

Name:

Period:

Seat#:

The questions are in chronological order. You do not need full sentences.

- 1) Where does an element take its identity from?

- 2) How much gold (Au) is extracted per ton of rock ore?

- 3) How much does a gold (Au) bar weigh and how much is it worth?

- 4) Why is copper (Cu) so widely sought on the world market and New York Mercantile Exchange?

- 5) What is copper (Cu) combined with to make bronze?

- 6) What makes metals like Copper (Cu) conductive to electricity?

- 7) Bronze is an alloy. What is an alloy and why are they preferable at times?

- 8) How does the atomic arrangement of atoms lead to its crystal structure like was seen in the sample of bronze with gold (Au) and tin (Sn) atoms?

- 9) What is the atomic number and what does the atomic number indicate?

- 10) Most of the periodic table is made of what type of elements?

- 11) How did early chemists like Mendeleev classify the elements?

- 12) How is the periodic table structured with regard to elements with similar properties?

- 13) What makes noble gases stable?

- 14) Why is an alkali metal element like Sodium (Na) so reactive?

Dougherty Valley HS Chemistry

NOVA Video Questions – Hunting the Elements

- 15)** What does chlorine (Cl^-) do for sodium (Na^+)? What tasty substance is produced when this happens?
- 16)** What powers explosions and fire?
- 17)** What elements are basic to all living things?
- 18)** Why is Carbon (C) so good for forming the structure of life?
- 19)** What are at least three (3) other elements that are used for life functions and what are their uses?
- 20)** Why are cyanobacteria from places like volcanic pools so important for the production of oxygen in our atmosphere?
- 21)** What was the original element formed moments after the Big Bang? What then created higher order elements?
- 22)** How does silicon shape our technological reality?
- 23)** How are rare earth elements like neodymium (Nd) important to our technological world?
- 24)** What is an isotope like Carbon-14?
- 25)** How can an isotope like Carbon-14 be used to date dead organisms?
- 26)** What is an unstable radioactive isotope?
- 27)** Why don't the man-made radioactive elements exist for very long?