Touching new heights for a better learning in Physics

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Presentation title: Properties of light and their applications

Presentation of the properties and their applications using technology to make teaching, learning interesting using information from the internet & animations in the form of power point presentation.

Properties and behavior of light can be better learnt with the use of technology and demonstration of the properties using laboratory apparatus. A video clipping showing the steps to carry out class activities can be shot and the same can be incorporated in a power point presentation to shown in the class without the teacher getting exhausted in making a number of repetitions. Video clippings of natural phenomenon like atmospheric refraction & colorful pictures of human eye etc can also be included in the presentation to make the learning more effective and reachable. Drawing of ray diagrams can be taught more effectively in the class. The same presentation can be uploaded on the school server to enable the students to access it any time. An assignment of MCQ's can also be prepared which would give students a quick recapitulation and a self check of what has been discussed.

A presentation on the properties of light

A. Reflection of light

1. A video clipping showing the steps to carry out a class activity in order to understand the phenomenon of reflection of light by placing the laser torch at different angles in front of the mirror.
2. Students can follow the guidelines and carry out the activity on their own.
3. Discussion of the phenomenon defining all the related terms using still pictures on the screen.
4. Laws of reflection.
5. Study the phenomenon using spherical reflectors
6. Use animation to show the converging and diverging effect by the mirrors.
7. Formation of image formed by the spherical mirror by keeping the object at different positions in front of the mirror (a simulation can used by the students to do the same).
8. Applications of the mirrors (still pictures)

B. Refraction of light

1. A video clipping showing the steps to carry out a class activity in order to understand the phenomenon of refraction of light through different media can be followed by the students carrying the same.
2. Discussion of the phenomenon and laws of refraction.
3. Refractive index – An animation showing the change in the amount of bending of light with the change in the medium.
4. Refraction through lenses. Understanding drawing of ray diagrams using compute simulation
5. Refraction of light through prism- Dispersion of light and atmospheric refraction with help of animations and still pictures.
6. Human eye- Structure and function of the eye with the help of colorful pictures.
7. Formation of image by the eye when the object is placed at different positions in front of the eye.
8. Common defects of the eye- discussion using ray diagrams.

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