

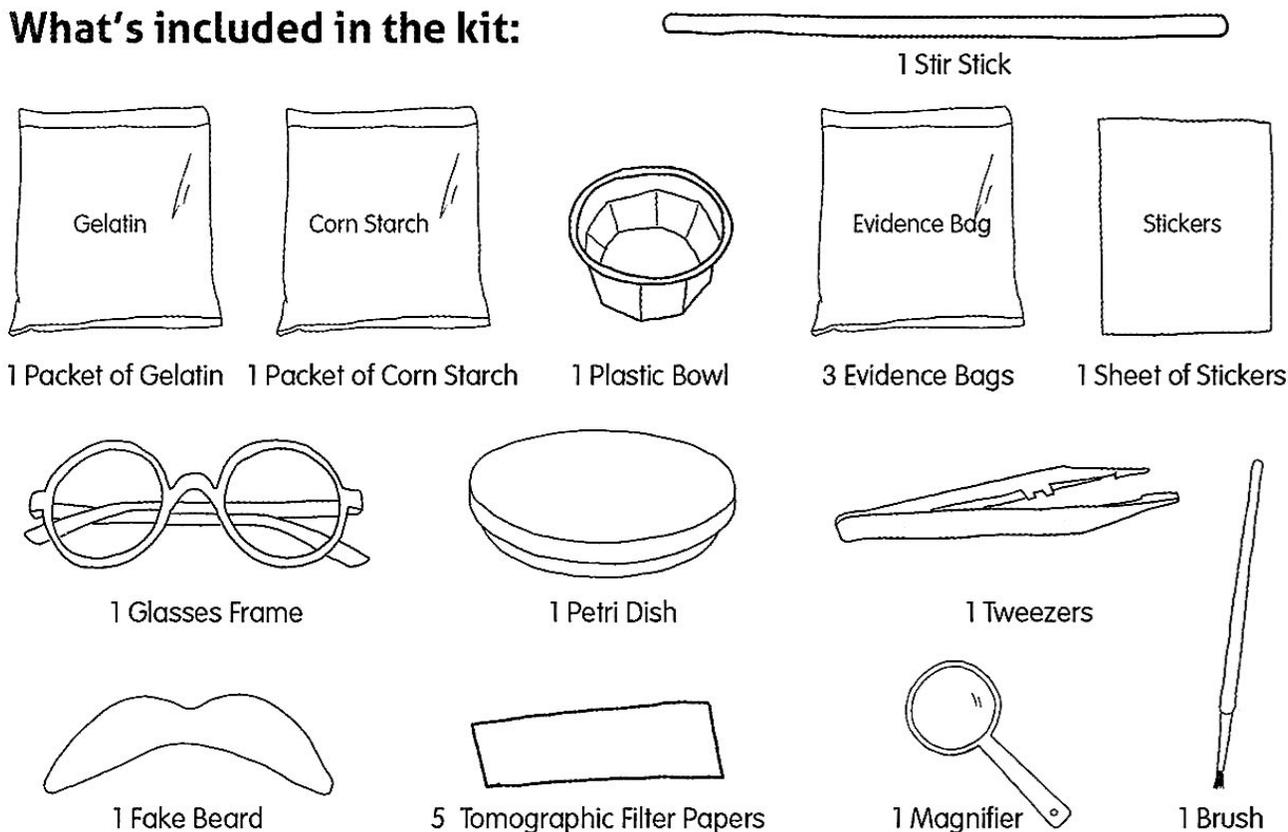
DETECTIVE TRAINING CAMP



WARNING: THIS SET CONTAINS CHEMICALS THAT MAY BE HARMFUL IF MISUSED. READ CAUTIONS ON INDIVIDUAL CONTAINERS CAREFULLY. NOT TO BE USED BY CHILDREN EXCEPT UNDER ADULT SUPERVISION.

If you want to be a detective, you need some detective skills such as keen observation, serious attitude, persistent efforts. The Detective Training Camp kit can train you in various skills. Complete these activities from this kit and you will be a real detective.

What's included in the kit:

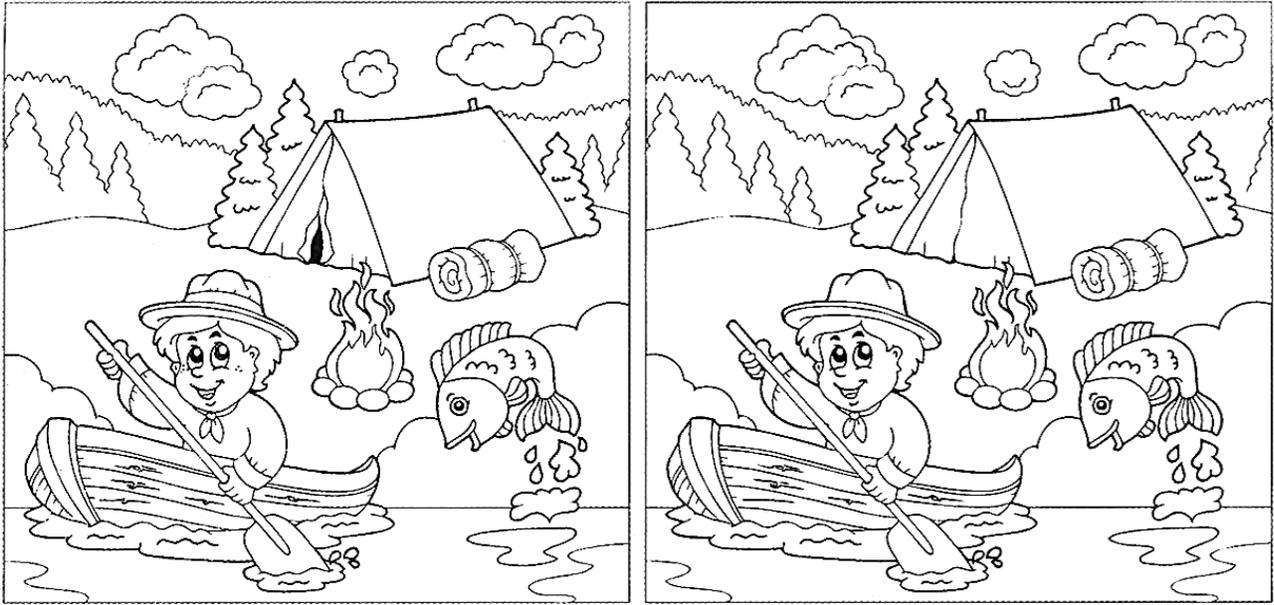


What you need to get or use:

Some Hot Water, 1 Pencil, 1 Mark Pen, Some Sugar, Clothes, 1 Hat, 1 Piece of Newspaper, 5 Cotton Swabs, 1 Teaspoon, 1 Blank Paper, Some Starch, 1 Glass Cup, 1 Notebook, Some Black Pen or Other Colorful Pen, 1 Watch, 1 Flexible Ruler, 1 Calculator.

Notes:

You should well place your test appliances and reagents in the test and avoid splash. Clean and dry the repeatedly used appliances in the activities. Wash hands and clean the test appliances after the activities.

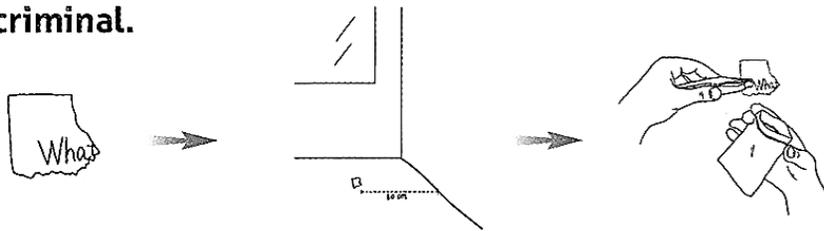


Additional Challenge:

Take 30 seconds to observe a showcase in a department store. Then turn around and write down what you see. Compare this record with the real situation. If you practice this activity many times, you will improve your observation.

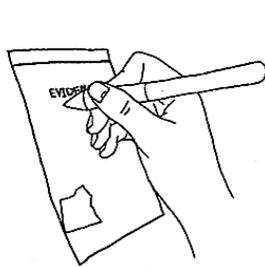
Activity #2: Trace Tracing

The criminal leaves some traces at the crime scene, and we need to find these traces and infer who is criminal.



- What you'll need from the kit:**
- 1 Tweezers
 - 3 Evidence Bags
 - 1 Magnifier
- What you need to get or use:**
- 1 Flexible Ruler
 - 1 Blank Paper
 - 1 Mark Pen

1. Look for small traces in the room, which we can take as traces left by the criminal, such as hair, thread, dirt and paper with handwriting, etc.
2. Locate the traces, use a flexible ruler to measure their position in the room such as how far it is from the wall, how far it is from the table, etc.
3. Pick up the traces with tweezers and put them in the evidence bags. Use a mark pen to write down the item name and remarks on the evidence bags.



4. Record the evidence, using a pencil to draw down the layout of the room, the location of the traces you found and the information you were measured.



Observe

5. Use a magnifier to look at the items and guess where they came from?

More Knowledge:

If you get hair: Observe the hair with the magnifier to see it is long or short and it is curly or straight. The location of the hair is a clue to show who has been to this place.

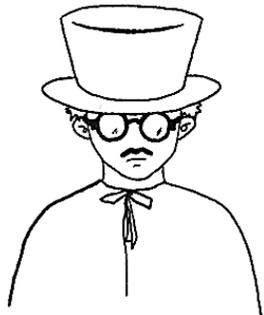
If you get thread: Observe the thread with the magnifier. Is the thread from a garment or curtain?

If you get dirt: Observe the dirt with the magnifier, you can see the color of the dirt and the size of the particles. Think about where you've seen the same dirt. In a garden or a flowerpot? Deduce where the dirt come from?

According to the traces of bed or sofa to determine who is likely to move them, Is it an adult or a child?

Activity #3: Camouflage and Investigation

During investigating a case, the detective has to tag along or follow someone. The detective will find more evidences this time. Try track training and don't let anyone detect you.



If you want to become a tracking master, firstly you should to learn how to disguise yourself. Do not let the tracking object find you.

1. Wear glasses, glue on a fake beard, change clothes that you don't usually wear, and wear a black hat, you will make a big difference.
2. You can take a piece of newspaper as a cover, secretly follow your parents or your friends.
3. You need to keep track of where they went and what they did at a particular time, and be careful not to get caught.
4. After the tracking, show your results to the following objects, tell them what they have done and where they have been, and if they don't find you, you are successful.

Activity #4: Take Fingerprints

Criminals will leave a lot of traces on the scene, especially fingerprints. Fingerprints are a good evidence to locate criminals. Learning to collect fingerprints is a necessary skill for a detective.

What you'll need from the kit:

- 1 Fake Beard
- 1 Glasses Frame

What you need to get or use:

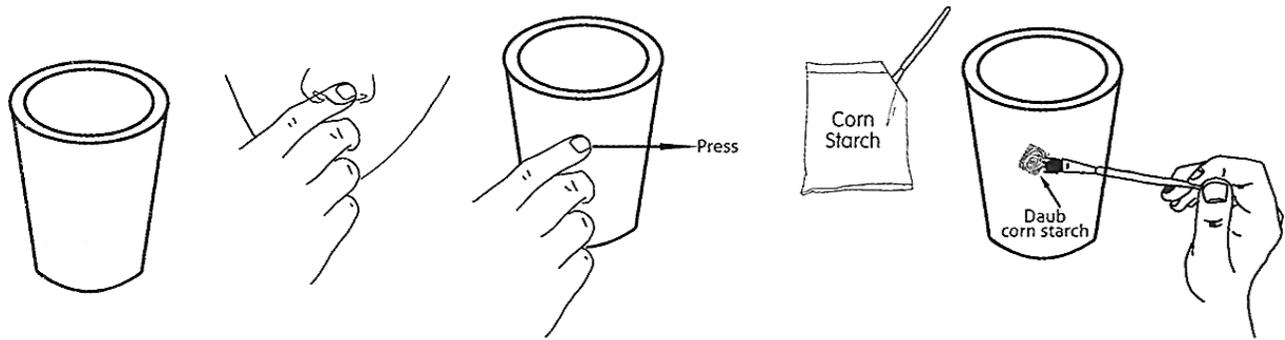
- 1 Newspaper
- Clothes
- 1 Hat

What you'll need from the kit:

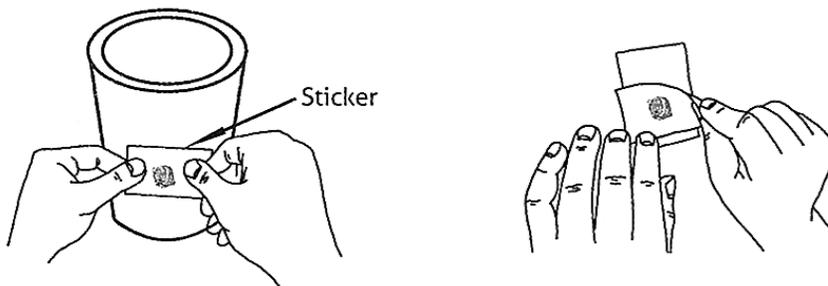
- 1 Brush
- 1 Sheet of Stickers

What you need to get or use:

- Some Starch
- 1 Glass Cup



1. Find a glass cup. Touch your hair or nose with your fingers, then press your hand on the surface of the cup.



2. Dip a brush into the starch and lightly sweep the freshly pressed fingerprint to make sure that it is completely covered with starch.

3. Use your mouth to gently blow away the excess starch from your fingerprints. Don't damage the fingerprints.

4. Use transparent stickers to collect the fingerprint and put them in the fingerprint collection column.

5. Repeat steps 1-5 to collect the fingerprints of all fingers.

Thumb	Index finger	Middle finger	The ring finger
Little finger	Date: _____ Name: _____ Gender: _____ Age: _____ Height: _____ Weight: _____		
Comment: _____			

Thumb	Index finger	Middle finger	The ring finger
Little finger	Date:	Comment:	
	Name:		
	Gender:		
	Age:		
	Height:		
	Weight:		

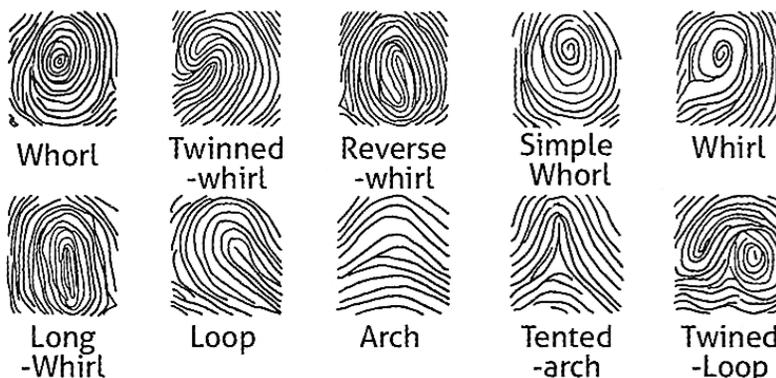
More Knowledge:

People have different genetic gene which lead to different fingerprints. Each fingerprint is unique. Therefore, the fingerprints collected at the crime scene are very important evidences.

Activity #5: The Mystery of Fingerprints

What you'll need from the kit:
1 Magnifier

1. Look closely at each collected fingerprint, and fingerprints can be divided into several types.
2. Use the magnifier to observe the thickness of the fingerprint line and the characteristics of the rotation direction of the fingerprint.
3. Compare the pictures below, what type of fingerprints are you?



More Knowledge:

Fingerprints are increasing the friction of your fingers and it make you easier to grab something. Fingerprint is a natural result of human evolution.

Activity #6: Microbial Culture

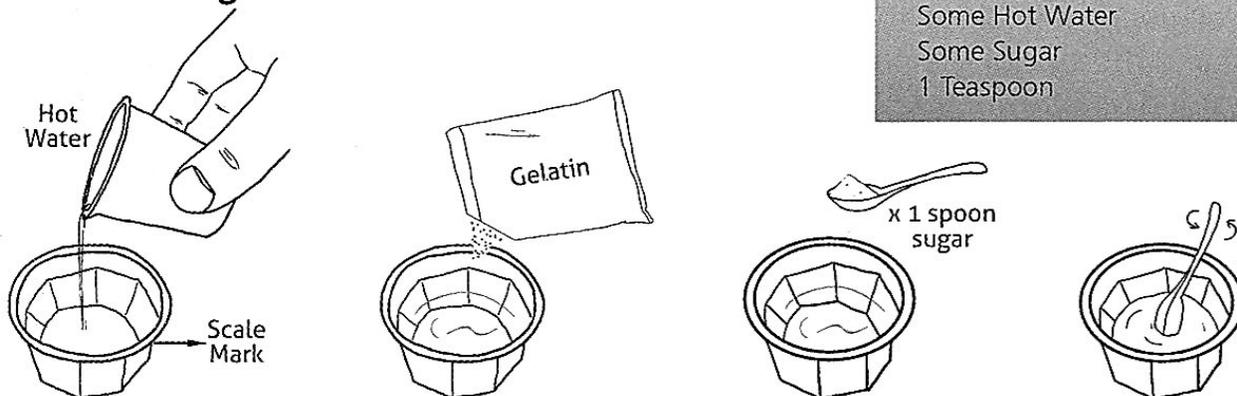
There are many microbes living in our environment. These microbes can attach to hands, clothes and shoes. Criminals leave behind the microbes in crime scene which is also an important evidence. Let's learn how to grow and discover microbes.

What you'll need from the kit:

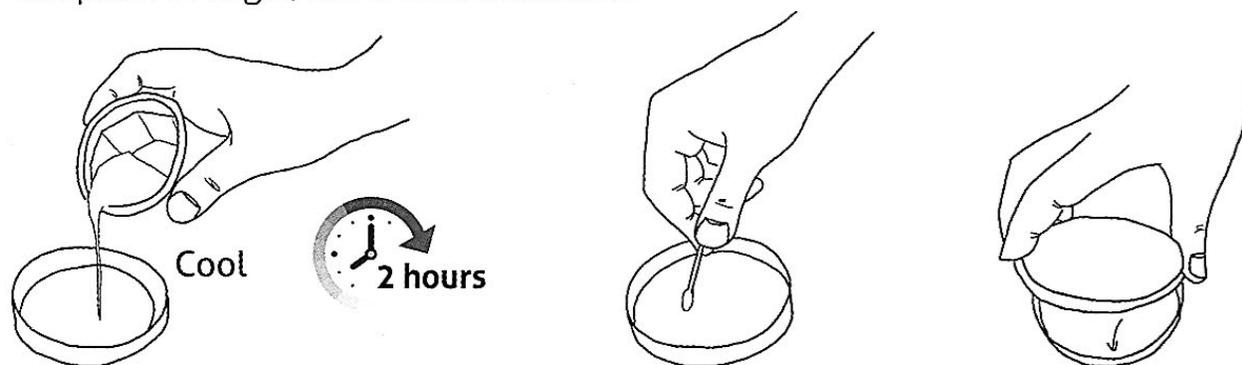
- 1 Packet of Gelatin
- 1 Stir Stick
- 1 Plastic Bowl
- 1 Petri Dish

What you need to get or use:

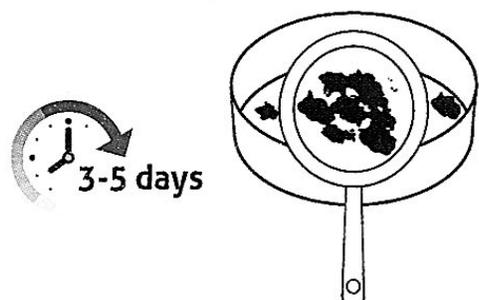
- 5 Cotton Swabs
- Some Hot Water
- Some Sugar
- 1 Teaspoon



1. Pour some hot water to a bowl at scale mark, add all the gelatin and add 1 teaspoon of sugar, stir it until dissolved.



2. Pour the gelatin solution into the petri dish and cool for 2 hours.
3. Wipe your feet, nails and forehead with a cotton swab, and then use the cotton swab gently to wave the gelatin.
4. Cover the petri dish and put it in a warm place.



5. Wait 3-5 days and observe the petri dish, what happens?
6. Use your magnifier to observe these hairy microbes colonies.

More Knowledge:

Microbes are closely related to people, Microbes are more likely to be left at a crime scene than fingerprints, everyone has a different microbe, therefore, microbes can accurately distinguish between different people. Microbes are stubborn and difficult to remove, and they don't rub off as easily as fingerprints.

Activity #7: Handwriting Dispersion

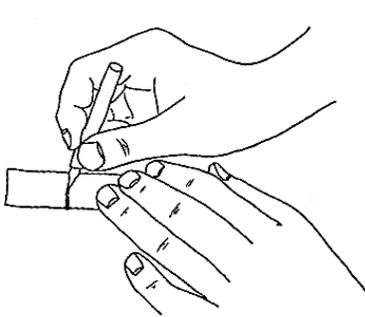
When a piece of paper is found at the scene of the crime, there is an important clue on it. Four people present said they were not suspect. They had pens in their pockets that were the same color as the words on the paper. The detective could determine who is the suspect by handwriting on the paper. Do you know how to do that?

What you'll need from the kit:

- 5 Tomographic Filter Papers
- 1 Plastic Bowl

What you need to get or use:

- Some Black Pen or Other Colorful Pen
- Some Water



1. Draw a line in the middle of the tomographic filter paper with a black pen.
2. Add half a bowl of water, put the marked tomographic filter paper vertically in the water.
3. Wait 1 minute, observe the color change near the black line of the tomographic filter paper.
4. Try to find another color pen, repeat 1-3 Steps, observe the change of color at the same time.

More Knowledge:

Different colors of ink have different compositions which lead to different colors of ink have different diffusion rates in water. The detective can determine who is writing by ink diffusion rates.

The answer of Activity 1: SHARP OBSERVATION

PRIMARY TRYING: There are 9pcs glasses and 8pcs pencils in the picture.

INTERMEDIATE TRAINING: There are 9 differences between these two pictures.