Name: \_\_\_\_\_

Period:\_\_\_\_\_\_

## HW Unit 9:2 — Electricity Mr. Murray, IPC cstephenmurray.com

A-day: Due Tues., 3/20 (Assig: 3/9) B-day: Due Mon., 3/21 (Assig: 3/19)

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- 1. True or False and why: "A positive object gained protons."
- 2. A balloon pulls toward your chest and sticks. Is the balloon oppositely charged from your chest or same charge?
- 3. How do you know?
- 4. Positive (+), Negative (-), or Neutral (0)
  - A) \_\_\_\_\_ An object has 20 protons and 25 electrons.
  - B) \_\_\_\_ An object has 16 positives and 16 negatives.
  - C) \_\_\_\_ An object that has lost electrons.
  - D) \_\_\_\_\_ If it is attracted to a proton.
  - E) \_\_\_\_\_ If it gains electrons.
  - F) \_\_\_\_\_ If it is repelled by an electron.
- 9. When two protons are close to each other, A) Do they attract or repel each other?
  - B) When they are moved even closer, does the electric force get stronger or weaker?
  - C) How are protons able to touch each other in the nucleus of an atom?
- 10. If you decrease the amount of charge, does the electric force increase or decrease?
- 11. How is an insulator charged?
- 12. What do we call the spark of electricity between two objects?
- 13. If you touch a charged object to ground, what happens?

- 5. What does this symbol mean?
- 6. If a person is insulated from ground by standing on books, do they get shocked when touching the Van de Graff?
- 7. Attract or repel?
  - A) \_\_\_\_Two positive charges?
  - B) \_\_\_\_A positive and a negative charge?
  - C) \_\_\_Two electrons?
  - D) \_\_\_\_Two neutral objects?
  - E) \_\_\_\_A 4.5C charge and a 2.2C charge?
- 8. If these are repelling, find the unknown charge.
- 14. An object has a charge of 2.3 C. HW Unit 9:2
  - A) Is it positive or negative?
  - B) Did it gain or lose electrons?
  - C) If you touch it to ground do electrons come from ground or
  - go to ground?
  - D) After you touch ground, what will its charge be?
- 15. Two objects have different amounts of charge.
  - A) Do they feel a force between them?
  - B) If brought close, will electrons move?
- 16. As the difference of charge gets bigger between two object, can electricity jump a bigger or smaller gap?
- 17. Two charged objects are moved closer together, does the electric force increase (get stronger) or decreases (get weaker)/