

A special agent wears many hats—detective, scientist, psychologist, enforcer of the law. No wonder novels and shows about their work are so popular! In this badge, grab your magnifying glass and your microscope, and uncover your skills in one of the most exciting—and demanding—jobs for investigative minds.

### Steps

- 1. Investigate investigation
- **2.** Reveal reality
- **3.** Try the science
- **4.** Key in to body language
- **5.** Practice the art of detection

### **Purpose**

When I've earned this badge, I'll know secrets from the worlds of forensic science and criminal psychology.

## Step 1: Investigate investigation.

It seems nearly every drama on TV is about criminology. Nancy Drew is as popular now as when her character came to life in 1930. And these days, you can spend your summer vacation at forensic science camp. Take a look at why this is such a hot topic.

#### **CHOICES -DO ONE:**

Organize a *CSI*-themed night for your group, friends, or family. Watch one episode of a crime scene or other investigation show. Play a game along with the show, like tracking the forensic tools and techniques used: luminol, profiling, field gadgets, and lab equipment. Or make up a game that zeroes in on forensic psychology or archaeology.

### OR

Host an "Identity Crisis" party. Fingerprint yourself and your guests. After everyone has been printed, identify the types of prints each person has. (There are about seven types; many websites have information.) Keep a tally and discuss the findings. Is one type more common than others? Is one type rare? Create a collage or catalog of the fingerprints. For More FUN: Play detective games like Clue, and serve finger food.

### OR

Play Jane Bond. Women have a history of being amazing special agents, both in reality (Julia Child worked for the Office of Strategic Services during World War II) and in fiction



(detectives Miss Marple and Enola Holmes). Read a book about a real or fictional female special agent (detective, crime investigator, forensic scientist, or code-breaker) and share some of her spy or detection techniques with friends.

## Step 2: Reveal Reality.

You see this scene constantly on medical shows: The heart monitor flatlines, and the nurses and doctors grab the defibrillator paddles. In truth, a defibrillator is used to steady a rapid or erratic heart rhythm, not restart a flat one! Search out similar myths and realities about forensics.

#### CHOICES -DO ONE:

Interview someone in forensics. Visit a police department's forensics office, and find out about jobs in the department. What looks the same as on TV, and what's different? Ask the staff about their educational backgrounds, what they like about their jobs, the strangest things they've seen—and what they find amusing from TV! (If you can't visit, arrange for someone to speak to your group, or interview them on the phone. You could also find an expert in the coroner's or medical examiner's office, or a journalist with a police beat.)

#### OR

Try the eyewitness challenge. Have someone run into your meeting room, grab an item or ask a question, then leave in a flash. Then have every girl write down everything she remembers about the person. Compare reports, then have the person come back. How accurate was your "eyewitness testimony"?

For More FUN: Make and compare composite drawings (sketches of the "suspect")—or maybe ask a sketch artist to come in and give tips.

#### OR

Make some impressions. Get a group together. Have one half be the "suspects" and ride bikes or walk through sand, gravel, or light mud. The other plays "detective" and tries to match each suspect's bike tires or shoes to the tracks or footprints.

For More FUN: Switch roles!

# **Sidebar: How To Fingerprint**

Gather some friends, and, using clear tape, a No. 2 pencil, two pieces of paper, and a magnifying glass, have each girl rub the pencil on a piece of paper until a dark smudge appears (this is graphite). Beginning with the little finger, rub it on the smudge until the



fingertip is covered with graphite. Then place a small piece of tape over the fingertip. Press the tape down gently. Carefully remove the tape and stick it on a clean, white piece of paper. Record which finger the print came from, and repeat the process for the other fingers.

## Step 3: Try the science.

From the biology of insects that can determine time of death to the precise physics that determine a bullet's trajectory, forensic experts need to know all types of science. Experiment with how forensic specialists use one of these classic sciences.

#### **CHOICES -DO ONE:**

Forensic chemistry. Chromatography is the process forensic scientists use to separate the parts of a mixture so their individual parts can be analyzed. The method can be used to detect poisons or drugs present in a body, to find traces of explosives, or to identify ink in stains or ransom notes.

#### OR

Forensic physics. Ballistics and blood spatter analysis can be used to figure out the path and direction of a bullet or another impact.

#### OR

Forensic biology. Every person's DNA is unique, so DNA evidence can be used to identify a suspect or a victim. Or, if you have the help of an expert and a serious interest in biology, try an experiment in DNA "fingerprinting," or profiling.

## Step 4: Key in to body language.

Detectives often need to keep their feelings and ideas under wraps while they talk to a suspect. How do these experts keep their cool in an interrogation, and how do they read the body language of others?

#### CHOICES -DO ONE:

Find out about "tells." Unconscious face and body movements that indicate untruths are known as "tells." Card players use them as an important piece of their game strategy—eliminating tells is using your "poker face"! Research common tells, then host a card-game tournament to see tells in action. What are yours? Can your newfound knowledge help you make them less obvious?

OR



Research body language. Want to appear confident? Make strong eye contact, and don't jiggle your feet, legs, or fingers. Don't want anyone to know you're angry? Unclench your fists. Find out what body gestures and positions mean, then look at photos in magazines. If you were interrogating the people in the photos, what would their body language tell you? For More FUN: Videotape yourself or look through photos of yourself. What messages are you sending the world?

#### OR

Check out voice analysis. It's not just body language that separates lies from truth. A suspect's tone of voice can speak volumes. Do a little research on this, then tape and analyze your own voice in different conversations under different circumstances. Can you tell when you were stressed or excited?

# **Step 5: Practice the art of detection.**

Having a career in forensics doesn't always involve chemistry, biology, math, or physics. Your artistic talents could translate into a career as a forensics photographer, artist, or sculptor. You could write scripts for all those TV shows we've been talking about. You could be a spy—or just dress up like one!

#### CHOICES -DO ONE:

Write a scene or script for your own forensic-science drama. What is the crime, how will it be solved, and who will solve it?

For More FUN: Perform your script for an audience.

#### OR

Sketch or sculpt a "suspect" or photograph a "crime scene." Have someone describe a person you've never met and sketch or sculpt that person. Or stage a crime scene, and take detailed photos. See the FBI's *Handbook of Forensic Services* for descriptions of how to photograph and sketch for forensic purposes.

#### OR

Create or re-create a spy scenario and design a disguise. The trick is to dress up enough to cover your recognizable features and to blend into the environment in which you'll be sleuthing. Go for costume, makeup, and hairstyle—get as detailed as you'd like! Ask your Girl Scout friends to do the same, and critique each other's disguises.

## Now that I've earned this badge, I can give service by:



- Suggesting a great detective novel to friends
- Showing a Junior working on her Detective badge how to fingerprint
- Sharing excitement about forensic science careers

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