**Scope and Sequence for Mathworks *Math Explorations 2***

**(90-minute blocks meeting every other day)**

**1st 6 Weeks**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Chapter** | **Number of Blocks** | **TEKS** | **Section** | **Concept** |
| **1**  **Exploring Integers on the Number Line** | ½ | 7.1C, 7.2A | 1.1 | Building Number Lines |
| ¼ | 7.1G | 1.2 | Less Than and Greater Than |
| ¼ | 7.1G | 1.3 | Distance Between Points, Absolute Value |
| ¼ |  | Activities | Chapter 1 activities in TE (Bingo) |
| ¼ |  |  | Short Quiz |
| ½ |  | Review | Review Problems and Challenge Problems (pp. 18-20) |
| ½ |  | Assess | Test |
| **Sub-Total** | **2.5** |  |  |  |
| **2**  **Adding and Subtracting on the Number Line** | ½ | 7.1C, 7.1G, 7.3A | 2.1 | Addition of Integers |
| ½ | 7.1A, 7.1C, 7.3A | 2.2 | Subtraction of Integers |
| ½ | 7.1C, 7.1D, 7.1G, 7.3A, 7.3B | 2.3 | Adding and Subtracting Larger Numbers |
| ½ | 7.1F, 7.1G | 2.4 | Integer Properties and Terminology |
| ½ | 7.1C, 7.1E, 7.3A | 2.5 | The Chip Model |
| ½ |  | Activities | Chapter 2 activities in TE |
| ½ |  | Review | Review Problems and Challenge Problems (pp. 51-53) |
| 1 |  | Assess | Quiz and Test |
| **Sub-Total** | **4.5** |  |  |  |
| **3**  **Modeling Problems Algebraically** | ½ | 7.10A | 3.1 | Variables and Expressions |
| ½ | 7.1G, 7.10A | 3.2 | Equations |
| ½ | 7.1D, 7.11A, 7,11B | 3.3 | Solving Equations with Subtraction |
| ½ | 7.11A, 7.11B | 3.4 | Solving Equations with Addition |
| ½ | 7.1D, 7.10B, 7.11A | 3.5 | Equations and Inequalities on a Number Line |
| ½ |  | Activities | Chapter 3 activities in TE |
| ½ |  | Review | Review Problems and Challenge Problems (pp. 92-95) |
| 1 |  | Assess | Quiz and Test |
| **Sub-Total** | **4.5** |  |  |  |
| **Total** | **11.5** |  |  |  |

**2nd 6 Weeks**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Chapter** | **Number of Blocks** | **TEKS** | **Section** | **Concept** |
| **4**  **Multiplication and Division** | ½ | 7.3A, 7.4A | 4.1 | Multiplication of Integers |
| ½ | 7.1D, 7.3A | 4.2 | Area Model for Multiplication and the Distributive Property |
| ½ | 7.1E, 7.3B | 4.3 | Applications of Multiplication |
| ½ | 7.3A, 7.3B | 4.4 | The Linear Model for Division |
| ½ | 7.1D, 7.1F, 7.3A, 7.3B | 4.5 | The Division Algorithm |
| ½ | 7.1D, 7.10A, 7.10B, 7.10C 7.11A, 7.11B | 4.6 | Solving Equations |
| ½ |  | Activities | Chapter 4 activities in TE |
| ½ |  | Review | Review Problems and Challenge Problems (pp. 143-145) |
| 1 |  | Assess | Quiz and Test |
| **Sub-Total** | **5** |  |  |  |
| **5**  **Patterns and Functions** | 1/8 | 7.1D | 5.1 | Graphing on the Coordinate Plane |
| 3/8 | 7.1G | 5.2 | Translations and Reflections |
| ½ | 7.1A, 7.1D, 7.7A | 5.3 | Functions |
| ½ | 7.1D, 7.1E, 7.7A | 5.4 | Graphing Functions |
| ½ | 7.1D, 7.1G, 7.4A, 7.4C, 7.7A | 5.5 | Applications of Linear Functions |
| ½ | 7.4A | 5.6 | Patterns and Sequences |
| ½ |  | Activities | Chapter 5 activities in TE |
| ½ |  | Review | Review Problems and Challenge Problems (pp. 198-201) |
| 1 |  | Assess | Quiz and Test |
| **Sub-Total** | **4.5** |  |  |  |
| **6**  **Decimal Representations and Operations** | ½ | 7.1G, 7.3A, 7.3B | 6.1 | Decimals |
| ½ | 7.1D, 7.1E, 7.1F, 7.3A, 7.3B | 6.2 | Multiplication of Decimals |
| ½ | 7.1B, 7.3A, 7.3B | 6.3 | Long Division |
| ½ | 7.1F, 7.3A, 7.3B | 6.4 | Division of Decimals |
| ½ |  | Activities | Chapter 6 activities in TE |
| ½ |  | Review | Review Problems and Challenge Problems (pp. 234-236) |
| 1 |  | Assess | Quiz and Test |
| **Sub-Total** | **4** |  |  |  |
| **Total** | **13.5** |  |  |  |

**3rd 6 Weeks**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Chapter** | **Number of Blocks** | **TEKS** | **Section** | **Concept** |
| **7**  **Number Theory** | ½ | 7.1D | 7.1 | Divisibility, Factors, and Multiples |
| ½ | 7.1E, 7.2A | 7.2 | Prime and Composite Numbers |
| ½ | 7.3A | 7.3 | Exponents and Order of Operations |
| ½ | 7.1D | 7.4 | Square Numbers and Square Roots |
| ½ | 7.1D | 7.5 | Unique Prime Factorization |
| ½ |  | Activities | Chapter 7 activities in TE |
| ½ |  | Review | Review Problems and Challenge Problems (pp. 276-279) |
| 1 |  | Assess | Quiz and Test |
| **Sub-Total** | **4.5** |  |  |  |
| **8**  **Adding and Subtracting Fractions** | ½ | 7.1C, 7.1D, 7.1E | 8.1 | GCF and Equivalent Fractions |
| ½ | 7.1C, | 8.2 | Unit Fractions and Mixed Numbers |
| ½ | 7.1C, 7.1D, 7.1E | 8.3 | Common Multiples and the LCM |
| ½ | 7.3A, 7.3B | 8.4 | Addition and Subtractions of Fractions |
| ½ | 7.1B, 7.1C, 7.1D, 7.3B | 8.5 | Common Denominators and Mixed Numbers |
| ½ |  | Activities | Chapter 8 activities in TE |
| ½ |  | Review | Review Problems and Challenge Problems (pp. 332-336) |
| 1 |  | Assess | Quiz and Test |
| **Sub-Total** | **4.5** |  |  |  |
| **9**  **Multiplying and Dividing Fractions** | ½ | 7.3A | 9.1 | Multiplication of Fractions |
| ½ | 7.1D, 7.3A, 7.3B | 9.2 | Division of Fractions |
| ½ | 7.1C,  7.3A, 7.3B | 9.3 | Fraction, Decimal and Percent Equivalents |
| ½ | 7.1A, 7.1D, 7.1G, 7.11A | 9.4 | Fractions and Alternatives |
| ½ |  | Activities | Chapter 9 activities in TE |
| ½ |  | Review | Review Problems and Challenge Problems (pp. 380-382) |
| 1 |  | Assess | Quiz and Test |
| **Sub-Total** | **4** |  |  |  |
| **Total** | **13** |  |  |  |

**4th 6 Weeks**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Chapter** | **Number of Blocks** | **TEKS** | **Section** | **Concept** |
| **10**  **Rates, Ratios, and Proportions** | ½ | 7.4A, 7.4B, 7.4E | 10.1 | Rates and Ratios |
| ½ | 7.1D, 7.4A, 7.4B, 7.4C | 10.2 | Rates of Change and Linear Functions |
| ½ | 7.4A, 7.4E | 10.3 | Proportions |
| ½ | 7.1A, 7.1D, 7.4D, 7.13F | 10.4 | Percents and Proportions |
| ½ | 7.1F, 7.5C | 10.5 | Scaling |
| ½ | 7.5A, 7.5C | 10.6 | Scaling and Similarity |
| 1 |  | Activities | Chapter 10 activities in TE |
| ½ |  | Review | Review Problems and Challenge Problems (pp. 453-457) |
| 1 |  | Assess | Quiz and Test |
| **Sub-Total** | **5.5** |  |  |  |
| **11**  **Geometry** | ½ | 7.11C | 11.1 | Measuring and Angles |
| ½ | 7.1D, 7.11C | 11.2 | Angles in a Triangle |
| ½ | 7.9C | 11.3 | Two-Dimensional Figures |
| 1 | 8.6C,  8.7C | 11.4 | Pythagorean Theorem -Optional – (Necessary for students planning to skip 8th grade math.) |
| ½ | 7.5B, 7.8C, 7.9B | 11.5 | Circles |
| ½ | 7.8A, 7.8B, 7.9A | 11.6 | Three-Dimensional Shapes |
| 1 | 7.1D, 7.9C, 7.9D | 11.7 | Surface Area and Nets |
| 1 |  | Activities | Chapter 11 activities in TE |
| ½ |  | Review | Review Problems and Challenge Problems (pp. 541-547) |
| 1 |  | Assess | Quiz and Test |
| **Sub-Total** | **7** |  |  |  |
| **Total** | **12.5** |  |  |  |

**5th 6th Weeks**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Chapter** | **Number of Blocks** | **TEKS** | **Section** | **Concept** |
| **12**  **Data Analysis** | 1 | 7.1B, 7.1G, 7.6G, 12.1 | 12.1 | Measures of Central Tendency |
| 1 | 7.1D, 7.1E, 7.6B, 7.6G | 12.2 | Graphing Data |
| 2 | 7.1A, 7.1E, 7.6A, 7.6B, 7.6C, 7.6D, 7.6E, 7.6F, 7.6H, 7.6I | 12.3 | Probability |
| 1 | 7.1D, 7.6D | 12.4 | Independent Events |
| 1 |  | Activities | Chapter 12 activities in TE |
| ½ |  | Review | Review Problems and Challenge Problems (pp. 608-612) |
| 1 |  | Assess | Quiz and Test |
| **Sub-Total** | **7.5** |  |  |  |
| **13**  **Personal Finance** | ½ | 7.1A, 7.13E | 13.1 | Simple and Compound Interest |
| ½ | 7.13B, 7.13C, 7.13D | 13.2 | Making up a Personal Budget |
| ½ | 7.13A | 13.3 | Taxes |
| 1½ |  | Activities | Select Activities and Explorations from Student Appendix on Finance |
| ½ |  | Review | Review Problems and Challenge Problems (pp. 380-382) |
| 1 |  | Assess | Quiz and Test |
| **Sub-Total** | **4.5** |  |  |  |
| **Total** | **12** |  |  |  |

Concepts have been divided into a 6-week timeline allowing time for additional activities such as back-to-school rules and procedures, benchmarks, state testing, and final exams.