



SUBATOMIC PHYSICS WITH DR WOUTER DECONINCK

TALKING POINTS

KNOWLEDGE:

1. What do subatomic physicists use to focus particles onto detectors?
2. What is the smallest unit of matter that forms chemical elements?
3. Can you name two polarised ions that the Electron-Ion Collider will collide electrons with?

COMPREHENSION:

4. What will the Electron-Ion Collider enable scientists to do?

APPLICATION:

5. In which fields can particle accelerators be used to advance understanding?

ANALYSIS:

6. Why is collaboration especially important to Wouter's research?
7. Can you name some qualities that might make a good physicist? What factors might be challenging to a physicist?

EVALUATION:

8. Why do you think it is important for scientists to find out what is happening at unimaginably small scales?
9. If you were invited to be part of the Electron-Ion Collider project tomorrow, what skills and attributes do you think you would bring to the team?

ACTIVITIES YOU CAN DO AT HOME OR IN THE CLASSROOM

THE UNIVERSITY OF MANITOBA RESOURCES

The University of Manitoba offers a series of outreach activities, some of which are listed below.

LET'S TALK SCIENCE

Through its Let's Talk Science programme, the University of Manitoba aims to connect educators and young people with volunteers to deliver a wide variety of STEM learning experiences:

<https://outreach.letstalkscience.ca/umanitoba.html>

SCIENCE RENDEZVOUS

Science Rendezvous is Canada's largest science and engineering festival. Unfortunately, this year's event has been cancelled due to the coronavirus pandemic, but you should still check out the website for information on next year's event and some of the activities that typically take place:

<https://www.sci.umanitoba.ca/science-rendezvous/>

SCIENCE PUBLIC ONLINE TALKS

This year, the university started an online talk series which has already hosted 2019 Physics Nobel Laureate, James Peebles, who went to college at the University of Manitoba:

<https://www.sci.umanitoba.ca/science-public-online-talks/>

EVEN MORE RESOURCES

- The Electron-Ion Collider has its own website, where you can read more about this exciting project:
<https://www.bnl.gov/eic/>
- Brookhaven National Laboratory, which is an active participator in the project, is worth exploring for its wealth of information:
<https://www.bnl.gov/world/>