

MICROBIOLOGY WITH DR CYNTHIA NAU CORNELISSEN

TALKING POINTS

KNOWLEDGE:

1. What is gonorrhoea and what causes people to be infected?
2. How many people are infected by gonorrhoea in the US each year?
What about globally?
3. What problems can gonorrhoea potentially lead to in patients?

COMPREHENSION:

3. Why is it important for researchers to find a means of vaccinating against gonorrhoea?

APPLICATION:

4. How might blocking nutrient transport help in Cindi's quest to combat gonorrhoea?

ANALYSIS:

5. What do you think about the problems surrounding antibiotic resistance? Can you think of any other conditions and infections that might be more problematic if they develop resistance?

SYNTHESIS:

6. How would you justify the need to find a vaccine for gonorrhoea if you had to? Discuss the potential problems that could occur in the future if one is not developed.

EVALUATION:

7. Cindi discusses the importance of training the next generation of scientists and why that is essential in combatting the issues of the future. How does this relate to coronavirus and possible viruses that could emerge in the coming years? Can you give your own reasons why helping the next generation of students is important?

ACTIVITIES YOU CAN DO AT HOME OR IN THE CLASSROOM

- Write a 60-second speech explaining to your class why Cindi's research is significant – remember to select key information and quotations from the article to support your ideas.
- Do some research into the different areas within microbiology:

Bacteriology – the study of bacteria

Immunology – the immune system

Mycology – fungi

Nematology – nematodes

Parasitology – parasites

Phycology – algae

Protozoology – protozoa

Virology – viruses

Choose the one that interests you the most and explain what researchers might be working on within that particular area in the future.

MORE RESOURCES

ANTIBIOTIC RESISTANCE

This game is an interactive exploration of antibiotic resistance and helps explain the nuances of bacteria and how they mutate and develop resistance.

www.brainpop.com/games/antibioticresistancegame/

The Microbiology Society's booklet on antibiotic resistance contains a range of resources and should get you thinking about the challenges a career in this field could see you tackling:

microbiologysociety.org/publication/education-outreach-resources/antibiotic-resistance-a-challenge-for-the-21st-century.html