|  | 4850 Park Glen Road, Minneapolis, MN phone (800) 852-2435 fax (952) 54 | $416$ |  |
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|  | Correlation of Moving with Math® Extensions Grades 5-8 To Missouri's Framework for Curriculum Development |  |  |
|  |  | Student Book | Skill Builders |
|  | I. PROBLEM SOLVING |  |  |
|  | By the end of grade 8, all students should know: |  |  |
|  | A variety of problem-solving strategies (such as organizing data, drawing a picture, looking for a pattern, writing an expression using a variable) | Gr. 5: 13-15, 26, 35, 40 <br> Gr. 6: 4, 16, 17, <br> 29, 33, 41, 48 <br> Gr. 7: 13-17, <br> 21,31, 42, 43 <br> Gr. 8: 9-11, 14, <br> 76-80 | Gr. 5: 8-1, 16-1, 45-1, 45-2 <br> Gr. 6: 5-1, 5-2, 16-1, 16-2, 19-2, 45-1 to 45-3, 455, <br> Gr. 7: 14-2, 22- <br> 1, 22-2, 43-1 to 43-3, 44-1 <br> Gr. 8: 43-1 to 43- <br> 3, 47-1, 50-1 to <br> 50-3, 59-1, 60-1 |
| 2. | Computational strategies with whole numbers, decimals, fractions, and integers. | Gr. 5: 20, 27, 28, 47 <br> Gr. 6: 3, 7, 8, 19, 43 <br> Gr. 7: 15, 22, 26, 32 <br> Gr. 8: 40 | $\begin{aligned} & \text { Gr. } 5: 9-1,11-1 \text {, } \\ & 11-2,26-1,44-1, \\ & 44-2 \\ & \text { Gr. 6: 3-1, 3-2, } \\ & 26-1,43-1 \text { 49-1, } \\ & 49-2 \\ & \text { Gr. } 7: 11-5,15-1 \text {, } \\ & 43-4,50-1 \end{aligned}$ |
| 3. | Models, calculators, computers, charts, and graphs may be used to organize and solve problems. | Gr. 5: 34, 42 <br> Gr. 6: 21, 22, 25, 45, 47 <br> Gr. 7: 18, 22, 52, 53 <br> Gr. 8: 38, 39 | $\begin{aligned} & \text { Gr. } 5: 14-1,15-1 \\ & \text { to } 15-3,22-1,23- \\ & 1 \\ & \text { Gr. } 6: 11-2,13-1 \text {, } \\ & 14-1,27-2,28-2, \\ & 29-1,30-1 \\ & \text { Gr. } 7: 27-1,28-1, \\ & 45-1,50-1,52-2 \end{aligned}$ |


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| 4. | mathematical problem-solving strategies can apply to all disciplines and real-world problems. | Gr. 5: 19, 21, 33 Gr. 6: 9, 18, 19, 33, 49 <br> Gr. 7: 14, 31, 35, 38 <br> Gr. 8: 13, 14, 28, 38, 51 | Gr. 5: 46-1, 46-2 Gr. 6: 19-2, 45-4, 46-1, 46-2, 50-2 Gr. 7: 14-2, 18-1, 43-1 to 43-3, 441 , <br> Gr. 8: 19-1, 19-2, 27-1, 28-1, 45-1, 47-1, 52-2 |
|  | II. COMMUNICATION |  |  |
| 1. | The language of mathematics may be used through reading, writing, listening, and speaking. | Gr. 5: 43, 46, 64 <br> Gr. 6: 39, 49 <br> Gr. 7: 15, 22, 31, 51 | Gr. 5: 47-1, 48-1 <br> Gr. 6: 45-4 <br> Gr. 7: 14-2, 27-1, <br> 43-4, 50-1 |
| 2. | How to represent mathematical ideas with visual models. | Gr. 5: 30, 41 <br> Gr. 6: 27, 41 <br> Gr. 7: 29, 71 <br> Gr. 8: 7, 33 | Gr. 5: 21-1 <br> Gr. 6: 15-1 <br> Gr. 7: 13-1, 13-2 <br> Gr. 8: 1-1, 7-1, 8- <br> 1, 9-1, 10-1 |
| 3. | Mathematical symbols may be used to represent a variety of situations. | Gr. 5: 35 <br> Gr. 6: 36 <br> Gr. 7: 71, 72 | Gr. 5: 16-1 <br> Gr. 7: 39-1 |
| 4. | That information may be organized in a variety of ways. | Gr. 5: 29, 42 <br> Gr. 6: 23 <br> Gr. 7: 29 <br> Gr. 8: 27 | Gr. 5: 22-1, 23-1 Gr. 7: 13-1 to 133 Gr. 8: 18-1 |
|  | III. REASONING |  |  |
| 1. | Information may be organized in a variety of forms to look for patterns and relationships. | Gr. 5: 10, 11 <br> Gr. 6: 1, 23, 26 <br> Gr. 7: 3, 10, 25 <br> Gr. 8: 2, 29, 34, 35 | Gr. 5: 49-1, 49-2 <br> Gr. 6: 1-1 <br> Gr. 7: 5-1, 9-1, <br> 11-4, 26-2 <br> Gr. 8: 5-1, 20-1, <br> 20-2, 25-1, 25-2 |
| 2. | Results must be justified. | Gr. 5: 49 | $\begin{aligned} & \text { Gr. 5: } 45-3 \text { to } 45 \\ & 5 \end{aligned}$ |


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| 3. | Geometric and number properties. | Gr. 5: 57-59 <br> Gr. 6: 42 <br> Gr. 7: 7-9, 11, 28 <br> Gr. 8: 74, 75 | $\begin{aligned} & \text { Gr. 5: 38-1, } 38-2 \text {, } \\ & 39-1 \\ & \text { Gr. 7: } 7-1,8-1, \\ & 10-1,10-2,12-1 \\ & \text { to } 12-3 \\ & \text { Gr. 8: } 58-4 \end{aligned}$ |
| IV. CONNECTIONS |  |  |  |
|  | Problems may be looked at in more than one way. | Gr. 5: 7, 39, 44 <br> Gr. 6: 33, 37 <br> Gr. 7: 23, 29, 38, 46 <br> Gr. 8: 16 | Gr. 5: 4-1, 19-1, 24-1 <br> GR. 6: 19-2, 23- <br> 1, 23-2 <br> GR. 7: 13-1 to 133 |
| 2. | Mathematics is used on other subject areas. | Gr. 5: 43 Gr. 6: 33, 60 Gr. 7: 62 | Gr. 6: 19-2, 41-1 <br> Gr. 7: 34-1 |
| 3. | Mathematics is used in the real world. | Gr. 5: 8, 15 <br> Gr. 6: 28, 42 <br> Gr. 7: 20, 33, 35, <br> 62 <br> Gr. 8: 14, 25, 37, 50 | Gr. 5: 5-1, 5-2, 81 <br> Gr. 6: 18-1 <br> Gr. 7: 16-1, 16-2, <br> 17-1, 18-1, 34-1, <br> 48-1, 48-2 <br> Gr. 8: 44-1, 47-1 |
| V. NUMBER SENSE |  |  |  |
| 1. | Addition, subtraction, multiplication, and division with rational numbers. | Gr. 5: 17, 24, 25, 37, 38 <br> Gr. 6: 10, 11, 30, 31 <br> Gr. 7: 7-9, 11, <br> 33, 39, 44, 45 <br> Gr. 8: 20, 21, 31, 32, 71-73 | Gr. 5: 8-3, 10-2, $10-3,17-1$ to $17-$ 4 <br> Gr. 6: 8-1, 8-2, 9- <br> 1, 17-1, 17-2 <br> Gr. 7: 7-1, 8-1, <br> 10-1, 10-2, 16-1, <br> 16-2, 17-1, 18-1, <br> 34-1 <br> Gr. 8: 12-1, 12-2, <br> 13-1, 13-2, 22-1, <br> 23-1, 23-2, 58-1 <br> to 58-3 |
| 2. | Numbers and their relationships can be represented in multiple forms. | Gr. 5: 5, 6 <br> Gr. 6: 2, 23, 35, 40 <br> Gr. 7: 3, 4, 36 <br> Gr. 8: 1, 36 | Gr. 5: 3-1, 3-2 <br> Gr. 6: 2-1, 21-1, 22-1, 25-1 <br> Gr. 7: 3-1, 5-1,19- <br> 1, 19-2 <br> Gr. 8: 4-1, 26-1, <br> 26-2, 46-1, 57-2 |


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| 3. | The appropriate use of technology. |  |  |
|  | VI. GEOMETRIC AND SPATIAL SENSE |  |  |
| 1. | Structures of measurement systems. | Gr. 5: 1, 54-57 Gr. 6: 51, 55, 58 Gr 7: 56, 57, 6365, 73 <br> Gr. 8: 47, 60-63 | Gr. 5: 35-1, 36-1, 38-1 <br> Gr. 6: 36-2, 37-1, 39-1, 39-2, 42-1 Gr. 7: 30-1, 30-2, 34-2, 36-1 <br> Gr. 8: 32-2, 39-1, 40-1, 41-1, 55-1, 55-2 |
| 2. | Descriptions of two- and three-dimensional shapes and their relationships. | Gr. 5: 51, 52 <br> Gr. 6: 52, 53, 56, 57 <br> Gr. 7: 54, 55, 5961 <br> Gr. 8: 42, 44-47, 58-61 | $\begin{aligned} & \text { Gr. 5: 31-2, 32-1, } \\ & 32-, 33-1,37-1 \\ & \text { Gr. 6: } 33-1,34-1 \text {, } \\ & 38-1,38-2 \\ & \text { Gr. 7: 29-1, 29-2, } \\ & 31-1,32-1,33-1 \\ & \text { Gr. 8: 29-1, 31-1, } \\ & 31-2,32-1,32-2, \\ & 38-1,39-1 \end{aligned}$ |
| 3. | Geometric shapes are found in the real world. | Gr. 5: 48, 53, 54 Gr. 6: 50, 51, 54, 59 <br> Gr. 7: 56, 57 <br> Gr. 8: 33, 42, 52, 53 | 5E: 34-1, 35-1 6E: 32-1, 31-1, 37-1, 35-1, 40-1 <br> 7E: 30-1, 30-2 <br> 8E: 29-1, 53-1 |
|  | VII. DATA ANALYSIS, PROBABILITY AND STATISTICS |  |  |
| 1. | Standard measures of central tendency. | Gr. 5: 22, 45 <br> Gr. 6: 19, 24, 37, 62 <br> Gr. 7: 65-67, 63 Gr. 8: 41, 42, 48, 49, 56, 57, 67, 68 | Gr. 5: 25-1 <br> Gr. 6: 12-1, 12-2, 23-1, 23-2 <br> Gr. 7: 34-2, 35-1, 35-2, 37-1 <br> Gr. 8: 29-1, 33-1, <br> 34-1, 35-1, 36-1, <br> 37-1, 37-2, 48-1 |


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| 2. | Methods to analyze data. | Gr. 5: 44, 61, 62 <br> Gr. 6: 24, 64 <br> Gr. 7: 16, 65, 67 <br> Gr. 8: 48, 49 | Gr. 5: 24-1, 41-1, 42-1 <br> Gr. 6: 12-1, 12-2, 23-1, 23-2 <br> Gr. 7: 35-1 <br> Gr. 8: 33-1 |
| 3. | Methods of representing analyzed data. | Gr. 5: 50, 60, 63 <br> Gr. 6: 61, 63 <br> Gr.7: 58, 78-80 <br> Gr. 8: 15 | Gr. 5: 31-1, 40-1, 47-2 <br> Gr. 6: 44-1, 48-1 <br> Gr. 7: 46-1, 47-1 <br> to 47-3 <br> Gr. 8: 47-2 |
| 4. | Similarities and differences in theoretical and experimental probabilities. | Gr. 5: 61 <br> Gr. 6: 20, 60 <br> Gr. 7: 67, 77 <br> Gr. 8: 26, 35 | Gr. 5:: 41-1 <br> Gr. 6: 11-1, 11-3, 41-1 <br> Gr. 7: 35-1, 43-6, 46-1,4 7-1 <br> Gr. 8: 47-3 |
| 5. | The appropriate use of technology. | Gr. 7: 71, 79 | Gr. 7: 47-2 |
|  | VIII. PATTERNS AND RELATIONSHIPS |  |  |
| 1. | Mathematical ideas may be represented with visual models. | Gr. 5: 1, 35 <br> Gr. 6: 29 <br> Gr. 7: 3, 10 <br> Gr. 8: 19, 24, 76 | Gr. 5: 16-1 <br> gr. 6: 16-1, 16-2 <br> Gr. 7: 5-1, 9-1 <br> Gr. 8: 16-1, 17-1 |
| 2. | mathematical symbols can be used to represent real-world situations. | Gr. 5: 31 <br> Gr. 6: 32, 39 <br> Gr. 7: 30, 40, 41 <br> Gr. 8: 23, 25, 64, 65 | Gr. 5: 12-1 to 123 <br> Gr. 6: 19-1 <br> Gr. 7: 14-1, 21-1, 21-2 <br> Gr. 8: 56-1 |
| 3. | Patterns and relationships can be represented in a variety of ways. | Gr. 5: 2, 8 <br> Gr. 6: 12, 15, 46 <br> Gr. 7: 3, 7, 24, <br> 25, 48 <br> Gr. 8: 5, 8, 18, 22 | Gr. 5: 1-1, 5-2, 53 <br> Gr. 6: 10-1, 28-1 <br> Gr. 7: 5-1, 7-1,11- <br> 1 to 11-4, 25-2, <br> 26-2 <br> Gr. 8: 12-1, 14-1, 15-1 |


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|  | Information can be organized to look for a pattern or relationship. | Gr. 5: 3, 4, 9, 10 <br> Gr. 6: 14, 15 <br> Gr. 7: 2, 6 <br> Gr. 8: 30, 68, 69 | Gr. 5:2-1, 6-1, 71 <br> Gr. 6: 50-1 <br> Gr. 7: 6-1, 6-2 <br> Gr. 8: 21-1, 48-1, 58-4 |
| 5. | Patterns can be geometric and/or numeric. | Gr. 5: 16, 23, 36 <br> Gr. 6: 13, 15, 38 <br> Gr. 7: 6, 27, 49 <br> Gr. 8: 4, 17, 54, <br> 55, 70 | $\begin{aligned} & \text { Gr. 5: 8-2, 10-1, } \\ & 12-3 \\ & \text { Gr. 6: 10-2, 10-3, } \\ & 24-1 \\ & \text { Gr. 7: 6-1, 6-2, } \\ & 26-1 \\ & \text { Gr. 8: 3-1, 11-1, } \\ & 54-1,49-1 \end{aligned}$ |
|  | IX. MATHEMATICAL SYSTEMS AND NUMBER THEORY |  |  |
|  | Commutative, associative, and distributive properties. | Gr. 5: 47, 49 <br> Gr. 6: 5, 6, 9, 11, <br> 34 <br> Gr. 7: 5 <br> Gr. 8: 3, 77 | $\begin{aligned} & \text { Gr. 5: 26-1, 45-3, } \\ & 45-4 \\ & \text { Gr. 6: 6-1, 7-1, 9- } \\ & 1,20-1,27-1,50- \\ & 2 \\ & \text { Gr. 7: } 2-1,2-2 \\ & \text { Gr. 8: } 21-2 \end{aligned}$ |
| 2. | Properties of zero and one. | Gr. 5: 18 <br> Gr. 6: 42 <br> Gr. 7: 7, 8, 12, 21 <br> Gr. 8: 12 | Gr. 5: 50-1 <br> Gr. 7:1-1, 7-1, 8- <br> 1, 44-2 <br> Gr. 8: 24-1 |
| 3. | Patterns may be used to describe relationships for multiples, factors, and exponents. | Gr. 5: 32, 36 <br> Gr. 6: 46, 15 <br> Gr. 7: 1, 4, 10, <br> 37, 47 <br> Gr. 8: 6, 8, 39 | Gr. 5: 12-3, 13-1 <br> Gr. 6: 28-1 <br> Gr. 7: 3-1, 4-1, 4- <br> 2, 9-1, 20-1, 25- <br> 1 <br> Gr. 8: 6-2, 42-1, <br> 51-1 |
| 4. | Order of operations. | Gr. 5: 49 <br> Gr. 7: 7, 8, 15 Gr. 8: 11 | Gr. 5: 45-3 to 455 <br> Gr. 7: 7-1, 8-1, 43-4 <br> Gr. 8: 43-3 |
|  | X. DISCRETE MATHEMATICS |  |  |


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| :--- | :--- | :---: | :---: |
| 1. Definition and example of patterns. | Gr. 5: 36 <br> Gr. 6: 32 <br> Gr. 7: 26, 50 | Gr. 5: 12-3 <br> Gr. 6: 19-1 <br> Gr. 7: 11-5, 46-1 |  |
|  |  |  |  |
| 2. Definition and example of tree diagrams. |  |  |  |
| 3. Definition and examples of Venn diagrams. |  |  |  |
| 4. Definition and examples of networks. |  |  |  |

