See below the table for definitions of headings

|  |  |  |
| --- | --- | --- |
|  | **Students** | **Teachers** |
| **Task** | **Standards addressed** | **Content** | **SMP** | **PCK** | **CP** | **MKT** | **Discourse** | **FA** | **FCR** |
| Function Baseball |  | Qualitative graphing, Pythagorean Theorem | 1, 2, 3, 4, 5, 6 | X |  |  |  | X | X |
| Card Sort: Equivalent Expressions\* |  | Expressions with exponents | 3, 6, 7 | X | X |  | X | X | X |
| David and Shanna\* | F-BF.1.aF-LE.1A-SSE.1 | Exponential growth and decay | 2, 7, 8 | X | X | X |  | X | X |
| Equivalent Equations Card Sort and Student Work\* |  | Equivalence of equations and misconceptions | 3 | X |  | X |  |  | X |
| Growing Rectangles |  | Comparing Linear, Exponential and Quadratic | 1, 2, 5, 6, 7, &8 | X | X | X |  | X | X |
| Intersections\* |  | Quadratic | 2,3, possibly 5 | X |  | X | X |  | X |
| Linear, Exponential, or Quadratic Card Sort\* |  | Comparing Linear, Exponential and Quadratic | 1, 2, 3, 5, 6, 7 | X | X | X |  | X | X |
| Urban Sprawl |  | Algebraic thinking, Comparing Linear, Exponential and Quadratic | 1, 2, 3, 6, 7, 8 | X | X | X | X | X | X |
| Win Some Cash! |  | Comparing Linear, Exponential and Quadratic | 1, 2, 3, 4, 5, 6, 7 | X | X | X | X | X | X |
| Saving Money |  | Exponential Growth | 1, 2, 3, 4, 5, 6 |  |  |  |  | X | X |
| Parabola Connections |  | Quadratics | 1, 2, 3, 5, 6 | X |  | X | X | X | X |
| Operations on Functions |  | Linear and Quadratic  | 1, 2, 3, 5, 6 | X |  | X | X | X | X |
| Path Of A Baseball Thrown Upward |  | Quadratic | 1, 2, 3, 4, 5, 6, 7 | X | X | X | X | X | X |
| Falling Ladder |  | Quadratic, Pythagorean theorem | 2, 4, 5 |  |  |  |  | X | X |
| Designs To Go |  | Piecewise and Linear Functions | 1, 2, 4, 6 |  |  | X |  | X |  |
| Dangerous David\* |  | Mathematical Modeling, Quadratics | 1, 2, 3, 4, 5 | X |  | X | X |  | X |
| Sometimes, Always, Never Warmup and Task |  | Quadratics characteristics and forms | 5, 6, 7 | X |  | X | X | X | X |
| Staircase\* |  | Quadratics | 1, 2, 3, 6, 7, 8,  | X | X | X | X | X |  |
| Rich Systems\* |  | Linear functions, systems of equations | 1, 2, 3, 6, 8 | X |  | X | X | X | X |
| Trestle\* |  | Distance, Rate, and Time; Proportions | 1. 2. 3. 4. 5. 6 | X |  | X | X |  | X |
| Tiny Triangles\* |  | Algebraic thinking, quadratics | 1, 2, 3, 6, 8 | X |  | X | X | X | X |
| Seeing Structure Cards\* |  | Quadratic factoring; Seeing Structure in Expressions | 7 | X | X | X | X | X |  |
| Derby on Marco Hill |  | Mathematical Modeling | 1, 2, 3, 4, 5 | X |  | X | X | X | X |
| Rotating Triangles and Lines |  | Slope, graphing, transformations | 1, 3, 5, 6 | X |  | X | X | X | X |
| A Fair Price |  | Percent, mathematical modeling | 1, 2, 3, 4 | X |  | x | X | X | X |
| Motorcycle Race |  | Comparing Linear, Exponential and Quadratic, Systems of Equations, Modeling | 2, 3, 4, 5, 6 | X |  | X | X | X | X |
| Systems from Sequences |  | Systems of Equations | 1, 2, 3, 7, 8 | X |  | X | X | X | X |
| Algebraic Reasoning\* |  | Algebraic Reasoning | 1, 2, 3, 4, 5, 6 | X | X | X | X | X | X |
| Comparison Number Game\* |  | Quadratics | 1, 2, 3, 5, 6, 7, 8 | X | X | X | X | X | X |

* These tasks have additional materials such as facilitator notes and/or student work.

Content: General content addressed

SMP: Standards for Mathematical Practices

MKT: Mathematical Knowledge for Teaching

PCK: Pedagogical Content Knowledge:

CP: Concept Progressions

FCR: Focus, Coherence, and Rigor

FA: Formative Assessment