Light: Chapter Introduction

We see things because light bounces off them into our eyes. At a surface light has 2 options: bounce back (reflection) or go in and bend (refraction).

Name: _____ Date: _____ Score: ____ / 17

A. Fill in the blanks

1. We see non-luminous objects by the light they ____ into our eyes.

2. Light returning into the same medium is called ____.

3. Light bending when it enters another medium is called ____.

4. Refraction happens because the ____ of light changes.

B. True or False

5. Mirrors work by refraction. True / False

6. Lenses work by refraction. True / False

7. Our eye contains a lens. True / False

8. We see the Moon because it makes its own light. True / False

C. Assertion and reason

9. Assertion (A): A lens works by refraction.
Reason (R): Light bends as it passes from air into glass.

(a) Both A and R are true, and R explains A
(b) Both A and R are true, but R does not explain A
(c) A is true, R is false
(d) A is false, R is true

Answer: _____

10. Assertion (A): We see the Moon because it is luminous.
Reason (R): The Moon reflects sunlight.

(a) Both A and R are true, and R explains A
(b) Both A and R are true, but R does not explain A
(c) A is true, R is false
(d) A is false, R is true

Answer: _____

D. Choose the correct option

11. Bending of light at the boundary of two media is:

(a) reflection
(b) refraction
(c) dispersion
(d) absorption

Answer: _____

12. Which works mainly by reflection?

(a) lens
(b) prism
(c) plane mirror
(d) spectacles

Answer: _____

13. Refraction is caused by a change in:

(a) colour
(b) speed of light
(c) source
(d) temperature only

Answer: _____

14. Part 2 of the chapter deals with:

(a) mirrors
(b) refraction and lenses
(c) electricity
(d) sound

Answer: _____

E. Short answer questions

15. Distinguish reflection and refraction.

16. How do we see a book in a lit room?

F. Match the columns

17. Match each item in Column A with the correct item in Column B.

Column A	Column B	Your answer
1. Mirror	(a) Seen by reflected light	1 → ____
2. Lens	(b) Bending of light	2 → ____
3. Moon	(c) Reflection	3 → ____
4. Change in speed	(d) Refraction	4 → ____

Detailed solutions

1. reflect

2. reflection

3. refraction

4. speed

5. False. Mirrors use reflection.

6. True. Light bends as it enters and leaves the glass.

7. True. It focuses light on the retina.

8. False. It reflects sunlight.

9. (a) R describes refraction in the lens.

10. (d) A is false; R is true.

11. (b) refraction. Its speed changes.

12. (c) plane mirror. Mirrors reflect.

13. (b) speed of light. Light changes speed in a new medium.

14. (b) refraction and lenses. Part 1 is mirrors.

15. Reflection: light bounces back into the same medium (mirror). Refraction: light bends on entering another medium because its speed changes (lens).

16. Light from a source falls on the book; the book reflects it into our eyes.

17. 1 → (c), 2 → (d), 3 → (a), 4 → (b). The chapter has two parts: reflection and refraction.