

## What You Should Know from “Wave Phenomenon”!

- 1.) What is Snell’s Law mathematically?
- 2.) What does Snell’s Law do for you?
- 3.) How can a light ray “slow down” when it enters a dense material?
- 4.) When using Snell’s Law, how are angles measured (that is, they are measured relative to what)?
- 5.) How is the index of refraction defined?
- 6.) When a light ray passes from a less dense material to a more dense material, what does it do relative to the normal?

7.) When a light ray passes from a more dense material to a less dense material, what does it do relative to the normal?

8.) What happens when a light ray comes into contact with an interface at the “critical angle?”

9.) How is the critical angle defined mathematically?

10.) For a “critical angle” to make sense, does light have to be traveling from a less to more dense situation or from a more to less dense situation?

11.) Why does a person seem all jammed up underwater when you view them from above water level a distance away?

12.) Light that should bury itself into the asphalt on a desert highway in the summer “wheels” upward as it gets close to the hot surface. How, physically, does that work?

13.) How do mirages happen?

14.) Why is the sky blue?

15.) Why is the sun so red at sunset?

16.) Why does the sun seem squashed at sunset?

17.) Why does light “spread out” when it passes through a prism?

18.) What color refracts the most when passing through a prism? Which the least?

19.) What is the green flash and how does it happen?