



SCIENCE CAREER
ADVENTURES



John the Forensic Scientist: Solving Crimes with Science

Who is John?

Hi guys. I am John, and I am a forensic scientist. A forensic scientist analyzes physical evidence collected from a crime scene, like blood, hairs, or fingerprints.



Forensic scientists have many different jobs. Some conduct experiments in a laboratory. For example, you can create a chemical reaction to identify unknown powders from a crime scene. Other forensic scientists go to the scene of the crime to collect and document evidence.



How I Became a Forensic Scientist

In middle school and high school, I took science classes and joined clubs that inspired me to become a forensic scientist!

In Middle School

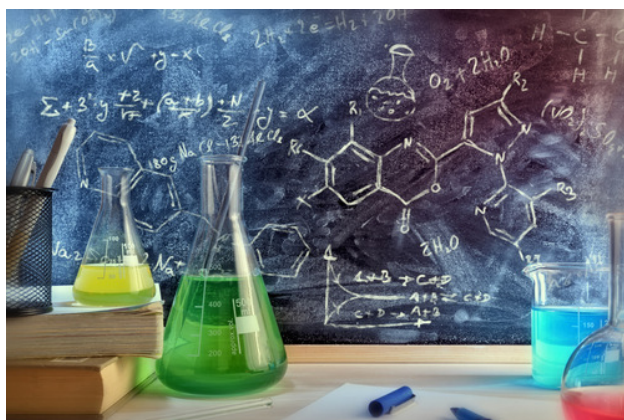
I was in the CSI (Crime Scene Investigation) club that met each week to solve a crime. One time, our teacher set up a murder scene that included a knife, scissors, and broken glass, but we couldn't see any blood!

We learned that when the chemical luminal reacts with blood, it creates a new substance that glows bright blue. When we sprayed the weapons with the chemical, we could see blood on the scissors!



In High School

I took all of the science and math classes that my high school offered! Many of the classes were very tough, but I worked hard and studied until I understood the topics. I especially loved learning that when I put the right chemicals together, they reacted to form a new chemical.



What I am Working On

I just graduated from college with a degree in forensic science. During college, I conducted many experiments to see which chemicals react with each other and which ones do not. When chemicals react, they form a new chemical. Now, if police find a mysterious chemical at a crime scene, I can conduct an experiment to see what it reacts with and figure out what chemical it is.



Professor Quinlan explains that I can look online to find jobs in forensic science. She suggested I look on Indeed, which is a website where you can look for jobs. Then, Professor Quinlan explains I will need to write a cover letter and resume.

Tips from Professor Quinlan:

- Show why you are passionate about applying for the job.
- Explain your strengths in your cover letter. I will be talking about my in-depth understanding of chemical reactions and how I like working in a team.
- Make sure there are no typos on your resume or cover letter.
- Have 2 references. References are people that can tell an employer that you are knowledgeable and trustworthy, and that you would be a great fit for the job.

Job Posting

Here is one job that I found that I am excited to apply for.

Company Name:

State Crime Lab

Job Description:

Work in a laboratory and perform chemical and tests on evidence from crime scenes to help police solve crimes. Evidence may include the following: hair, fibers, paint, glass, paint chips, and unknown substances.

Key Responsibilities:

- Analyze evidence that has been collected by crime scene investigators.
- Use chemical reactions to identify unknown substances.
- Interpret data and results of the chemical reactions.
- Keep the lab area clean and repair/maintain equipment.
- Attend trials to report on the findings of the evidence.

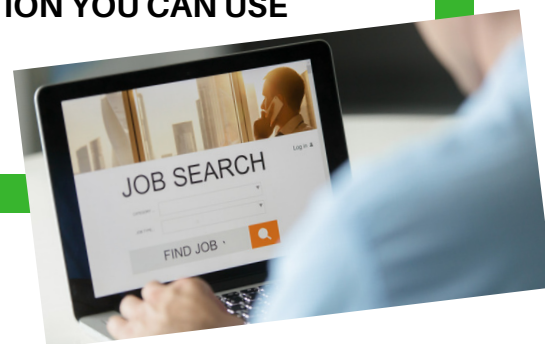
Qualifications:

- Must have a bachelor's degree in chemistry, forensic science, or a related field.
- Team player (Forensic scientists work in a team to conduct experiments.)
- Must have an in-depth understanding of chemical reactions.
- Organized (Forensic scientists need to write down detailed notes when making observations during an experiment.)

Salary:

- \$65,000 plus benefits

PLEASE SUBMIT A RESUME AND COVER LETTER. MAKE SURE YOU INCLUDE AN EXAMPLE OF A CHEMICAL REACTION YOU CAN USE TO SOLVE CRIMES!



Cover Letter

A cover letter is a document that explains why someone is interested in applying for a job and what qualifications he or she has.

December 5th, 2018

John Spriggs
4230 E. Taylor Road.
St. Louis, MO 63143

Dear Hiring Manager,

I am excited to apply for the forensic scientist position at the State Crime Lab. I just graduated with my bachelor's degree in forensic science.

In college, I worked in a chemistry lab where I ran experiments. I learned that if you combine the right chemicals, they will react to form a new chemical. I also learned how to tell if a chemical reaction has occurred.

Here is an example of how I can use a chemical reaction to solve a crime. When police arrest a drug dealer, they often find substances or powders that they may suspect are illegal drugs. I can test the powder using a chemical called Marquis reagent because it will react with the powder if it is an illegal drug. I will know if the reaction takes place because the new chemical that is formed will be purple or blue. If the powder does not react, it will not change color and is not an illegal drug.

I am passionate about starting a career in forensic science and think I would be a great fit for the position. Thank you for your consideration.

Sincerely,
John Spriggs

Employers read cover letters so they can have a short summary of your qualifications and why you are excited to apply for a job. Employers get hundreds of applications, so it is important for a cover letter to stand out!



Resume

John Spriggs

Education

Bachelor's Degree in Chemistry, Indiana University
3.87 GPA

Neva Newman High School
3.2 GPA

Experience

Chemistry Lab Assistant (2016-2018)

- I worked as a lab assistant in the chemistry lab for two years. I prepared chemicals for experiments, washed and cleaned all of the equipment, and organized all of the chemicals and made sure they were stored properly.

Young Scientists Club (2015-2018)

- During my senior year, I was the president of the Young Scientists Club at Indiana University. I organized field trips for students to interview STEM professionals. I also organized "shadowing days" where students could work in biology and chemistry labs for a day to learn about what it is like to be a scientist.

References

- Professor Robert Sherwin (supervisor of my chemistry lab)
email: rsherwin@indianauniversity.org
- Professor Janice Quinlan (advisor and teacher for my chemistry classes)
email: jquinlan@indianauniversity.org

Why are Resumes Important?

Resumes show employers what grades you got in school and what jobs and experiences you have had. A resume is like a summary that employers can quickly read through to see if you are qualified for the job. Then, employers can decide if they want to interview you for the job.

