DepED DEPARTMENT OF EDUCATION

Worksheet: Electromagnetic Waves (EM Wave)

Name_____Grade and Section_____ Score_____

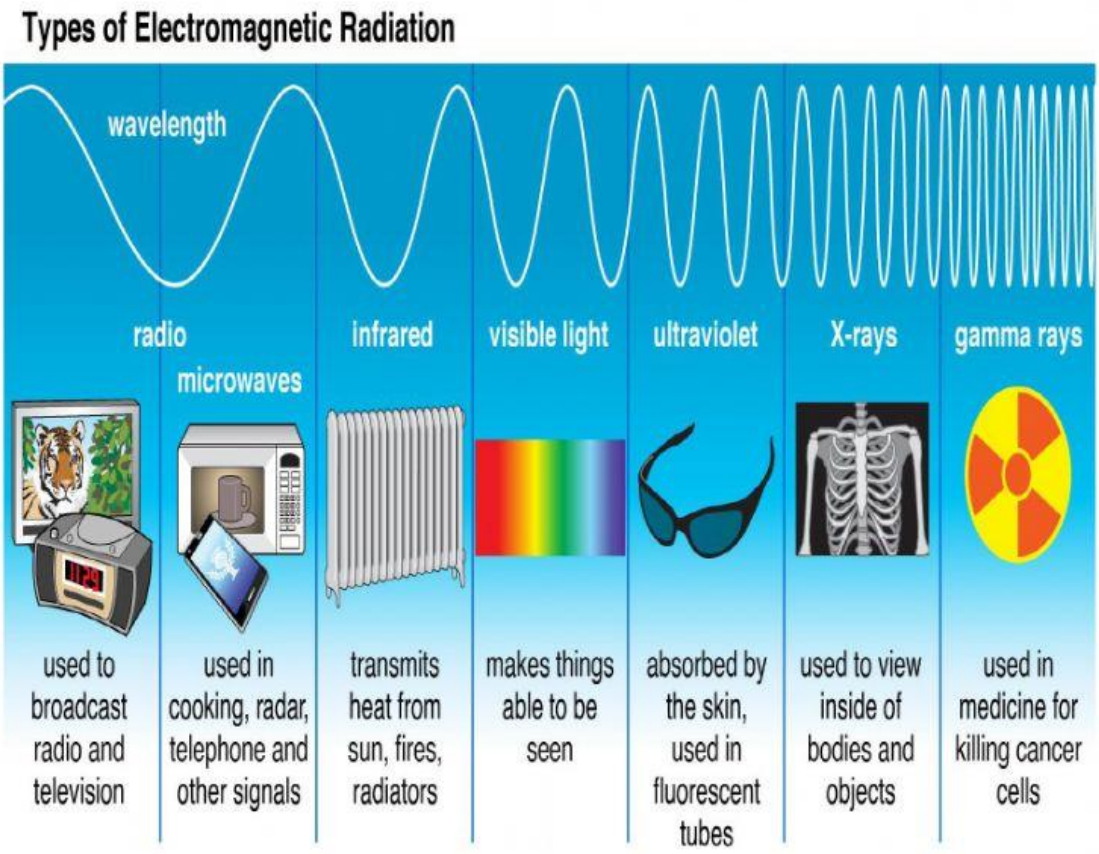
Teacher_____ School_____Date_____

OBJECTIVE:

Cite examples of practical applications of the different regions of EM waves such as the use of radio waves, infrared and microwaves

BIG IDEAS:

- All electromagnetic waves travel in a vacuum with the speed of light. These waves transport energy and momentum from some sources to a receiver. Heinrich Hertz successfully generated and detected the radio-frequency electromagnetic waves predicted by Maxwell. Maxwell himself had recognized the infrared radiation discovered by William Herschel as electromagnetic waves. It is now known that the forms of electromagnetic waves do exist. Nowadays, electromagnetic waves like radio waves, microwaves and infrared have many useful applications.
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Activity 1: Fill-in the Table

Knowing the many practical applications of radio waves, microwaves and infrared, fill-in the table by the type of electromagnetic wave used in each application is ***(a) radio wave; (b) microwave;*** and ***(c) infrared.*** Write only the letter corresponding to each application.

Types of EM Waves	Useful Applications
_____	1. long ranger communication
_____	2. car central locking systems
_____	3. electrical heaters and cookers
_____	4. fixed and mobile communication systems
_____	5. home security systems
_____	6. wireless LAN protocols such as Bluetooth
_____	7. radar for aircraft navigation systems
_____	8. autofocus camera
_____	9. wireless fidelity
_____	10. wireless computer networks
_____	11. remote controls
_____	12. air-traffic control
_____	13, global positioning system
_____	14. fiber optic cables
_____	15, military applications like night vision and target acquisition

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