

Learnzy Academy

Worksheet: The Human Eye and the Colourful World

1. The least distance of distinct vision for a young adult with normal vision is about (a) 25 m. (b) 2.5 cm. (c) 25 cm. (d) 2.5 m
2. What is the function of the optic nerve in the human eye?
3. Explain why the planets do not twinkle.
4. What is the far point and near point of the human eye with normal vision?
5. What is hypermetropia?
6. Why do different colours deviate through different angles on passing through a prism?
7. The human eye forms the image of an object at its (a) cornea. (b) iris. (c) pupil. (d) retina.
8. What is meant by power of accommodation of the eye?
9. A student is unable to see clearly the words written on the black board placed at a distance of approximately 3 m from him. Name the defect of vision the boy is suffering from. State the possible causes of this defect and explain the method of correcting it.
10. Why does the sky appear dark instead of blue to an astronaut?
11. Why are we not able to see things clearly when we come out of a dark room?
12. A student has difficulty reading the blackboard while sitting in the last row. What could be the defect the child is suffering from? How can it be corrected?
13. Why does the sun appear reddish early in the morning? Will this phenomenon be observed by an astronaut on the Moon? Give reason to justify your answer.
14. The far point of a myopic person is 80 cm in front of the eye. What is the nature and power of the lens required to correct the problem?
15. Why is Tyndall effect shown by colloidal particles? State four instance of observing the Tyndall effect.
16. List two causes of hypermetropia.
17. The change in focal length of an eye lens is caused by the action of the (a) pupil. (b) retina. (c) ciliary muscles. (d) iris
18. List the parts of the human eye that control the amount of light entering into it. Explain how they perform this function?
19. What is the role of the ciliary muscles?
20. What is a spectrum? How can we recombine the components of white light after a glass prism has separated them?