

### **Study work sheet 3**

#### **Topic - Reflection and refraction of waves.**

#### **Lesson - Refraction of light.**

After study this lesson you,

- \* Do activities to demonstrate the refraction of light.
- \* State refraction is the change of direction of light when traveling from one transparent medium to another transparent medium.
- \* Mention the example for effects of refraction of light.
- \* Demonstrate how white light pass through the glass prism.
- \* State the white light consist of seven colors.
- \* State rainbow is another elegant phenomenon that occur due to refraction of light.
  
- \* At first do activity 14.10 in page 75 of science part ii book and answer the question of page number 76.
- \* After that read the page 76 alternatively and answer the following questions.
  1. State the place where the direction of light change?
  2. Mention the direction of light change or not of the been of light direction perpendicular to the interface?
  3. Define the refraction of light?
  
- \* Now study the figure 14.31 and draw the picture on your writing book and name the interface, incident ray and incident angle.
- \* Then do the activity 14.11 in page 77.
- \* Draw the figure 14.33 and name it.
- \* Read the page 78 and 79 alternatively.
- \* Do the activity 14.12 at first.
- \* Draw the figure 14.34 and think about real depth and apparent depth.

- \* Understand it is important to think carefully before step down into a well or reservoir because the real depth of it is more than apparent depth.
- \* Study how pencil dipped in water (figure 14.35).
- \* Do activity 14.13 and answer the following questions
  1. State the colour of the light beam that you direct to the prism
  2. How many colours are there on the white screen and what are they?
  3. Define “dispersion”
- \* Read page 80,
  1. Mention how do a rainbow occur?
  2. Try to create a Newton’s disc.

***For extra knowledge***

- \* If you can read the page 116, 117 and 118 of grade 11 part I text book.
- \* Observe the part of refraction in **grade 11 science smart text book** that belongs to your science teacher.