

Virtual Vent: Lesson Introduction Worksheet

Part I: Context (from Intro. To Virtual Vents video and Cruise Description)

1. How deep is the sea floor in the Niuva hydrothermal vent field?
2. What three countries surround the Niuva volcano?
3. How wide is the Niuva volcanic crater
4. What kinds of geochemical properties will scientists be looking at in the hydrothermal fluid?
5. What types of biological analyses will be done on the organisms collected at the hydrothermal vents?
6. In what ways is the deep sea environment of the Niuva hydrothermal vent field a hostile environment?
7. How does the chemistry of the water change as it seeps through the cracks in the seafloor
8. The towers and chimneys we see in the hydrothermal field are made up of what types of metals?
9. Understanding life in the extreme conditions near hydrothermal vents can help scientists explain life in what other extreme environment?
10. In what ways will mining alter the hydrothermal vent communities?

Part 2: Reflection

It is clear from the introduction and description that oceanographic cruises are multidisciplinary endeavors. Picture yourself as a part of the research crew on R/V Falkor's Virtual Vents project and write a paragraph reflection about which area of focus you would be most interested in exploring further. Include specific details that caught your attention and what you would like to further explore about these concepts.
