

ENQUIRING MINDS
EQM EP 5 SEG 1

GIRL: When I grow up...

BOY: I would like to be an animator.

GIRL: A marine biologist.

GIRL: An artist.

BOY: A forensic scientist.

GIRL: A zoo keeper.

GIRL: I want to be a photographer.

BOY: A chef.

GIRL: An author.

BOY: Teacher.

BOY: A surfer.

BOY: Video game designer.

GIRL: A doctor.

GIRL: A fashion designer.

BOY: A builder, cartoonist or stunt man.

VOICE-OVER: Join our reporters as they check out some great jobs, meet interesting people, and go on some cool adventures. Enquiring Minds shows you that you can have fun while following your dreams through higher education.

HOLLY: Hi, and welcome to the show. On this episode Lockie heads back in time with Amber as they unravel the mystical world of ancient Egypt. But first, Sacha and Ben work side by side with a real life crime scene investigator.

SACHA: When the police arrive at a crime scene they have to make sure that they don't disturb any of the evidence before the forensics people get there. From fingerprints to the small fibres left behind from clothing, these can all add up in helping provide clues to help solve the case. It's a job that has to be done really carefully and I'm about to meet someone who really wants to roll up their sleeves and become a crime scene detective. Ben, I'd love to know how you decided you want to become a crime scene detective.

BEN: Well, when I was younger I started watching 'Bones' and then I thought why not get my own fingerprint kit and I just started having some fun.

SACHA: That's amazing and it looks like you actually have a crime scene happening right here.

BEN: Yeah.

SACHA: Can you show me?

BEN: Yep, come in.

SACHA: Wow, this is awesome.

BEN: So I've got the note pad here.

SACHA: Yep.

BEN: And what you do, you stamp your finger in here.

SACHA: Yep.

BEN: And then put it in the corresponding box.

SACHA: Fantastic.

BEN: And you will have the fingerprint. So what you do is you compare it with multiple fingerprints throughout the book.

SACHA: That's really cool. Do you actually want to meet a forensic scientist?

BEN: Sure.

SACHA: Yeah, let's go meet him.

GLENN: Crime scene investigation can be a whole range of things. Working in a laboratory on a parcel that comes through the Australian Post to a major scene in a multiple murder.

SACHA: Hi, Glenn, nice to meet you.

GLENN: Pleased to meet you.

SACHA: Can you tell us a little bit about this facility?

GLENN: It's designed to allow our forensic science student to experience first hand what it's like to actually process and investigate crime scenes.

SACHA: Wow, that's cool.

BEN: What were your favourite subjects at school that got you into the forensics job?

GLENN: Well my two favourite subjects, they might sound a bit geeky, but they were mathematics and science. I first started out studying photography and then I moved into science and then in post-graduate studies I completed a Master of Applied Science Photography and that lead me into forensic photography and I was lucky enough to get a position with the Australian Federal Police and that really enhanced my interest and expertise within that field of forensic science.

BEN: Why do we need to wear these?

GLENN: It's very important when we enter crime scenes, Ben, that we don't contaminate the scene. These suits are more realistic or more like the reality unlike what we see in television when crime scene investigators are dressed in designer clothes.

BEN: Yeah.

GLENN: The crime scene investigator's job isn't to solve the crime and particularly not to solve the crime within 60 minutes of the time slot of the TV shows. It's wrong to go into a scene with that expectation that you're going to solve a crime. So the report that we received from police is that a laptop has been

stolen from a child's bedroom. So what we're going to do is go into that scene and look for any evidence that may lead us to the suspect. Let's go.

SACHA: So Glenn, how do you know what to look for?

GLENN: What we're trying to do is first of all establish what happened and whether a crime has been committed and then look at certain items that we might want to collect. But the principles of crime scene investigation is the detection, the collection and preservation of the evidence. What's really important when you're processing scenes and when you're giving evidence in court is that forensic scientists must be a disinterested expert, meaning they're not there for the accused or they're not there for the prosecution, they're there just to give the facts as they know them. Okay, Ben, now what we need to do first of all is to label the evidence.

SACHA: Glenn, what is this powder for?

GLENN: This is for fingerprinting and what we're going to do is fingerprint this window. The idea of the powder is that it will cling to the fingerprint deposit on the glass. Here we go, here's some here. Now to take some DNA samples first of all we're going to try to pick up some skin cells along the door handle. We'll also swab around the rim of the bottle for any saliva. Okay, now what we'll do now is go to the lab and do some analysis of this evidence. Within a forensic science degree you are a scientist first. So any area that sort of involves science and the investigation is applicable to forensic science. Subjects like sports doping, environmental issues, illegal dumping, being a police officer working as a detective also requires an understanding of forensic science. So a degree in forensic science offers a lot more than just criminal investigations, it offers a range of science applications that students can apply.

Okay, Ben, now the hair that we collected at the crime scene we've actually put now in a polarising microscope. We can look at the internal structure of the hair. We can tell whether it's human or animal.

SACHA: Glenn, are hairs unique to different people or are they all basically sort of like the same?

GLENN: The DNA in the hair root can be considered as individual but the characteristics of the hair is not considered as individual.

The key things you need to be a successful crime scene investigator is to be methodical, in many respects to be - have a scientific mind or have a scientific approach but to take care and notice the details is a really important attribute to crime scene investigation. Okay, now what we're going to do is use the Pathfinder to electrostatically lift any foot marks that may have been on that newspaper that we collected at the scene.

BEN: How has technology changed in crime scene investigation over the years?

GLENN: This is a good example of one of the techniques we use, usually at the crime scene. This technique is often used in bank robberies if the suspect's actually jumped up on the bank counter. This is a sheet of Mylar film. So what's happening now is that the Mylar film is being charged by the Pathfinder. Any dust on the surface of that paper is transferring on to the black side of the Mylar film. Here we go. See something, a heel print there, there's another print here. Can you see that?

BEN: Yeah. That's amazing.

SACHA: How does that help in actually finding the suspect?

GLENN: Well first of all you need the shoes so you have to find the suspect first and then examine the shoes and that forms part of the brief of evidence or the evidence that we might use for prosecution. Now what we're going to do now, Ben, is going to fingerprint that bottle that we collected at the scene and we're going to use a fluorescent powder this time. If we find any fingerprints we examine that fingerprint under a special forensic light.

SACHA: Glenn, how much has the facility in this lab actually helped in training people in this sort of profession?

GLENN: What it does, Sacha, it gives them real life experience and the thing with crime scene investigation it's about dealing with very complex scenes and trying to narrow it down to the very important objects and items or the evidence. So the only way you can really get experience with that type of process is by doing it first hand. Okay, Ben, if you'd like to turn off the lights in the lab and we'll go over to the poly light and examine this under the poly light.

BEN: Whoa.

GLENN: There we go, we have a print there.

BEN: Wow.

GLENN: So we have fingerprints on the bottle but you've also collected some saliva hopefully with a DNA swab.

BEN: So what's the next part of your job?

GLENN: Well with this part of the evidence what we would do is photograph the fingerprint, we'd photograph that footprint that we had as well and then we

would take those photographs and send them to another forensic expert in shoe mark and fingerprint identification.

Life is always a journey of learning and as techniques improved there's always opportunity to engage in research, engage in different methods and techniques and crime scene investigation is a very exciting field to be in because of that - for that reason only.

BEN: I'd love to be a crime scene investigator in the future because I love doing forensics and it's just been amazing seeing all the ways you can find evidence around the place.

SACHA: It's been really fun hanging out with Glenn and learning what to do in a crime scene and I think we just might be seeing Ben putting on a lab coat again in the near future.

HOLLY: Coming up – Lockie heads back through the sands of time to the land of the pharaohs.

END OF TRANSCRIPT