Name: Date: Score: / 8

Electromagnetic Spectrum: Learn and Practice

From radio waves to gamma rays

Read each question. Circle the best answer.

💡 The Electromagnetic Spectrum

- Visible light is one part of a family of waves called the electromagnetic spectrum.
- From low to high energy: radio, microwaves, infrared, visible light, ultraviolet, X rays and gamma rays.
- All of these waves can travel through empty space at the speed of light.
- longer wavelength: less energy, like radio waves

1 A heat camera detects which waves given off by warm bodies?

A. Ultraviolet B. Infrared C. Gamma rays D. X rays

2 Which color of visible light has the longest wavelength?

A. Blue B. Green C. Red D. Violet

3 ☀️ Which waves from the Sun cause sunburn?

A. Visible red light B. Microwaves C. Radio waves D. Ultraviolet

4 👀 Which part of the spectrum can human eyes see?

A. Radio waves B. Gamma rays C. Visible light D. X rays

5 📻 Which waves carry signals to a car radio?

A. Radio waves B. X rays C. Gamma rays D. Ultraviolet

6 🦴 Doctors use which waves to see broken bones?

A. X rays B. Microwaves C. Radio waves D. Infrared

7 What colors make up white light?

A. Black and white B. Only blue and green C. All the colors of the rainbow D. Only red

8 Which type of wave carries the most energy?

A. Infrared B. Radio waves C. Visible light D. Gamma rays

✏️ Explain it! Write two facts you learned about electromagnetic spectrum.

ANSWER KEY

Electromagnetic Spectrum: Learn and Practice (answers)

From radio waves to gamma rays

Read each question. Circle the best answer.

1 A heat camera detects which waves given off by warm bodies?

A. Ultraviolet **B. Infrared** C. Gamma rays D. X rays

Warm objects give off infrared waves, which heat cameras can sense.

2 Which color of visible light has the longest wavelength?

A. Blue B. Green **C. Red** D. Violet

Red has the longest wavelength of visible light, and violet has the shortest.

3 ☀️ Which waves from the Sun cause sunburn?

A. Visible red light B. Microwaves C. Radio waves **D. Ultraviolet**

Ultraviolet light has enough energy to damage skin, so wear sunscreen!

4 👀 Which part of the spectrum can human eyes see?

A. Radio waves B. Gamma rays **C. Visible light** D. X rays

Our eyes only detect a small band called visible light.

5 📻 Which waves carry signals to a car radio?

A. Radio waves B. X rays C. Gamma rays D. Ultraviolet

Radio stations broadcast using long radio waves.

6 🦴 Doctors use which waves to see broken bones?

A. X rays B. Microwaves C. Radio waves D. Infrared

X rays pass through soft tissue but are blocked by bone, making a picture.

7 What colors make up white light?

A. Black and white B. Only blue and green **C. All the colors of the rainbow** D. Only red

A prism splits white light into all the rainbow colors.

8 Which type of wave carries the most energy?

A. Infrared B. Radio waves C. Visible light **D. Gamma rays**

Gamma rays have the shortest wavelength and the highest energy.