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|  | PLTW_M_L_4CP |

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| **Project 4.3 Graphical Modeling Puzzle Cube Multi-View Drawings of Selected Design** |

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| Elements | Weight | 5 Points | 4 Points | 3 Points | 2 Points | 1-0 Points | Total |
| **Multi-View Drawings of Selected Design** |  | Drawing includes all five puzzle pieces.  | Drawing includes four puzzle pieces. | Drawing includes three puzzle pieces. | Drawing includes two puzzle pieces. | Drawing includes one puzzle piece. |  |
| **Sketching Technique** |  | Shows excellent line quality. Lines are straight, follow the orthographic grid paper and are of the correct line weight.Best front view chosen. All object and hidden lines included. Joints between individual wooden cubes not shown. | Shows good line quality. Lines are fairly straight, follow the orthographic grid paper and of the correct line weight.Best front view chosen. Most object and hidden lines included. Joints between individual wooden cubes not shown. | Shows fair line quality. Lines are fairly straight, stray from the orthographic grid paper and vary in thickness.Front view chosen is fair. Most object and hidden lines included. Joints between individual wooden cubes sometimes shown. | Shows fair line quality. Lines are not straight, stray from the orthographic grid paper and vary in thickness.Front view chosen is fair. Most object and hidden lines included. Joints between individual wooden cubes often shown. | Lines are feathered; straight lines appear as curves.Lines converge.Front view chosen is inadequate. Some object and hidden lines included. Joints between individual wooden cubes often shown. |  |
| **Proportion** |  | Elements are sized correctly and communicated effectively. | Most elements are sized correctly and communicate the design in an acceptable manner. | Some elements are sized correctly and communicate the design in an acceptable manner. | Elements are close to the correct relationship with some distortion. | Elements have no relationship with each other. Detail is difficult to ascertain. |  |
| **Geometry** |  | Shapes are correct; rectangles have 90° corners. | Shapes are close to correct; rectangles have close to 90° corners. | Shapes are recognizable; rectangle corners are close to 90°. | Shapes are recognizable; rectangle corners vary from 90°. | Shapes are confusing; rectangle corners not consistent or close to 90°. |  |
| **Feedback** |  | Appropriate feedback given for all criteria listed. | Appropriate feedback given for most criteria listed. | Adequate feedback given for some criteria listed. | Some feedback given for some criteria listed. | Inadequate feedback given. |  |