Name _____

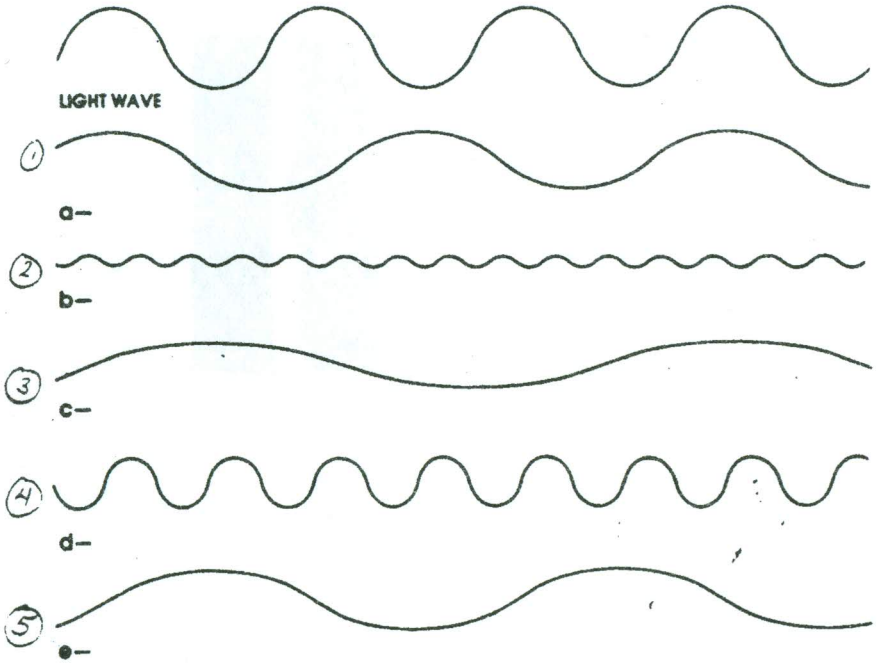
SKILL / ANALYZING

UNIT TWO
Chapter 7

Use with page 159.

Different forms of radiant energy have different wavelengths. Radio waves have very long wavelengths. Television waves have shorter wavelengths than radio waves. Infrared waves have shorter wavelengths than television waves but longer wavelengths than light waves. Ultraviolet waves have shorter wavelengths than light waves. X-rays have very short wavelengths.

The top diagram below represents light waves. Each of the waves labeled a–e represents one of the other kinds of radiant energy discussed above. Determine the type of radiant energy represented by each of these waves by using the information above and by comparing the waves to each other and to the light wave.



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Using Electromagnetic Waves

Match the statements on the left with the words on the right.

_____ 6 Used to broadcast TV programs
_____ 7. Radio waves with the highest frequencies
_____ 8. An instrument that uses radio waves to locate objects
_____ 9. Type of lamp often used to keep food warm
_____ 10. Part of electromagnetic spectrum that people can see
_____ 11. Visible light that has the longest wavelength
_____ 12 Kind of waves needed by people to produce vitamin D
_____ 13. Type of waves used to examine luggage at airports
_____ 14. Part of electromagnetic spectrum with the shortest wavelength
_____ 15 Device that produces a beam of light with same wavelength that travels in one direction

a. gamma rays
b. infrared
c. laser
d. microwaves
e. radar
f. radio waves
g. red
h. ultraviolet
i. visible light
j. X rays

Complete the table below by listing the different types of waves from longest to shortest. List one way people use each type of wave. The first one has been done for you as an example. The different types of waves to use are in the following list.

visible light, radio waves, X rays, microwaves, infrared waves, ultraviolet waves, gamma rays

	Type of Wave	How People Use
Longest wavelength	radio waves	radio and TV
16		
17		
18.		
19		
20		
Shortest wavelength 21		