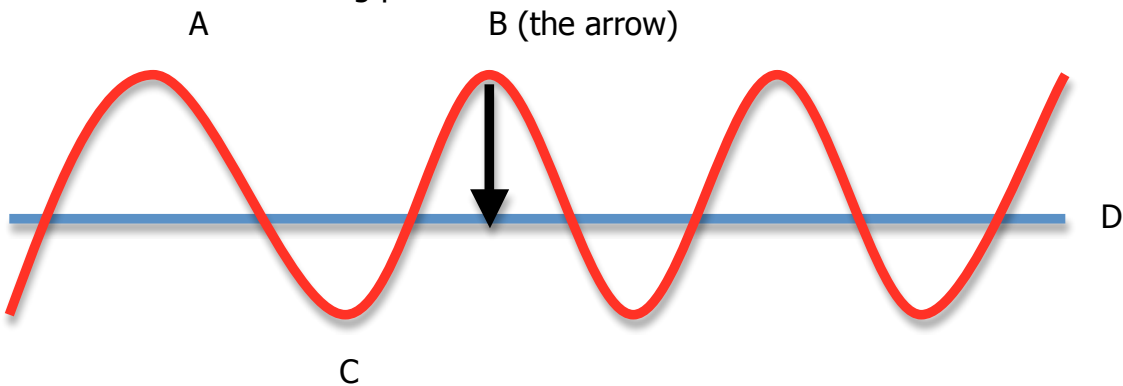


## Chapter 2 Practice Test: Using Light

Write the best answer. When you are finished, please remember to bring this to your next science class.

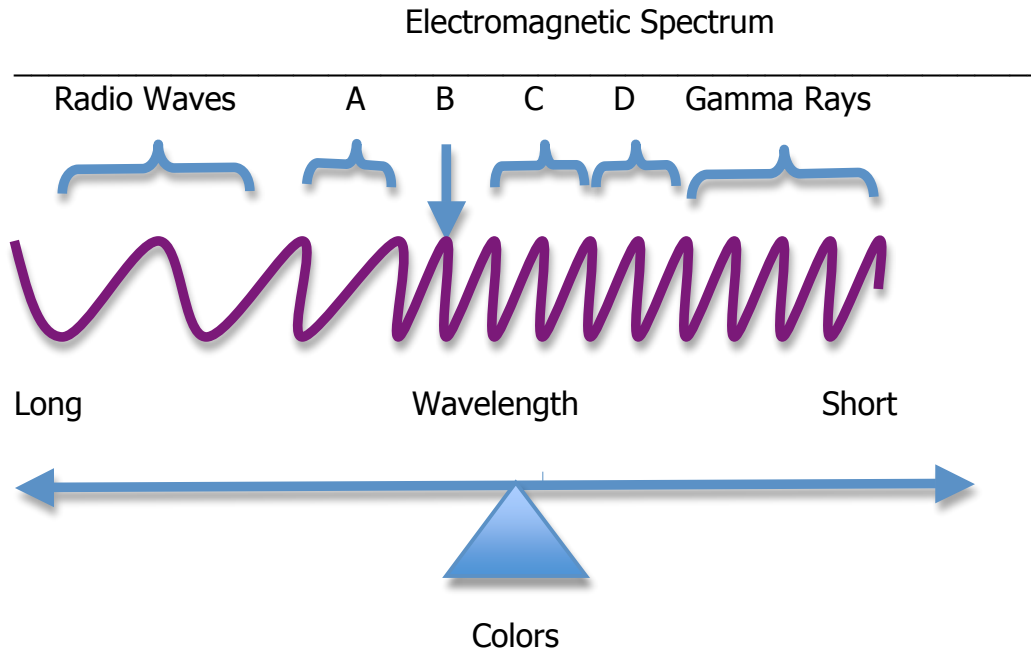
1. A wave transfers what? \_\_\_\_\_
2. What are the two different kinds of waves? \_\_\_\_\_  
and \_\_\_\_\_
3. Waves that are produced when a source of energy causes a medium to vibrate are what type of wave? \_\_\_\_\_
4. Where do electromagnetic waves come from? Be specific.  
\_\_\_\_\_
5. List the 4 basic properties of waves:  
\_\_\_\_\_  
\_\_\_\_\_
6. Which property measures the number of waves in a given amount of time? \_\_\_\_\_
7. Label the following parts on the waves illustrated below.



8. Which 2 letters in the diagram represent a wavelength? \_\_\_\_\_
9. Charged particles have an electric field surrounding it and when it **moves**, it produces a \_\_\_\_\_ field.
10. When the electric field changes motion, its \_\_\_\_\_ field also changes.

11. When 1 field vibrates, so does the other. This is how \_\_\_\_\_ transfer energy.

12. Use the diagram to answer the following questions



13. Which letter represents visible light? \_\_\_\_\_

14. List the waves that have a lower frequency than visible light  
\_\_\_\_\_

15. According to the diagram, which type of electromagnetic radiation has the **longest** wavelength? \_\_\_\_\_

16. When combined in equal amounts, the three primary colors of light make \_\_\_\_\_ light.

17. A curved piece of glass that is thinner in the middle and is used to **refract** light is what **type** of a **lens**? \_\_\_\_\_

18. The image you would see in a **plane mirror** is a \_\_\_\_\_ image.

19. In general, when light strikes an object, the light can be reflected, transmitted or \_\_\_\_\_.

20. Where does the source of light come from when you are looking at yourself in a plane, convex or concave mirror? \_\_\_\_\_

21. What are pigments?

\_\_\_\_\_

22. The **color** of an **opaque** object is determined by the wavelengths of light the object \_\_\_\_\_.

23. If you shine a green light on a red ball, the color of the ball appears \_\_\_\_\_ (name a color).

24. The **colors** of visible light **absorbed** by the red ball are: please list

\_\_\_\_\_

25. Chococat™ is black. What makes us see the black?

\_\_\_\_\_  
\_\_\_\_\_

26. The opening through which light enters the inside of your eye is the \_\_\_\_\_.

27. The lens of the eye forms an image on the \_\_\_\_\_, which are the **light-sensitive cells** that line the back of the eye.

28. The cells that are responsible for detecting color are called \_\_\_\_\_.

29. Which optical tool would I use if I wanted to magnify an object that cannot be seen with the naked eye? \_\_\_\_\_

30. Which optical tool would I use if I wanted to magnify a distant object?  
\_\_\_\_\_