**Refraction, Lenses, & Prisms** (p. 566 – 571)

**I. Refraction Of Light**

 **1. Define the term refraction.**

 Refraction –

 **2. Which way does light bend from the normal if it goes from material with :**

 High to low speed : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Low to high speed : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 **3. The smaller the difference between light speeds, the more light bends between materials.**

 Circle One : True False

 **4. Where should a person aim when trying to spear a fish?**

 Circle One : Above the fish. Right at the fish. Below the fish.

 **5. Define the term mirage.**

 Mirage –

 **6. Explain why a mirage forms.**

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**II. Lenses**

 **1. Define the term lens.**

 Lens –

 **2. Differentiate between a converging (*convex*) lens and diverging (*concave*) lens and**

 **identify the type(s) of images formed by each lens.**

 Converging : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Image : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Diverging : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Image : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 **3. Define the term magnification.**

 Magnification –

 **4. The area where light rays come together and is focused is called the :**

 **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**

 **5. What are the two lenses used in a compound light microscope?**

 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 **6.** **Match the eye parts with the correct definitions.**

 1. \_\_\_\_\_ - Pupil A. Focuses light onto sensor cells at the back of the eye.

 2. \_\_\_\_\_ - Retina B. Opening that allows light to pass through the eye.

 3. \_\_\_\_\_ - Cornea C. Expands & contracts to control amount of light entering the eye.

 4. \_\_\_\_\_ - Iris D. Transparent outer coating of the eye.

 5. \_\_\_\_\_ - Lens E. Inner lining composed of rods and cones.

 **7. The following retinal cells are sensitive to which types of light?**

 Rods = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Cones = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**III. Dispersion & Prisms**

 **1. Define the term prism.**

 Prism –

 **2. Which type of wavelengths are refracted more?**

 Circle One : Longer Wavelengths Shorter Wavelengths

 **3. Which color of light is bent the most and least by a prism?**

 Bent Most = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Bent Least = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 **4. Define the term dispersion.**

 Dispersion –

 **5. How do raindrops disperse light like prisms?**

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 **6. How do rainbows form?**

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