Name: DUE DATE – TEST DATE:

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| **Applied Physics**  20 Electricity | | | | | evidence and practice  ASSIGNMENT NUMBERS FROM PORTFOLIO EVIDENCE & PRACTICE LOG |
| Status of Standard | | | | |
| Vocabulary is in bold! | | **Not Yet**  *I have no idea what to do.* | **Proficient**  *I can do it with some help and few mistakes.* | **Advanced**  *I can do it correctly and with confidence.* |
| I can… | |
| 1 | Determine what produces a net **Electric Charge**. |  |  |  |  |
| 2 | Conclude what determines whether an electric force is attractive or repulsive. |  |  |  |  |
| 3 | Tell what determines the strength of an **Electric Field.** |  |  |  |  |
| 4 | Name three ways in which a charge is transferred. |  |  |  |  |
| 5 | Determine how a static discharge occurs. |  |  |  |  |
| 6 | Define an **Electric Force.** |  |  |  |  |
| 7 | Define **Static Electricity.** |  |  |  |  |
| 8 | Define the **Law of Conservation of Charge.** |  |  |  |  |
| 9 | Define **Induction**. |  |  |  |  |
| 10 | List the two types of current. |  |  |  |  |
| 11 | Name some examples of conductors and insulators. |  |  |  |  |
| 12 | Determine what factors affect electrical resistance. |  |  |  |  |
| 13 | Determine what causes an **Electric Current**. |  |  |  |  |
| 14 | Explain how voltage, current and resistance are related. |  |  |  |  |
| 15 | Define a **Direct Current.** |  |  |  |  |
| 16 | Define an **Alternating Current**. |  |  |  |  |
| 17 | Define an **Electrical Conductor.** |  |  |  |  |
| 18 | Define an **Electrical Insulator**. |  |  |  |  |
| 19 | Define **Resistance**. |  |  |  |  |
| 20 | Define a **Superconductor**. |  |  |  |  |
| 21 | Define **Potential Difference.** |  |  |  |  |
| 22 | Define **Voltage**. |  |  |  |  |
| 23 | Define **Battery.** |  |  |  |  |
| 24 | Define **Ohm’s Law.** |  |  |  |  |
| 25 | Determine what is included in a circuit diagram. |  |  |  |  |
| 26 | Explain how **series** and **parallel** **circuits** differ. |  |  |  |  |
| 27 | Calculate **electric power** and **electrical energy** use |  |  |  |  |
| 28 | Name what devices make electricity safe to use. |  |  |  |  |
| 29. | Define **Electric Circuit.** |  |  |  |  |
| 30. | Define a **Fuse.** |  |  |  |  |
| 31. | Define a **Circuit Breaker**. |  |  |  |  |
| 32. | Define **Grounding.** |  |  |  |  |
| 33. | Explain how **electronic signals** convey information. |  |  |  |  |
| 34. | Determine how vacuum tubes control electron flow. |  |  |  |  |
| 35. | Name two types of **semiconductors**. |  |  |  |  |
| 36. | Explain how **semiconductors** are used. |  |  |  |  |
| 37. | List the benefits of using microchips in communication devices. |  |  |  |  |
| 38. | Define **Electronics.** |  |  |  |  |
| 39. | Define an **Analog Signal.** |  |  |  |  |
| 40. | Define a **Digital Signal.** |  |  |  |  |
| 41. | Define a **Diode**. |  |  |  |  |
| 42. | Define a **Transistor**. |  |  |  |  |
| 43. | Define an **Integrated Circuit.** |  |  |  |  |
| 44. | Define a **Computer.** |  |  |  |  |
|  |  |  |  |  |  |
|  | **END GOAL** |  |  |  |  |
| 45. | Use all the concepts in this unit to describe, analyze, and persist in solving problems |  |  |  |  |