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

Mirrors and Lenses

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|  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1P |  |  |  |  |  |  |  |  |  | 2V |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | 3R |  E |  G |  U |  L |  A |  R |  R |  E |  F |  L |  E |  C |  T |  I |  O |  N |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  A |  |  |  |  |  |  |  |  |  |  R |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |  |  | 4I |  |  |  |  E |  |  |  |  |  |  |  |  |  |  U |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |  |  |  D |  | 6D |  |  I |  |  I |  |  |  |  |  | 7F |  |  L |  |  |  |  |  |
|  |  |  |  | 8C |  O |  N | 9C |  A |  V |  E |  M |  I |  R |  R |  O |  R |  | 10O |  |  |  |  O |  |  I |  |  |  |  |  |
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|  |  |  |  | 13R |  E |  A |  L |  I |  M |  A |  G |  E |  |  |  |  A |  |  A |  | 14L |  E |  N |  S |  |  |  |  |  |  |
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| **Across****3.** when parallel rays of light hit a smooth surface **8.** a mirror with a surface that curves inward **12.** an image of a distant object caused by refraction of light **13.** an object positions determines whether a convex lens forms a \_\_\_\_\_\_\_\_\_\_ or a virtual image **14.** a curved piece of glass or other transparent material**15.** images formed by \_\_\_\_\_\_\_\_\_\_ are always smaller than the object  | **Down****1.** a flat sheet of glass that has a smooth, silver colored coating on one side**2.** a concave lens can only produce \_\_\_\_\_\_\_\_\_\_\_\_\_\_**4.** A measure of how much a ray of light bends when it enters that material**5.** an upright image that forms where light seems to come from **6.** when a parallel ray of light hit a bumpy surface**7.** the point at which rays parallel to the optical axis meet **9.** a lens thicker in the center than the edges **10.** an imaginary line that divides a mirror in half **11.** a lens that is thinner in the center than the edges **16.** a copy of a image formed by a reflected or refracted rays of light |