

Worksheet - Chapter 5 - Atomic Structure

Atomic Theory Matching

- ___ 1. The device which gave scientists their first image of individual atoms. (See Fig 5.3.)
- ___ 2. He confirmed the existence of the **neutron**.
- ___ 3. He developed the beginnings of the modern atomic theory in the 1800s.
- ___ 4. He developed an elaborate experiment that showed that the majority of an atom is **empty space**, with the majority of its mass concentrated in a tiny **nucleus**.
- ___ 5. He first suggested the presence of atoms and named them.
- ___ 6. He used a **cathode ray tube** to discover **electrons**.
7. See Fig. 5.2. If 100 000 000 copper atoms form a line 1 cm long, what is the diameter of a single copper atom? _____ m

T or F 8. There are more copper atoms in a penny than there are people on earth.

T or F 9. Atoms are so tiny, there is no way we can ever discover anything about the smaller particles which make them.

Atomic Particle Matching

- ___ 10. Nearly weightless, with a negative charge
- ___ 11. 1840 X the weight of an electron, positive charge
- ___ 12. Same mass as a proton, but with no charge
- ___ 13. They weigh 1/1840th as much as a proton.
- ___ 14. They are deflected towards the positive plate in a cathode ray tube.
- ___ 15. Discovered by Chadwick
- ___ 16. Discovered by Thomson; negative charged determined by Millikan
- ___ 17. Discovered by Goldstein
- ___ 18. Found in the nucleus
- ___ 19. Found circling the nucleus in orbital clouds
- ___ 20. All atoms except hydrogen have this particle.