

Honors Light & Color Questions

1. Is an electromagnetic wave transverse or longitudinal? Does it require a medium to transfer its energy?
2. Does every wave on the EM spectrum travel at the same speed? Explain.
3. If the sun were to disappear right now, why would it take us 8 minutes to notice?
4. What is the ultimate source of electromagnetic waves?
5. How does the distance of an object from the light source affect the shadow?
6. What is the difference between opaque and transparent?
7. How do objects give off color?
8. Why doesn't most of the UV radiation from the sun reach the ground?
9. What colors are humans most sensitive to? Why?
10. Explain why it is better to wear white clothing rather than black on a hot sunny day.

- ✓ Know the order of the EM spectrum and the use of each wave
- ✓ Know that the shiny surfaces of metals have most to do with the free electrons in metal atoms
- ✓ Know that clouds transmit UV light
- ✓ Know that the primary purpose of polarized sunglasses is to block glare from reflections
- ✓ Know that the number of electron vibrations per second is frequency and measured in hertz
- ✓ Know the order of light speed in a gas, liquid, and solid
- ✓ Know how 3-D glasses work
- ✓ Know the mixtures of the RGB color circles along with knowing the complementary colors