

SCIENCE

Name: _____ Group: _____ Date: _____

1  ²⁰ Listen and circle *true* or *false*.

- a The Hubble is the largest telescope on Earth.
1 true 2 false
- b The Hubble is a refracting telescope.
1 true 2 false
- c Space telescopes capture higher resolution images.
1 true 2 false
- d The Hubble has captured images of distant galaxies.
1 true 2 false
- e The Hubble is serviced by astronauts in space.
1 true 2 false



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2 Read and match.

- | | |
|--|----------------|
| a ____ It is an optical instrument similar to a telescope, but designed to be used with both eyes simultaneously. | 1 telescope |
| b ____ It is an optical instrument that uses lenses to focus light and records images on film or an electronic sensor. | 2 binoculars |
| c ____ It is the distance from the center of a lens or curved mirror to its focal point. | 3 prism |
| d ____ It is a triangular piece of glass that bends light beams. | 4 camera |
| e ____ It is an optical instrument used to make distant objects appear nearer. | 5 focal length |

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3 Read and complete with words from the box.

behind	blurry	focal	nearsightedness	retina
convex	farsightedness	refract	concave	clearly

In the normal eye, light is focused on the retina. Astigmatism, myopia (¹ _____) and hyperopia (² _____) are examples of human vision problems. These are refractive defects since the eyes cannot bend (³ _____) light properly and thus produce blurred vision. Astigmatism is produced by deformations of the cornea. These deformations cause two focal points to fall in two different locations, making objects at any distance appear ⁴ _____. Astigmatism can be corrected with contact lenses, eyeglasses or laser surgery. In myopia, the light entering the eye does not focus on the retina, but in front of it. Distant objects cannot be seen ⁵ _____, but close objects can. It can be corrected by lengthening the focal length so that the focal point (focus) falls on the ⁶ _____. This is done with implants, laser or non-laser refractive surgery or ⁷ _____ lenses in eyeglasses or contact lenses. In hyperopia, the light entering the eye does not focus on the retina, but ⁸ _____ it. Close objects cannot be seen clearly, but distant objects can. It can be corrected by shortening the ⁹ _____ length so that the focal point falls on the retina. This is done with laser or non-laser refractive surgery, or with ¹⁰ _____ lenses in eyeglasses or contact lenses.



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