







Name _____ Class _____ Date _____

- 1 In the diagrams below, _____.
- A** AM waves are being frequency modulated  
- B** FM waves are being amplitude modulated
- C** AM and FM waves look the same
- D** AM waves are amplitude modulated

- 2 Using the diagram below, determine how the FM waves **look different** than the AM waves. 
- A** FM waves show areas where the wavelengths are different
- B** AM waves show areas where the wavelengths are different
- C** AM waves vary in their frequencies
- D** FM frequencies are the same

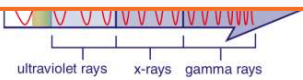
- 3 Why do **FM radio** broadcasts **sound better** than AM radio broadcasts?
- A** AM broadcasts at different frequencies
- B** AM broadcasts are louder
- C** FM broadcasts are louder
- 

- 4 In the picture below, a policeman is beaming a **radar gun** on moving traffic. What **kind of waves** are used by the radar gun?
- A** microwaves
- B** gamma rays
- 



PREVIEW

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- 7
- 
- A** ultraviolet rays **C** X-rays
- B** orange light **D** gamma rays

- A** more amplitude than ultraviolet rays
- B** lower frequencies than ultraviolet rays
- C** higher frequencies than ultraviolet rays
- D** less energy than ultraviolet rays

- 9 **Ultraviolet rays** can cause a person's skin to tan. What is another possible effect of ultraviolet rays?
- A** common colds
- B** skin allergies
- C** skin cancer
- D** acne
- 

- 10 Using the chart below, determine which type of broadcast can send out the **highest frequency**.

A UHF **B** VHF **C** AM **D** FM

Broadcast Frequencies	
Type of Broadcast	Frequency Range
AM radio broadcast	535 kHz to 1,605 kHz
VHF television	54 MHz to 216 MHz
FM radio broadcast	88 MHz to 108 MHz
UHF television	470 MHz to 806 MHz



ANSWER KEY

In the diagrams below, _____.

- A** AM waves are being frequency modulated
- B** FM waves are being amplitude modulated
- C** AM and FM waves look the same
- D** AM waves are amplitude modulated



(d)

Using the diagram below, determine how the FM waves **look different** than the AM waves.



- A** FM waves show areas where the wavelengths are different
- B** AM waves show areas where the wavelengths are different
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(a)

Why do **FM radio** broadcasts **sound better** than AM radio broadcasts?

- A** AM broadcasts at different frequencies
- B** AM broadcasts are louder
- C** FM broadcasts are louder
- D** FM broadcasts at



(d)

In the picture below, a policeman is beaming a **radar gun** on moving traffic. What **kind of waves** are used by the radar gun?

- A** microwaves
- B** gamma rays
- C** radio waves



(c)



PREVIEW

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ultraviolet rays x-rays gamma rays

- A** ultraviolet rays
- B** orange light
- C** X-rays
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Ultraviolet rays can cause a person's skin to tan. What is another possible effect of ultraviolet rays?

- A** common colds
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- C** skin cancer
- D** acne



(c)

- A** more amplitude than ultraviolet rays
- B** lower frequencies than ultraviolet rays
- C** higher frequencies than ultraviolet rays
- D** less energy than ultraviolet rays

Using the chart below, determine which type of broadcast can send out the **highest frequency**.

- A** UHF
- B** VHF
- C** AM
- D** FM

Broadcast Frequencies	
Type of Broadcast	Frequency Range
AM radio broadcast	535 kHz to 1,605 kHz
VHF television	54 MHz to 216 MHz
FM radio broadcast	88 MHz to 108 MHz
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(a)