ABOUT US

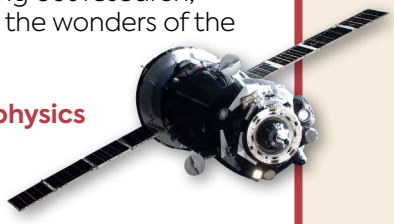
DR JOHANNA VOS
Astrophysics

60 MINS

MEET THEM

15 MINS

Johanna is an Astrophysicist at the American Museum of Natural History in New York City. She studies weather patterns on planets orbiting stars outside of our solar system, called exoplanets. She earned a Bachelor's degree in Physics with Astrophysics at Trinity College in her home city of Dublin. Next, she spent 4 years at the University of Edinburgh earning a PhD in Astronomy from the Royal Observatory of Edinburgh. Since then, she has lived and worked in New York City carrying out research, mentoring school and university students and sharing the wonders of the Universe with the public.



First watch Johanna talk about her career in Astrophysics

Discuss:

- Do you have any thoughts about the video?
- What do you think of Johanna's career?
- What do you think is the hardest activity to do in space?

ACTIVITIES

40 MINS

MAKE

Ingredients: internet access, marshmallows, cocktail sticks, pen and paper (or somewhere to take notes)

In Johanna's video, she talks about La Silla Observatory in Chile, where astrophysicists can observe the stars more easily. In this activity, you will take a closer look at the stars and the constellations they form. A constellation is a group of stars that form an outline or pattern.

1. Head to stardate.org and choose one of the constellations from this webpage.
2. Now recreate your chosen constellation with marshmallows and cocktail sticks. The marshmallows will represent stars and the cocktail sticks will represent the outline of your constellation. You can snap the cocktail sticks into smaller pieces to recreate your constellation.
3. Now find out more about your constellation.
   - Do any of the stars in your constellation have names?
   - How many lightyears away are the stars in your constellations?

Tip: Instead of marshmallows, you could use plasticine or play dough.

OR

EXPLORE

Ingredients: pens, paper, colouring pencils

Johanna's career involves looking for planets that are outside of our solar system. In this activity, you will design your own planet for Johanna and other astrophysicists to discover. Think about which galaxy your planet is in.

1. Is there life on your planet? What does it look like?
2. Is your planet a rock or a gaseous planet?
3. What is the temperature on your planet?
4. Does your planet have any rings? What colour is your planet?

Draw your planet and add labels so we can all find out more about your planet.

NEXT STEPS...

If you're aged 4-18 and you're inspired to create a Scratch project on the themes covered here, submit it to the About Us coding competition by 23:59 GMT on 19 December 2021 for a chance to win some amazing prizes. You can also enter the poetry competition on the same theme by submitting a poem. Find out more and enter online at aboutus.earth.