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| Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

Refraction and Lenses crossword puzzle

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |  |  |  |  | 1  F |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | R |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2  C |  |
|  |  |  |  |  |  |  |  |  |  |  | 3  M | E | N | I | S | C | U | S | L | E | N | S |  |  |  |  |  | O |  |
|  |  |  |  |  |  |  |  |  |  |  |  | S |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | N |  |
|  |  |  |  |  |  | 4  C | O | M | P | O | U | N | D | L | E | N | S |  |  |  |  |  |  |  |  |  |  | V |  |
|  |  |  |  |  |  |  |  |  |  |  |  | E |  |  |  |  |  |  |  |  |  |  |  |  | 5  D |  |  | E |  |
|  |  |  |  |  |  |  |  | 6  F | O | C | A | L | L | E | N | G | T | H |  |  |  |  |  |  | I |  |  | R |  |
|  |  |  |  |  |  |  |  |  |  |  |  | L |  |  |  |  |  |  |  |  |  |  |  |  | V |  |  | G |  |
|  |  |  |  |  |  |  |  |  |  | 7  F |  | E |  |  |  |  |  |  |  |  |  |  |  |  | E |  |  | I |  |
|  |  |  |  | 8  N | I | M | R | U | D | L | E | N | S |  |  |  |  | 9  R |  |  |  |  |  |  | R |  |  | N |  |
|  |  |  |  |  |  |  |  |  |  | A |  | S |  |  |  | 10  L |  | E |  |  |  |  |  |  | G |  |  | G |  |
|  |  |  |  |  |  |  |  |  |  | T |  |  |  | 11  G |  | E |  | F |  |  |  |  |  |  | I |  |  | L |  |
|  |  |  |  |  |  |  |  |  |  | M |  | 12  C | Y | L | I | N | D | R | I | 13  C | A | L | L | E | N | S |  | E |  |
|  |  |  |  |  |  |  |  |  |  | I |  |  |  | A |  | S |  | A |  | O |  |  |  |  | G |  |  | N |  |
|  | 14  L | E | N | T | I | 15  C | U | L | A | R | L | E | N | S |  | E |  | 16  C | O | N | C | A | V | E | L | E | N | S |  |
|  |  |  |  |  |  | O |  |  |  | R |  |  |  | S |  | S |  | T |  | V |  |  |  |  | E |  |  |  |  |
|  |  |  |  |  |  | N |  |  |  | O |  | 17  C |  |  |  |  |  | I |  | E |  |  |  |  | N |  |  |  |  |
|  | 18  C | O | N | C | A | V | E | M | I | R | R | O | R |  |  |  |  | O |  | X |  |  |  |  | S |  |  |  |  |
|  |  |  |  |  |  | E |  |  |  |  |  | N |  |  |  |  |  | N |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | X |  |  |  |  |  | C |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | L |  |  | 19  F | O | C | A | L | P | O | I | N | T |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | E |  |  |  |  |  | V |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | N |  | 20  C | O | N | V | E | X | M | I | R | R | O | R |  |  |  |  |  |  |  |  |  |  |
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| **Across**  **3.** Concave-convex lenses  **4.** Consists of several simple lenses  **6.** Distance from the center of the lens to the focal point  **8.** First lens ever used  **12.** Have curvature in only one directon  **14.** A shaving mirror is this kind of mirror  **16.** Binoculars use these  **18.** A shaving mirror is this kind of mirror  **19.** This point of a lens is generally noted with a capital F  **20.** Used in lenses of sunglasses | **Down**  **1.** Has its optical surface broken up into narrow rings  **2.** Cause light rays to bend to a focal point  **5.** Cause light ray from a specific focal point to bend  **7.** A mirror with a flat reflective surface  **9.** Change in direction of a wave due to a change in its transmission medium  **10.** Glasses or other transparent substance with curved sides  **11.** What most lenses are made out of  **13.** Spoon  **15.** Microscopes use this type of lens  **17.** Telescopes |