**AP Physics Snow Day 3**

**Exploring Refraction**

You will be exploring the behavior of a ray of light at the boundary, or *interface*, between two materials.

**Activity #1:**

Define the following terms:

Reflection:

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Refraction:

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Transmission:

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Angle of Incidence:

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Angle of Refraction:

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Index of Refraction:

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**Activity #2:**

Go to this website: [http://www.physicsclassroom.com/Physics-Interactives/Refraction-and-Lenses/Refraction/RefractionInteractive](http://www.physicsclassroom.com/Physics-Interactives/Refraction-and-Lenses/Refraction/Refraction-Interactive)

Click on the upper left-hand corner of the graphic below to launch the interactive module in full screen.



Use this interactive to answer the following questions.

1. What affect does an increase in the angle of incidence have upon the angle of reflection?

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1. What affect does an increase in the angle of incidence have upon the angle of refraction?

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1. Under what conditions are the angles of incidence greater than the angles of refraction?

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1. Every substance has its own unique index of refraction (**n**). For light passing from air to another material, what affect does increasing the angle of incidence have upon the angle of refraction?

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1. Under what conditions is the angle of incidence greater than the angle of refraction? And under what conditions is the angle of incidence less than the angle of refraction?

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*Lesson adapted from http://www.physicsclassroom.com*