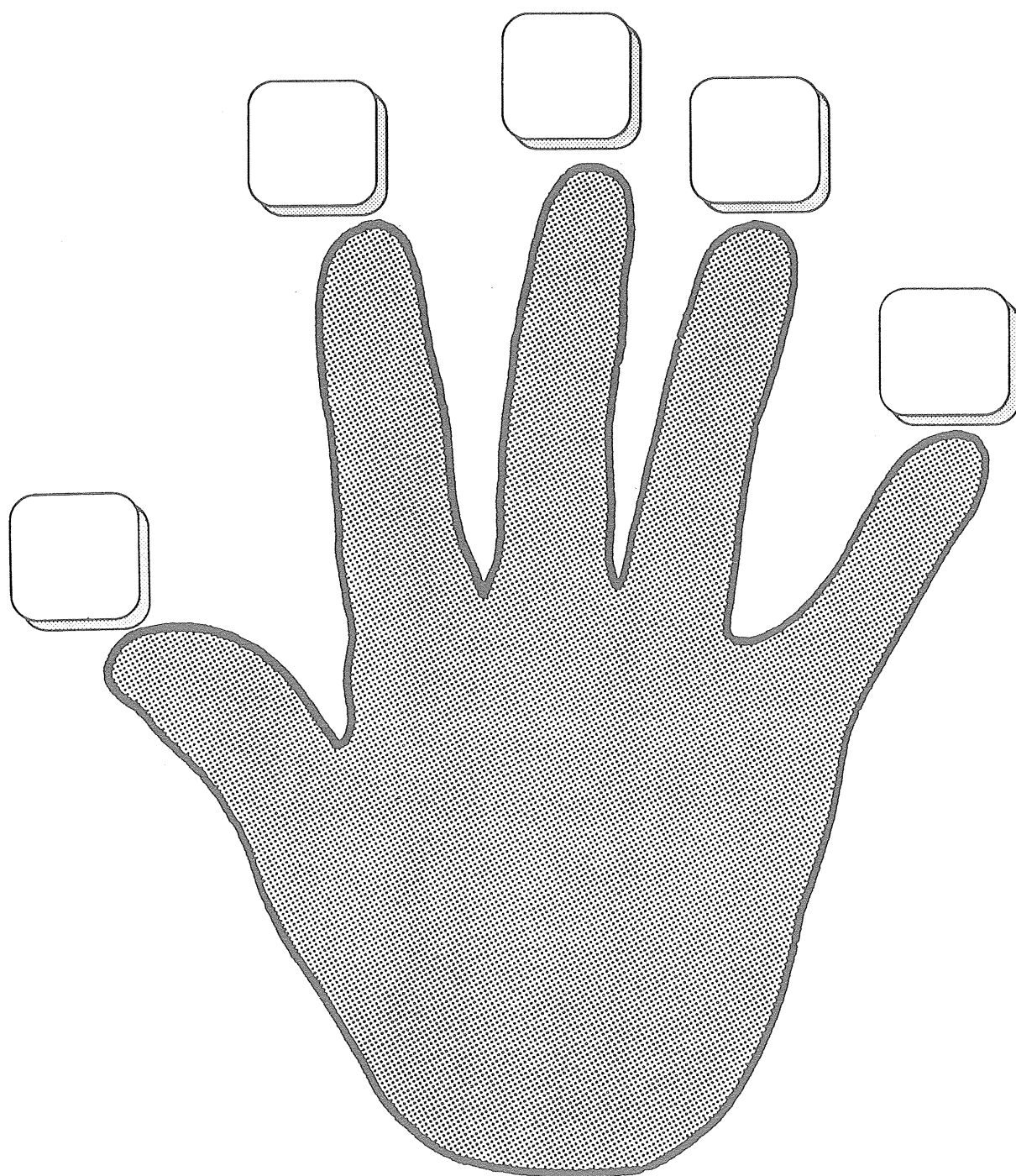
# Safe with prints



# Your Fingerprints

Name \_\_\_\_\_

Use this sheet with your right hand (palm down) or your left hand (palm up).



© 1987 by the Regents of the University of California  
LHS—Great Explorations in Math and Science: *Fingerprinting*

Which hand did you use? \_\_\_\_\_

What is your fingerprint formula? \_\_\_\_\_

# 10 Fingerprints



1



2



3



4



5



6



7



8



9



10

# Suspects

Name \_\_\_\_\_

An Example



Arch



Loop



Whorl

Thumb



Forefinger



Middle finger



Ring finger



Little finger



President

Secretary



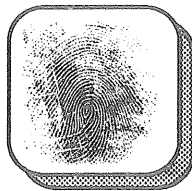
Vice-President



Accountant



Janitor



# Suspects

Name \_\_\_\_\_

An Example →



Arch



Loop



Whorl

Thumb



Forefinger



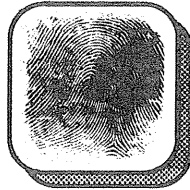
Middle finger



Ring finger



Little finger



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

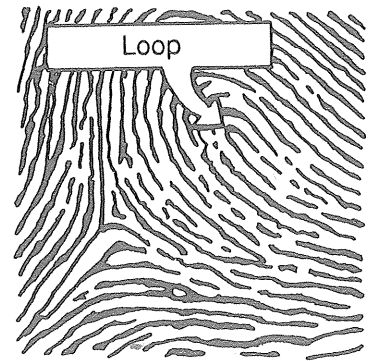
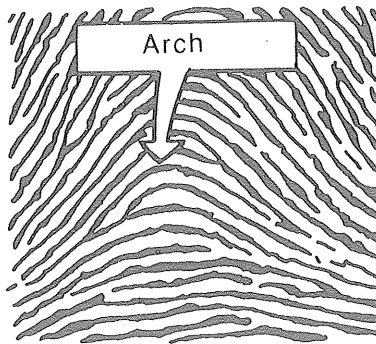
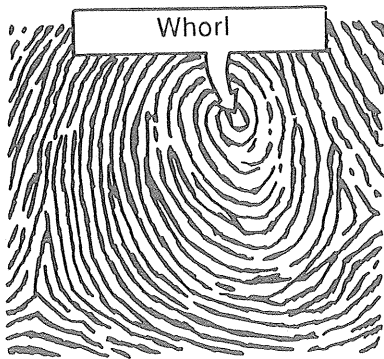
# Fingerprint Patterns

Every person in the world has a unique set of fingerprints, unlike those of any other person who ever lived.



Even though everyone's fingerprints are unique, there are basic patterns that are always found. These patterns help criminalists classify fingerprints.

The three basic patterns are:



**Whorl** patterns have lots of circles that **do not** leave either side of the print.

**Arch** patterns have lines that start on one side of the print, rise toward the center, and leave on the **other** side of the print.

**Loop** patterns have lines that start on one side of the print, rise toward the center, turn back and leave on the **same** side from which they started.





Arch





Whorl



Loop