Name: DUE DATE – TEST DATE:

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| **Applied Physics** 18 Electromagnetic Spectrum And Light | evidence and practiceASSIGNMENT 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 | Explain the difference between **electromagnetic waves** and mechanical waves. |  |  |  |  |
| 2 | Tell what the maximum speed of light is. |  |  |  |  |
| 3 | Determine how electromagnetic waves differ from one another. |  |  |  |  |
| 4 | Explain what the dual nature of **electromagnetic radiation** is. |  |  |  |  |
| 5 | Determine what happens as light travels further from its source. |  |  |  |  |
| 6 | Define **Electric Field.** |  |  |  |  |
| 7 | Define **Magnetic Field.** |  |  |  |  |
| 8 | Define the **Photoelectric Effect.** |  |  |  |  |
| 9 | Define **Photons** |  |  |  |  |
| 10 | Define **Intensity.** |  |  |  |  |
| 11 | Name what waves are included in the **electromagnetic spectrum.** |  |  |  |  |
| 12 | Determine how each type of electromagnetic wave is used. |  |  |  |  |
| 13 | Define **Amplitude Modulation.** |  |  |  |  |
| 14 | Define **Frequency Modulation.** |  |  |  |  |
| 15 | Define **Thermograms.** |  |  |  |  |
| 16 | Name what three types of materials affect the behavior of light. |  |  |  |  |
| 17 | Explain how light behaves when it enters a new medium. |  |  |  |  |
| 18 | Define **Transparent.** |  |  |  |  |
| 19 | Define **Translucent.** |  |  |  |  |
| 20 | Define **Opaque.** |  |  |  |  |
| 21 | Define **Image.** |  |  |  |  |
| 22 | Define **Regular Reflection.** |  |  |  |  |
| 23 | Define **Diffuse Reflection.** |  |  |  |  |
| 24 | Define **Mirage.** |  |  |  |  |
| 25 | Define **Polarized Light.** |  |  |  |  |
| 26 | Define **Scattering.** |  |  |  |  |
| 27 | Determine how a prism separates white light. |  |  |  |  |
| 28 | Name what determines the color of an object. |  |  |  |  |
| 29. | List the **primary colors** of light. |  |  |  |  |
| 30. | List the **primary colors** of **pigments**. |  |  |  |  |
| 31. | Define **Dispersion.** |  |  |  |  |
| 32. | Define **Secondary Colors.** |  |  |  |  |
| 33. | Define **Complementary Colors of Light.** |  |  |  |  |
| 34. | Define **Complementary Colors of Pigments.**  |  |  |  |  |
| 35. | List the six common sources of light.  |  |  |  |  |
| 36. | Explain how each type of light source generates light. |  |  |  |  |
| 37. | Define **Luminous.** |  |  |  |  |
| 38. | Define **Incandescent.** |  |  |  |  |
| 39. | Define **Fluorescence.** |  |  |  |  |
| 40. | Define **Phosphor.** |  |  |  |  |
| 41. | Define **Laser.** |  |  |  |  |
| 42. | Define **Coherent Light.** |  |  |  |  |
|  |  |  |  |  |  |
|  | **END GOAL** |  |  |  |  |
| 43. | Use all the concepts in this unit to describe, analyze, and persist in solving problems |  |  |  |  |