

meet an in2science mentor

Read about
Mentor Lori who
is doing a PhD
in Chemistry,
interviewed by
Year 8 students
from partner
school Balwyn HS



What inspired you to study science?

I was very lucky in high school to have a teacher who was very exciting teaching science. He made it fun and enjoyable with all the different experiments and explosions he showed us. Saying that, I don't think I was very good at science but I pursued it anyway thanks to my teachers. I am really glad that I did.

What aspects of your field of science are exciting?

My chosen field is Chemistry and I really enjoy coming in to Uni everyday as I am constantly learning new things. As part of my project I am working on compounds that will hopefully be used one day to treat cancer. I think it is really exciting that something I make could be used to treat a disease or condition around the world.

What is life like as a person who does lab research?

Lab research can be both extremely rewarding when you make a breakthrough and frustrating when experiments you try don't work as you had hoped. You are constantly thinking and assessing and trying to improve the outcome of your experiments which can be challenging. However, when you succeed it is great to know it is all down to your hard work.

Where do you see a doctorate/professorship leading you in the future?

I have only just started studying for my PhD and there are lots of options currently open to me including academia and working in industry. I hope to travel and work overseas once I finish my study. At the moment I would like to find employment as an academic.

How hard is it to get a degree in Science?

It is a lot of hard work but I had a great time during my degree. I had lots of hands on experience in biology, physics, biochemistry, and my favourite, chemistry. There are always people willing to help you to succeed whether it is lecturers, demonstrators or fellow students.

What subjects should I take at school to help get into a Science degree?

In high school I took maths, chemistry, biology and physics. Maths is very important when it comes to science; I use it every day in the lab.

www.in2science.org.au



Criminal Ink!

CRIME SCENE DO NOT CROSS

a chemistry
activity
for y5-7

Hello,

This activity is for you to try at home with your child and we hope it is both a fun and rewarding experience. Also included is an interview with one of our Peer Mentors undertaken by students at one of our partner schools.

Have fun!

- The In2science Team

Who are we?

The In2science Peer Mentoring in Schools program places volunteer university students as scientists and mathematicians in the classroom. Their role is to help inspire the next generation by being a role model to them of the importance of science, maths and learning.

In2science proudly funded by



Criminal Ink

aim

Catch a criminal by matching the ink from a ransom note to the writer's pen

what you need

An empty glass jar

Some black texters

Several pieces of paper towels (white)

Scissors

A pencil and some sticky tape/ bulldog clip to hold it in place (if your hand gets tired)

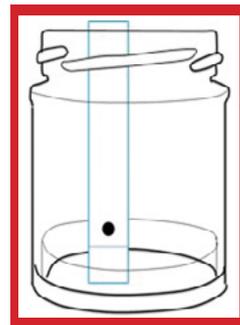
time involved?

Less than 30 minutes

instructions

At the crime scene, police have only one clue from a thief who has stolen a priceless jewel. It is an 'x' written in black ink on a paper napkin. Can you find out what pen he used to write the note and catch the thief?

- Cut the paper towel into strips (1-2cm wide, the height of your glass jar)
- On each strip of paper towel draw a large dot using one of the pens about 2cm from the bottom
- The 'criminal' should use one of the pens to make an x on one of the strips, but don't let anyone know which one!
- Put about 1cm of water in the bottom of the jar.
- Tape/ clip the end of the strip to the middle of the pencil
- Lower the strip into the jar so the dot is just above the water level
- Wait and watch what happens to the coloured dot



Compare all strips with dots to the strip with the x, which pen did the criminal use?

what's happening?

Black ink is a mixture of other different coloured inks. Some of them dissolve in water easily, some of them don't. By putting the inky paper towel in water the inks that like being in water travel further up, separating from the ones that dissolve less easily. This process is called chromatography. This comes from the Greek words 'chroma' meaning colour and 'graph' meaning writing.

further investigation

You can try some other coloured pens. Most texters have inks made of several colours mixed together. If any of the inks don't spread upwards it is because they don't dissolve at all in water.

 You could try using methylated spirits instead of water, but only with the help of a parent.