

REFRACTION WORKSHEET

I PART.

The table shows the index of refraction of some common mediums. Use the data to answer the following questions.

1. Which medium causes the greatest change in the direction of a light ray that enters at an angle?

2. According to the table, which tend to bend light more, solids or liquids?

3. Would you expect light to bend if it entered corn oil at an angle after it traveled through glycerol? Explain

Index of Refraction	
Medium	Index of Refraction
Air (gas)	1.00
Water (liquid)	1.33
Ethyl alcohol (liquid)	1.36
Quartz (solid)	1.46
Corn oil (liquid)	1.47
Glycerol (liquid)	1.47
Glass, crown (solid)	1.52
Sodium chloride (solid)	1.54
Zircon (solid)	1.92
Diamond (solid)	2.42

Figure 1

II PART.

The light ray bends as it passes through different mediums. Answer the following questions about Figure 2.

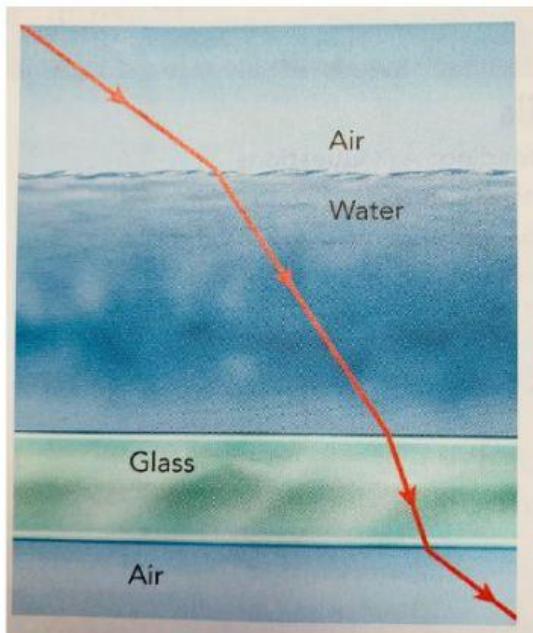


Figure 2

1. In which medium does light travel the fastest?

2. In which medium does light travel the slowest?

3. Why is the angle of entering and exiting of the light ray the same? Explain

III PART.

Look at figure 3 and answer the questions.

1. Why does light separate out into colors at point A?

2. What happens at point B?

3. What happens at point C?

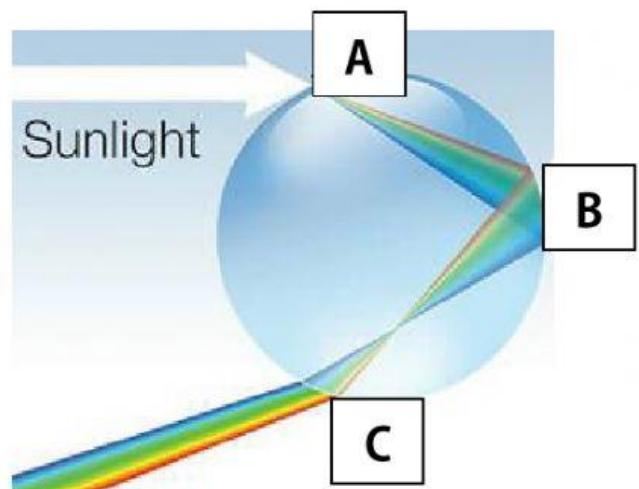


Figure 3