

Nova - Hunting the Elements Questions

Ten answers required. Additional answers worth up to 10 extra credit points.

1. Explain some of the properties of gold.
2. Why is it so hard to mine for gold and how is it done?
3. What other metals are similar to gold? Why?
4. What are some uses of copper?
5. How can copper be so important to our world?
6. How can you make copper more rigid?
7. Why don't they use pure metals for making bells?
8. Describe what the atoms in bronze look like.
9. Describe the periodic table that Theo has.
10. Give general descriptions as to where you find metals, non-metals, semi-metals, groups, etc. on the table. How is it arranged?
11. Explain the idea of relative weights.
12. How did Mendeleev arrange his first periodic table?
13. How did Mendeleev predict missing elements?
14. Why do noble gases behave the way they do?
15. What happens with sodium and water?
16. What happens with sodium and chlorine?
17. What does chlorine need to become stable?
18. What element can combine with almost all of the other elements?
19. How do we know oxygen wants electrons? How do they study this?
20. Which 6 elements are humans made of?
21. Why is carbon so amazing?
22. What can you say about phosphorus?
23. What kind of explosive was greater and faster than ammonium nitrate?
24. Why do they analyze sweat?
25. What does a microbial biologist have to do with chemistry?
26. What did cyanobacteria do for us?
27. Explain why scientists are studying fusion.
28. What does silicon have to do with glass?
29. What is meant by rare earth elements?
30. What did the shark test reveal?
31. How do scientists use isotopes of carbon?
32. How does a nuclear reactor work?