NOTES

CLASS 7
SCIENCE

aglasem.com
Study Material

DOWNLOAD PDF

LIGHT

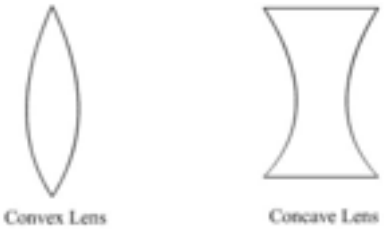
- Light is a naturally occurring substance that enhances vision and makes objects visible. Light follows a straight path.
- A mirror can be made out of any polished or gleaming surface.
- A true image is one that can be obtained on a computer screen. It's made up of light rays that pass through the screen.
- A virtual image is an image that cannot be obtained on a screen. It's made up of light rays that appear to travel right through the screen.
- A planar mirror produces an erect picture. It's a virtual object that's the same size as the real thing. The picture behind the mirror is the same size as the object in front of it.

The left side of an object appears on the right side of an image generated by a mirror, and the right side of the object appears on the left side of the picture.

- A true and inverted image can be created via a concave mirror. The picture generated when the object is put very close to the mirror is virtual, erect, and enlarged.
- A convex mirror is one that curves outwards and has a convex reflecting surface. The image that is created is virtual, upright, and shrunk. A convex mirror creates an image that is upright, virtual, and smaller in size than the object.



- A concave lens is one that has a thinner centre than it has at the edges. It's a convergent lens. The resulting image is imaginary, erect, and shrunken.
- A convex lens can create both a true and a distorted image. The image generated when the object is put very close to the lens is virtual, erect, and enlarged. The convex lens is known as a magnifying glass when it is used to magnify objects.



- White light is made up of seven different colours.

Properties of Light:

1. Rectilinear Propagation of Light: The quality of light that allows it to move in a straight line in any direction. The direction in which light travels to form a ray.
2. Light Reflection: This is the phenomenon of light rebounding back after striking an object's surface. Smooth, gleaming surfaces reflect nearly all of the light.
3. Dispersion: The breaking of white light into its seven colours is referred to as dispersion. Violet, Indigo, Blue, Green, Yellow, Orange, and Red (VIBGYOR) hues make up white light.

CHAPTER 12

FOREST OUR LIFE LINE

Deforestation

Clearing of forests and trees eventually using that land for other purposes like agriculture and other human activities. The main causes for deforestation are:

(i) agricultural expansion

(ii) livestock grazing

(iii) Illegal logging, which is cutting, processing of trees in prohibited land.

(iv) human infrastructure expansion

(v) overpopulation

Consequences of Deforestation

(i) The source of conversion of carbon dioxide to oxygen is reduced. Plants use photosynthesis to convert carbon dioxide to oxygen. This process leads to Global Warming.

(ii) Pollution increases as there is a decrease of plants, which give out fresh air to breathe.

(ii) Ground water level also gets lowered. Desertification and droughts are the results of deforestation.

Wildlife Conservation

Conservation of forest and wildlife

- Many NGO's are working towards creating public awareness for conserving depleting forest cover and vanishing wildlife.
- Central and state governments in India have set up national parks and wildlife sanctuaries to protect forests and endangered species in wildlife.

Species

Species is a group of populations, which are capable of interbreeding (reproducing fertile offspring).

Flora and fauna

The plants and animals observed in a specific region are referred to as flora and fauna of that region.

Biosphere Reserves

Biosphere and Biodiversity

- Biosphere is that part of the earth in which living organisms exist and is a sum of all the ecosystems.
- Biodiversity, refers to the variety of organisms existing on the earth, their interrelationships and their relationship with the environment.

Endemic species

Endemic species are species of plants and animals that are exclusively found only in a particular region or area.

Wildlife Conservation Projects

(i) Biosphere Reserve- Large areas which conserve biodiversity and civilization of that region. They preserve and protect tribal groups in addition to wildlife. Eg: Pachmarhi Biosphere Reserve.

(ii) **Zoo**- Wild animals are kept for research, preservation and also for public exhibition and tourism. Eg: Mysore zoo, Indira Gandhi zoological park.

(iii) **National Park**- Reserved habitats for both flora and fauna especially endangered species. National parks cover large areas where animals can freely move around. E.g. Gir forest national park, Periyar national park.

(iv) **Sanctuary-** Sanctuaries are largely protected habitats for animals. E.g. Krishna wildlife sanctuary.

Recycling of Paper

Paper is recycled so that more trees do not have to be cut down to create more paper. It is important that we conserve trees and reduce the use of paper as much as possible.

Reforestation

Reforestation is restoring of the cleared or destroyed forests by planting new trees.

Extinction

- Extinction is the dying out or death of all members of a species.
- Human intervention (either directly or indirectly) has become the leading cause of species extinction.
- Eg: Animals like the Dodo bird, Tasmanian wolf are extinct.

Endangered animals

Animals whose count is reducing to an extent that they might face extinction are known as the endangered animals. Eg: Giant panda, tiger. Red Data Book is a source (reference) book, keeping a record of all the plant and animals that are endangered.

Ecosystem

Ecosystem is the region consisting of all the living plants, animals and microorganisms in an area along with non-living components such as climate, soil, river deltas, etc.

Migration

Migration is defined as the movement of organisms in large numbers from one place to another.

Study Materials

aglasem.com

Model Papers

Sample Papers

Half Yearly Sample Papers

Important Resources

Periodic Table

Writing Skills / Formats

Maps of India / World

Notes

- [ ] Class 6 Notes
- [ ] Class 7 Notes
- [ ] Class 8 Notes
- [ ] Class 9 Notes
- [ ] Class 10 Notes
- [ ] Class 11 Notes
- [ ] Class 12 Notes

Books and Solutions

NCERT Books

NCERT Book Solutions

HC Verma Chapter Wise Solutions

RD Sharma Solutions

CGBSE Solutions