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

Electricity and Magnetism

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|  |  |  |  |  |  |  |  |  | 1M |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  A |  |  |  |  |  | 2I |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  G |  |  |  |  |  |  R |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  N |  | 3N |  O |  N |  M |  O |  V |  I |  N |  G |  C |  H |  A |  R |  G |  E |  S |  |  |  |
|  |  |  |  |  |  |  |  |  |  E |  |  |  |  |  |  N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 4S |  T |  A |  T |  I |  C |  E |  L |  E |  C |  T |  R |  I |  C |  I |  T |  Y |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  I |  |  |  |  |  |  O |  |  |  |  |  |  |  | 5M |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  C |  | 6R |  | 7V |  |  R |  |  | 8I |  N |  S |  U |  L |  A |  T |  O |  R |  |  |  |
|  | 9P |  |  |  |  |  | 10N |  |  F |  |  E |  |  O |  |  E |  |  |  |  |  |  |  |  G |  |  |  |  |  |  |
|  |  O |  | 11M |  A |  G |  N |  E |  T |  I |  C |  P |  O |  L |  E |  |  |  |  |  |  |  |  |  N |  | 12P |  | 13S |  |  |
|  |  S |  |  |  |  |  |  G |  |  E |  |  E |  |  T |  | 14E |  |  |  | 15E |  |  |  |  E |  |  A |  |  E |  | 16P |
|  |  I |  | 17E |  |  |  |  A |  |  L |  |  L |  |  |  |  L |  |  |  |  L |  | 18O |  |  T |  |  R |  |  R |  |  O |
|  |  T |  |  L |  |  |  |  T |  |  D |  |  |  | 19M |  |  E |  |  |  |  E |  |  P |  |  I |  |  A |  |  I |  |  S |
|  |  I |  |  E |  | 20M |  |  I |  |  |  |  |  |  A |  |  C |  | 21A |  |  C |  |  P |  |  C |  |  L |  |  E |  |  I |
|  |  V |  |  C |  |  A |  |  V |  |  |  |  |  |  G |  |  T |  |  T |  |  T |  |  O |  |  F |  |  L |  |  S |  |  T |
|  |  E |  |  T |  |  G |  |  E |  | 22S |  | 23G |  E |  N |  E |  R |  A |  T |  O |  R |  |  S |  |  I |  |  E |  |  C |  |  I |
|  |  P |  |  R |  |  N |  |  P |  |  O |  |  |  |  E |  |  I |  |  R |  |  I |  |  I |  |  E |  |  L |  |  I |  |  V |
|  |  O |  |  O |  |  E |  |  O |  |  U |  |  |  |  T |  |  C |  |  A |  |  C |  |  T |  |  L |  |  C |  |  R |  |  E |
|  |  L |  |  M |  |  T |  |  L |  |  T |  |  |  |  |  |  F |  |  C |  |  C |  |  E |  |  D |  |  I |  |  C |  |  C |
| 24N |  E |  G |  A |  T |  I |  V |  E |  C |  H |  A |  R |  G |  E |  |  I |  |  T |  |  U |  |  L |  |  L |  |  R |  |  U |  |  H |
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|  |  |  |  N |  |  F |  |  | 25N |  O |  R |  T |  H |  P |  O |  L |  E |  |  |  R |  | 26C |  O |  N |  D |  U |  C |  T |  O |  R |
|  |  |  |  E |  |  I |  |  |  |  L |  |  |  |  |  |  D |  |  |  |  E |  |  H |  |  E |  |  I |  |  |  |  G |
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|  |  |  |  |  |  L |  |  |  |  |  |  |  | 27M |  |  | 28B |  A |  T |  T |  E |  R |  Y |  |  |  |  |  |  |  |
|  |  |  |  |  |  D |  |  |  |  |  |  |  |  O |  |  |  |  |  |  |  |  G |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  | 29E |  L |  E |  C |  T |  R |  I |  C |  F |  O |  R |  C |  E |  |  |  |  |  |  |  |  |
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| 30T |  R |  A |  N |  S |  F |  E |  R |  O |  F |  E |  N |  E |  R |  G |  Y |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| **Across****3.** Charges that don't move (neutral)**4.** Imbalance of electrons on an object creates **8.** Electrons cannot move easily through this material **11.** North and South Pole **23.** Is a device that transforms mechanical energy into electrical energy**24.** Electrons **25.** Pole that points to the North Pole **26.** Electrons can move easily through this material**28.** Source of power **29.** Attracted or repelled force exerted by all charged objects on each other **30.** Energy changing forms  | **Down****1.** The area where magnetic force is exerted**2.** A core made of solid or laminated iron, or some other magnetic material which may contain very little iron.**5.** The direction in which the north end of a compass needle points**6.** Go farther (opposite)**7.** The measurement for voltage **9.** The North Pole magnet **10.** South Pole magnet **12.** A circuit with more than one path for extricate current to flow **13.** A circuit with only one path for electric current to flow **14.** Surrounds every electric charge & exerts force on other electric charges **15.** The flow of electric charge**16.** Protons**17.** iron core that has copper coils wrapped around it and electric current**18.** Attracting each other **19.** An object that attracts or repels certain objects **20.** the area where magnetic force is exerted**21.** Come close**22.** Pole of the magnet that points to South Pole **27.** A machine that converts energy |