

Dr Fangxian Fang
Earth scientist



#### Hi there! I am Dr Fangxian Fang – An Earth scientist

#### Where do I work?

I work for the Department of Earth Science and Engineering at Imperial College London.



#### What did I like doing when I was at school?

I have always enjoyed mathematics, physical science. I especially liked doing scientific experiments.

### What do I like doing in my spare time?

I listen to music and watch TV. I also enjoy cooking for my family.

#### What do I do as an Earth scientist?

I solve difficult maths equations that are used within programme codes. We use this to help us model the world around us because it is very complicated to understand in detail. Earth scientists may study the Earth, its waters, and the air around it.



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

I develop software tools to help manage flooding across the world, predict tsunamis in the future and track pollution to help prevent floods. The mathematical tools we develop help us to manage a safe, comfortable and healthy environment in our cities.



#### What I like about my job

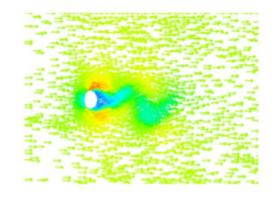
It is amazing when I can create different simulations, like flooding, by using computer codes and software. I am happy to use my scientific knowledge and skills to help make our home a safer and cleaner world.

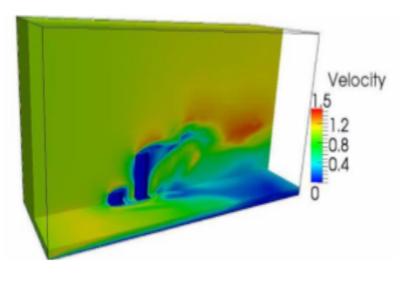
### Challenges I have faced

I always find my knowledge is not enough to tackle the challenges in my work. To overcome this, I always keep working hard to find new solutions to difficult problems.

### If you want to be an Earth scientist, you need:

- \* to be interested in the physical world around you and how it works
- \* to have a positive and curious attitude
- \* to be able to tackle problems differently and think of different solutions
- \* to learn to code so you can make things happen on your computer





#### **Discussion time**

\* Would you like to be an Earth scientist like Dr Fangxian Fang?

Why? Why not?



- \* What skills and interests do you already have that would help you become an Earth scientist?
- \* What new skills and knowledge would you need to develop?

#### Free supporting resources for Earth science

<u>Air Pollution Research</u> – resources to support primary children (ages 9-11) to investigate atmospheric pollution in the UK using Defra's Air Data Archive

<u>I bet you didn't know...</u> articles use cutting-edge science research as a context for learning. Teacher Guides describing the research and activities and investigations for children can be used as classroom presentations:

- What happens underground when humans stay indoors
- Computers can measure the happiness of a city



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