**Learning Target: I can research electromagnetic waves and create a 3D model of a device that uses electromagnetic waves.**

*Explanation*

1. You will work with two other team members to become an expert on one of the following seven types of electromagnetic energies:

* **radio waves**
* **microwaves**
* **ultraviolet light**
* **x rays**
* **infrared waves**
* **gamma rays**
* **visible light**

1. Your team will also be responsible for creating a 3D model of a device that uses electromagnetic energy. \*\*Size does not have to be to scale.
2. Your team will make a class presentation about your type of radiation. Each member of your team must have the necessary information and materials to make the presentation. Your presentation needs to be creative and your team must research the following information about your type of radiation:

a. What are the characteristics of this type of radiation?

* Wavelength
* Frequency
* Key facts

b. Where is this type of radiation located on the electromagnetic spectrum in relation to other kinds of radiation?

• What properties of the wave define why it is found within this area of the spectrum?

c. How is it used or found in our everyday lives or in certain industries?

• Identify and explain at least two uses. \*\*Uses cannot be example of 3D model.

*Your team will be evaluated on the content of your presentation and 3D model.*

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_\_

Electromagnetic Spectrum Presentation Rubric \_\_\_\_/75 Total

Team Members \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**3D Model\_\_\_\_\_/25**

Students accurately and thoroughly address each of the three presentation questions:

*Slide One:*

**\_\_\_\_/5** List the following items:

a. Team member’s names

b. Radiation type

*Slide Two:*

**\_\_\_\_/15** What are the characteristics of this type of radiation?

a. Wavelength

b. Frequency

c. Key facts

*Slide Three:*

**\_\_\_\_/10**

• Where is this type of radiation located on the electromagnetic spectrum in relation to other kinds of radiation?

• What properties of the wave define why it is found within this area of the spectrum?

*Slide Four:*

**\_\_\_\_/10**

* How is it used or found in our everyday lives or in certain industries?

Identify and explain at least two uses. \*\*Uses cannot be example of 3D model.

\_\_\_\_/10 Creativity

a. Each slide included at least one picture enhancing the presentation

b. Clarity and eye contact throughout the presentation

c. 3D is neat and resembles actual device.