

A SCIENTIST JUST LIKE ME



Dr Magdalena Wajrak
Chemist

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Hi there! I am Dr Magdalena Wajrak – a chemist



Where do I work?

I work at Edith Cowan University in Perth, Western Australia, where I teach chemistry and investigate how to detect toxic (poisonous) metals in the environment.

What did I like doing when I was at school?

From the age of 9-10, I was really fascinated by chemistry and physics at school. At that age, I wanted to be a teacher like my mum.

What do I like doing in my spare time?

I have lots of different hobbies, such as kayaking, mountain biking, Polish dancing, bush hiking, and gardening. Recently, I have started to learn how to play the drums.

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What do I do as a chemist?



My job involves teaching university students chemical concepts. I also develop chemical methods to detect low level concentrations of toxic (poisonous) metals, such as arsenic, lead, copper, mercury in water and soil.

How does what I do make the world a better place?

Some areas of the world (for example, Bangladesh) have extremely high levels of arsenic in the groundwater. This is the main source of drinking water in Bangladesh so millions of people are exposed to arsenic which causes cancers and even death. My research helps to determine which areas of groundwater should be avoided.

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What I like about my job

What I like the most about my job is that I get to help students understand chemistry. I also get to do interesting research, which can directly help people, like ensuring they avoid contaminated soils and water. I also travel to interesting places, such as Inner Mongolia in China.

Challenges I have faced

The biggest challenge I have faced during my education journey has been when my parents decided to migrate from Poland to Australia when I was 12 years old. I didn't speak a word of English and I struggled in school, but my love for science helped me.



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If you want to be a chemist, you need:

- ✱ **to be curious** about chemical processes that we experience all around us everyday, e.g. what makes things go rusty
- ✱ **to be interested** in understanding what everything is made from
- ✱ **to enjoy discovering** properties of substances, for example what happens when you mix oil with water
- ✱ **to have great observational skills** and be very detailed and accurate



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Discussion time

- ✦ Would you like to be a chemist like Dr Magdalena Wajrak?

Why? Why not?



- ✦ What skills and interests do you already have that would help you become a chemist?
- ✦ What new skills and knowledge would you need to develop?

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Dr Magdalena Wajrak is a STEM ambassador. Click [here](#) to access free STEM Ambassador support and resources.

Free supporting resources for chemistry

Starters for science – See 'Paper flowers' and 'Colourful ink'

I bet you didn't know... articles use cutting-edge science research as a context for learning. Teacher Guides can be used as classroom presentations. See:

- How to clean water using a molecular sieve
- The disastrous effects of historical ink
- Slug slime might be the answer for medical adhesives



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