

Lesson 3 Using Electromagnetic Waves

Skim Lesson 3 in your book. Read the headings and look at the photos and illustrations. Identify three things you want to learn more about as you read the lesson. Record your ideas in your Science Journal.

Main Idea

How do you use electromagnetic waves?

I found this on page _____.

Radio Waves

I found this on page _____.

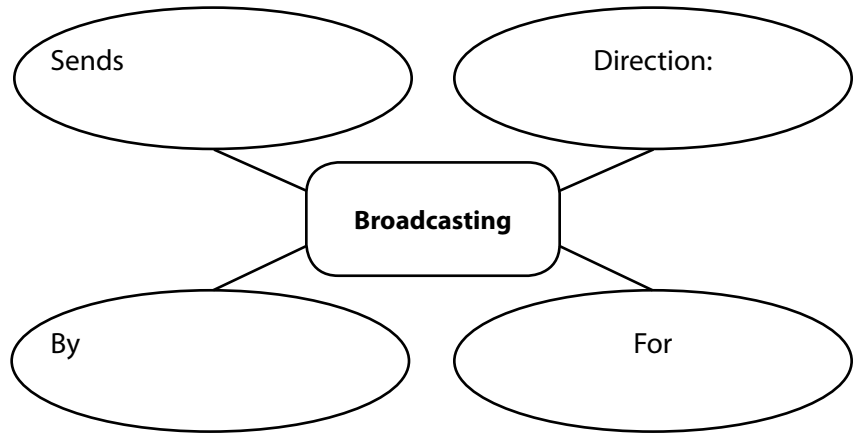
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Details

Identify three examples of electromagnetic wave uses in a typical day in a household.

1. _____
2. _____
3. _____

Describe broadcasting.



Differentiate two methods by which broadcasters modulate carrier waves.

Type	_____ modulation	_____ modulation
Abbreviation		
Definition		
Description		

Lesson 3 | Using Electromagnetic Waves (continued)

Main Idea

I found this on page _____.

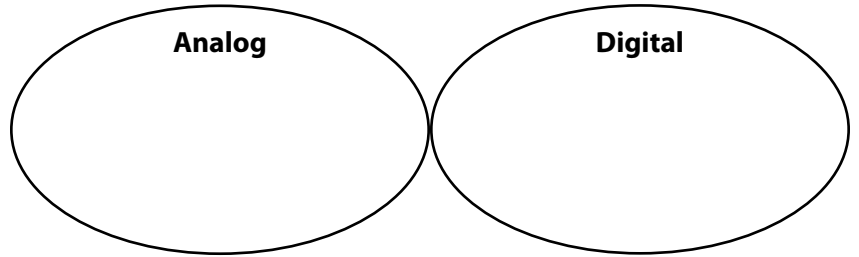
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Microwaves

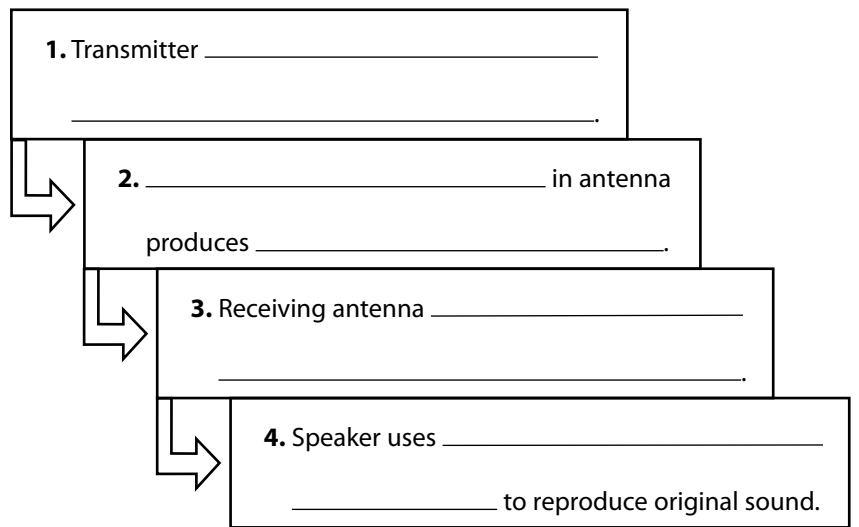
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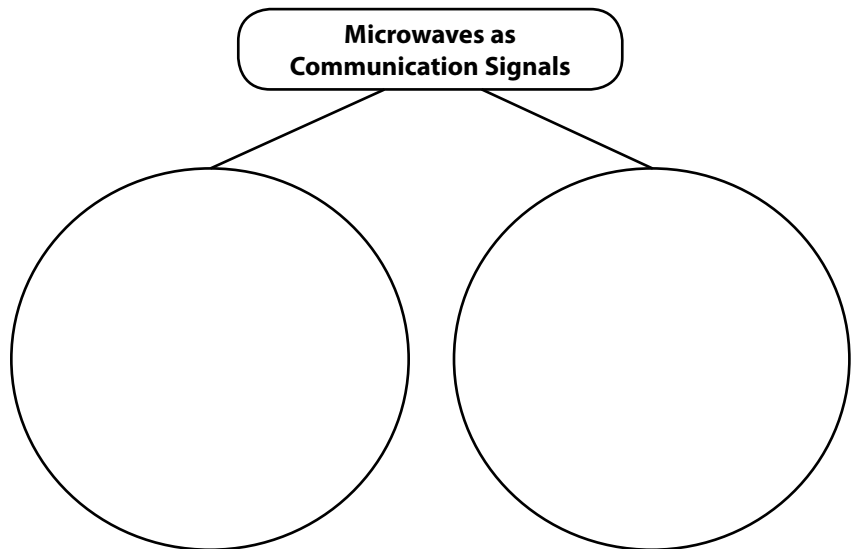
Contrast broadcasting signals. Circle the clearer type of signal.



Sequence the process of radio transmission and reception.



Distinguish two ways in which microwaves are better than radio waves for communication signals.



Lesson 3 | Using Electromagnetic Waves (continued)

Main Idea

I found this on page _____.

I found this on page _____.

Infrared Waves

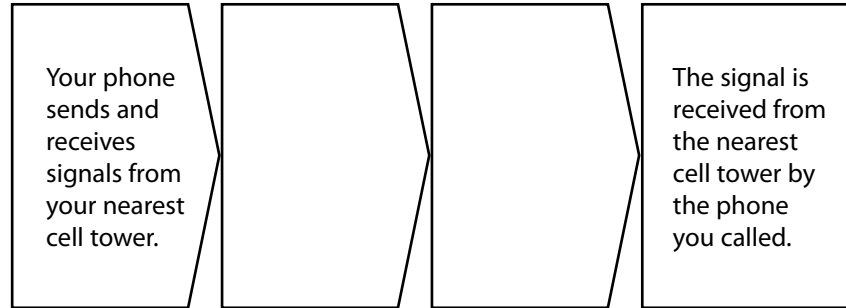
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Light

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Details

Order the relay of microwave signals that occurs in the use of cell phones.

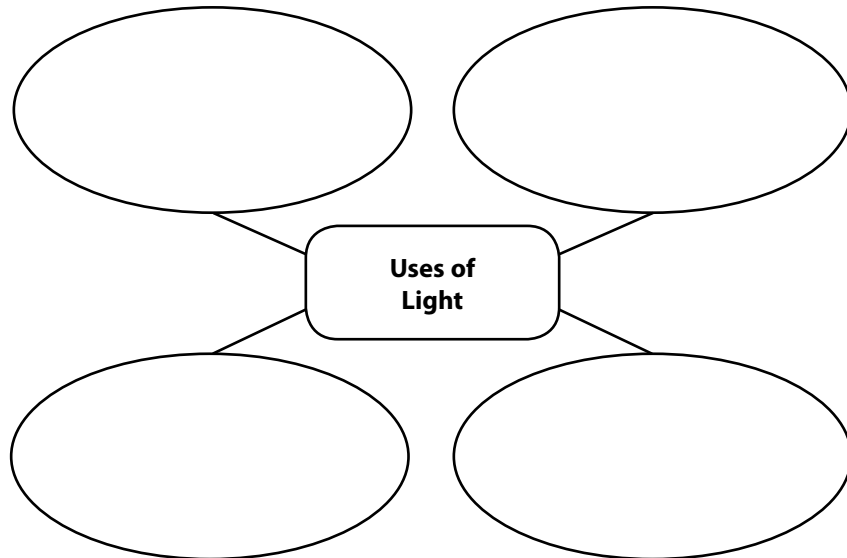


Explain how the Global Positioning System works.

Identify three uses of infrared waves.

1. _____
2. _____
3. _____

Identify technologies that use light produced on Earth.



Lesson 3 | Using Electromagnetic Waves (continued)

Main Idea

Ultraviolet Waves

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X-Rays

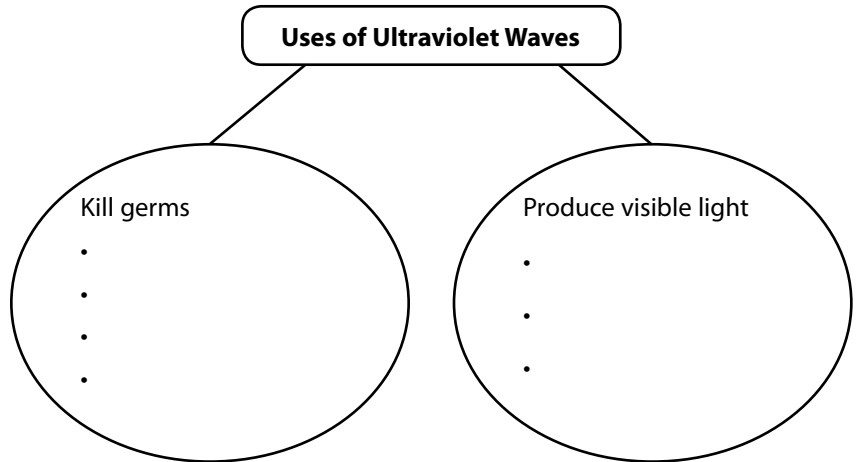
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Gamma Rays

I found this on page _____.


Details


 **Classify** uses of ultraviolet waves



 **Distinguish** uses of X-rays.

	Security	Medical Imaging
Description		Medical or dental: CT scan:

 **Paraphrase** the function of a PET scan.

 **Connect It** Identify five wavelengths and sources of electromagnetic radiation that you might encounter in a hospital.
