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

Bridge Engineering

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|  |  |  |  |  |  | 19  C | A | B | L | E | S | T | A | Y | E | D |  | G |  |  |  |  |  |  |  |  |  |  |  |
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| **Across**  **2.** A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ bridge uses shapes such as triangles and trapezoids to give it strength.  **9.** Force caused by the act of being squeezed together.  **11.** A structural support; to strengthen and stiffen a structure to resist loads.  **12.** A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ bridge has a curved bottom and is usually supported at the ends. Covers small distances usually over a small stream or uneven surface.  **13.** The outermost end supports on a bridge, which carry the load from the deck  **14.** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ bridges, also known as stringer bridges, are the simplest structural forms for bridge spans supported by an abutment or pier at each end.  **15.** A strain produced when material is twisted  **18.** The steps that engineers use to design something to solve a problem  **19.** A \_\_\_\_\_\_\_\_\_\_\_\_\_ bridge uses cables to distribute the tension load to usually a central or pair of vertical beams. | **Down**  **1.** A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ bridge is meant to cover great distances. Usually very expensive to make but are very appealing. (Example: golden gate bridge)  **3.** An engineer who plans, designs, and supervises the construction of facilities essential to modern life. (examples: bridges, buildings, roads, etc..)  **4.** A mixture of water, sand, small stones, and a gray powder called cement.  **5.** A force caused by the state of being stretched.  **6.** The vertical structure in a suspension bridge or cable staryed bridge from which cables are hung  **7.** The distance a bridge extends between two supports.  **8.** Supported roadway on a bridge.  **10.** A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ bridge is a bridge built using structures that project horizontally into space, supported on only one end.  **16.** A structure built over an obstacle, such as a river or a road.  **17.** The weight of the bridge that must be supported by the structure of the bridge. |