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

Material Science Puzzle

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1C |  |  |  |  |
|  |  |  |  | 2D |  U |  C |  T |  I |  L |  I |  T |  Y |  |  |  H |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  | 3P |  |  E |  |  |  |  |
|  |  |  |  | 4T |  |  |  |  |  |  |  |  |  O |  | 5M |  E |  T |  A |  L |
|  |  |  |  |  I |  |  |  | 6L |  |  |  |  |  L |  |  I |  |  |  |  |
|  |  |  | 7P |  L |  A |  S |  T |  I |  C |  |  |  |  Y |  |  S |  |  |  | 8P |
|  |  |  |  |  E |  |  |  |  G |  |  |  |  |  M |  |  T |  | 9T |  |  O |
|  |  |  |  |  |  |  |  |  H |  |  | 10E |  |  E |  |  R |  |  O |  |  P |
|  |  | 11C |  | 12I |  | 13M |  E |  T |  A |  L |  L |  U |  R |  G |  Y |  |  U |  |  S |
|  |  |  O |  |  N |  |  |  |  |  |  |  A |  |  |  |  |  |  G |  |  I |
|  |  |  M |  |  E |  | 14P |  |  |  |  |  S |  | 15A |  |  |  |  H |  |  C |
|  |  |  P |  |  R |  |  A |  | 16B |  R |  I |  T |  T |  L |  E |  |  |  N |  |  L |
|  |  |  O |  |  T |  |  P |  |  |  |  |  I |  |  L |  |  |  |  E |  |  E |
|  |  |  S |  |  | 17C |  E |  R |  A |  M |  I |  C |  |  O |  |  |  |  S |  |  S |
|  |  |  I |  | 18M |  |  R |  |  |  |  |  |  |  Y |  |  |  |  S |  |  T |
|  | 19S |  T |  R |  E |  T |  C |  H |  E |  D |  |  |  |  |  |  |  |  |  |  I |
|  |  |  E |  |  D |  |  L |  |  |  |  |  |  |  |  | 20H |  |  |  |  C |
|  |  |  |  |  U |  |  I |  |  |  |  |  |  |  |  |  I |  |  |  |  K |
|  |  |  |  |  I |  | 21P |  L |  A |  S |  T |  I |  C |  B |  A |  G |  |  |  |  |
|  |  |  |  |  M |  |  |  |  |  |  |  |  |  |  |  H |  |  |  |  |

|  |  |
| --- | --- |
| **Across****2.** Ability of a material to undergo permanent deformation through cross-section reductions and elongation without fracture.**5.** Category of materials that consists of aluminum, copper, steel (iron alloy), nickel, and titanium**7.** Irreversible deformation of the form or dimension of a solid body under stress.**13.** A materials scientist uses his/her combined knowledge of physics, chemistry and \_\_\_\_\_\_\_\_\_\_\_\_\_\_ to exploit property-structure combinations for practical use. **16.** Ability of a material to break, snap, crack or fail easily when subjected to external loads.**17.** Category of materials that includes clay, silica glass, alumina, and quartz**19.** Some polymers can be \_\_\_\_\_\_\_\_ to 1000% the original length**21.** In our lab we used a \_\_\_\_\_\_\_\_\_\_\_\_ to represent polymers. | **Down****1.** Material Science is a branch of science that focuses on materials; interdisciplinary field composed of physics and \_\_\_\_\_\_\_\_\_.**3.** Category of materials that includes PVC, teflon, various plastics, adhesives, and kevlar**4.** Mrs. Schneider had a single \_\_\_\_\_\_ to represent ceramics.**6.** Polymers are \_\_\_\_\_\_\_\_weight.**8.** The example of a composite in our lab was a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**9.** Able to withstand great strain without tearing or cracking**10.** Reversible deformation of the form or dimensions of a solid body under stress.**11.** Category of materials that includes wood, carbon fiber resins, and concrete**12.** Polymers are \_\_\_\_\_ to corrosive chemical environments**14.** Our example of a metal was a \_\_\_\_\_\_\_\_\_\_\_\_\_.**15.** A mixtures of two or more metal and nonmetal elements (for example, steel) is called an \_\_\_\_\_**18.** Metals have a \_\_\_\_\_\_\_\_\_\_ melting point.**20.** Metals are \_\_\_\_\_\_\_\_\_\_\_\_\_ strength |