

Dr Nita Patel

Vaccinologist – Novavax

30-60
minutes

Image source

Starters

5-10
mins

Did you know an amazing woman helped fight COVID-19? Dr Nita Patel led the team that created the Novavax vaccine! She's a scientist and a leader in making life-saving vaccines.

She is dedicated to vaccine development because her dad had tuberculosis.

Watch this **video** to learn how she has supported the development of a potential new vaccine. What do you think about Dr Nita's work?

Video Transcript – Summary



Dr. Nita Patel, a senior director at Novavax, led a team that developed a COVID-19 vaccine in just 10 months, working long hours and managing a multidisciplinary team of experts. Her passion for vaccines, driven by her father's tuberculosis, has fuelled her career in developing vaccines for diseases like the flu.

Early clinical trials showed promise, with the virus failing to replicate in monkeys' noses. The company aimed to produce 2 billion doses in 2021, relying on partners like the Serum Institute of India. Patel was eager to receive the vaccine herself.

Questions

1 Imagine being on a team like Dr Nita Patel's, developing a vaccine.

What special ability would help you solve problems more quickly?

2 Why do you think working as a team, like Dr Patel's group of experts, is important when solving big challenges like stopping diseases?

3 How long does it usually take to develop a vaccine?



Your next adventure starts here! Meet inspiring role models like Nita at a [Stemettes Event](#).

30-60
minutes

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Image credit

Main Course



20 mins 1 activity
40 mins 2 activities

Make



Cells and viruses are very small. Because of this, scientists cannot use centimetres (cm) to measure them; they need to use micrometres (μm) instead.

In this activity, we will examine how small cells and viruses are compared to each other. Using the conversion, $1\text{ cm} = 1000\ \mu\text{m}$. Draw out each of these items so you can see how small they are:

Coronavirus = $0.1\ \mu\text{m}$
Bacteria cell = $1-3\ \mu\text{m}$
Red blood cell = $7\ \mu\text{m}$
Pollen particle = $15\ \mu\text{m}$
White blood cell = $25\ \mu\text{m}$
Human hair = $50\ \mu\text{m}$ (up to $180\ \mu\text{m}$)

Ingredients:

- Colouring pencils
- Ruler
- Paper
- Pens

Explore



Dr Nita Patel worked hard to create a vaccine to protect us from coronavirus. But have you wondered how vaccines actually work?

Your challenge is to create a storyboard that shows how scientists create vaccines in labs, test them for safety, and how they help your body stay healthy!

Ingredients:

- Colouring pencils
- Paper

Dessert

5 minutes

Show and Tell

Spread the fun and excitement by sharing the challenges you've been exploring with your friends and family.