

**➤ Main Ideas, Key Points, Questions:**

*After watching the video segment, write down key points, main ideas, and big questions.*

**➤ Objective(s):**

- *To understand why light refracts as it moves from one medium to another.*
- *To apply the law of refraction, or Snell's law, to light as it moves between media with different optical densities.*
- *To use Snell's law to calculate the critical angle of light between two different media.*

**➤ Notes:**

*During the video segment, use words, phrases, or drawings to take notes.*

**➤ Summary:**

*After watching the video segment, write at least three sentences explaining what you learned. You may ask yourself: "If I was going to explain this to someone else, what would I say?"*

**Answer the following.**

1. Define refraction in your own words.

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2. Why does light bend as it moves between different transparent media?

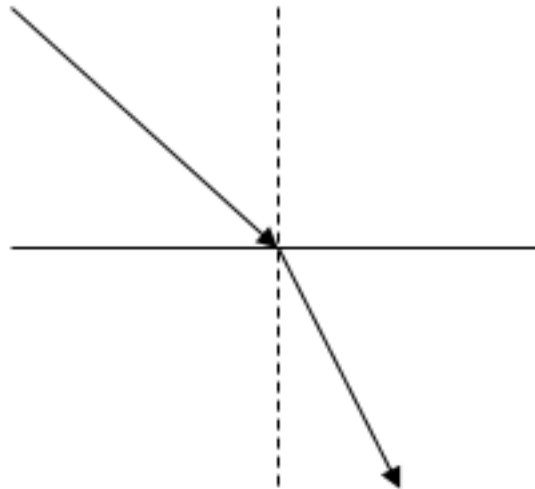
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3. The greater a material's index of refraction, the \_\_\_\_\_ a material bends light.

4. The greater a material's index of refraction, the \_\_\_\_\_ the speed of light in that material.

5. In the diagram below, label the incident light ray, the angle of incidence, the refracted light ray, and the angle of refraction.



6. When light moves from a faster medium into a slower medium, the light bends \_\_\_\_\_ the normal line.

7. When light moves from a slower medium into a faster medium, the light bends \_\_\_\_\_ the normal line.

**Answer the following.**

8. Write Snell's law in the space below:

9. Define critical angle in your own words.

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10. If light traveling into a faster medium has an angle of incidence greater than the critical angle, the light \_\_\_\_\_ back into the original medium.

11. Which wavelength of visible light bends the most?

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12. Name two applications of refraction that are mentioned in the segment.

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