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

Electricity and Magnetism

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