A supplemental math curriculum series based on the Common Core State Standards for Grades 3, 4, and 5.

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SMc Curriculum
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www.DiggingIntoMath.com
About the Program

The Digging into Math ©2014 Program is a supplemental math curriculum based on the Common Core State Standards (CCSS) for Grades 3, 4 and 5. The program consists of 9 standards-based units. Each unit contains 7 to 14 lessons that specifically address targets related to clusters in the CCSS with a focus on the critical/major topics at each grade.

The Digging into Math Program can be used in a variety of ways in the classroom.

Elementary Classrooms
- Supplement current curriculum to support grade-level Common Core State Standards.
- Use as a Tier 2 intervention for struggling students.
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- Use as an assessment of students’ abilities in pre-requisite standards.
- Use for individualized instruction based on student need.
- Accelerate the students through previous grade-level standards.

Find sample lessons and assessments at www.DiggingIntoMath.com

Preview, Pricing and Order Information

Preview:
View samples of student lessons and assessments by grade-level at www.DiggingIntoMath.com

What is Included in a Site License?
- CD which includes all Student Editions and Teacher Guides for the 9 Digging into Math units. One CD per teacher.
- Permission to make unlimited copies of materials.

Site License Pricing:
- Upgrade for schools currently holding a ©2011 Digging into Math site license.
  Price: $600 per school
- New ©2014 Digging into Math site license.
  Price: $1,500 per school

Additional Items Available for Purchase:
- Grade-level spiral bound copies of Teacher Guides.
  Price: $49.99 each
- Color Student Workbooks of Individual Units
  Price: $2.29 per workbook

Ordering Information:
Order online or download an order form spreadsheet at www.DiggingIntoMath.com

Questions? Please Contact...
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Email: mccaws@SMcCurriculum.com
## Stage C - Grade 5

<table>
<thead>
<tr>
<th>Grade 5</th>
<th>Unit</th>
<th>Common Core State Standard Domains and Clusters</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>OA</strong></td>
</tr>
<tr>
<td></td>
<td>Unit C1</td>
<td>Write and interpret numerical expressions.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Analyze patterns and relationships.</td>
</tr>
<tr>
<td></td>
<td>Digging into Operations</td>
<td><strong>NBT</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Understand the place value system.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Perform operations with multi-digit whole numbers and with decimals to hundredths.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>MD</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Convert like measurement units within a given measurement system.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>G</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Graph points on the coordinate plane to solve real-world and mathematical problems.</td>
</tr>
<tr>
<td></td>
<td>Unit C2</td>
<td><strong>NF</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Use equivalent fractions as a strategy to add and subtract fractions.</td>
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<tr>
<td></td>
<td></td>
<td>Apply and extend previous understandings of multiplication and division to multiply and divide fractions.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>MD</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Represent and interpret data.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>G</strong></td>
</tr>
<tr>
<td></td>
<td>Unit C3</td>
<td><strong>MD</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>G</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Classify two-dimensional figures into categories based on their properties.</td>
</tr>
</tbody>
</table>

### What is in each unit?

#### For Students
- 7 to 14 lessons based on specific clusters of the Common Core State Standards.
- Practice problems for each lesson
- Skill Checks for each lesson containing selected response and constructed response items
- End of unit assessments
  - Selected Response
  - Constructed Response
  - Extended Response Tasks
- Glossary

#### For Teachers
- Common Core State Standards (CCSS) Alignment
- Learning Progressions
- Tips for “Incorporating the CCSS Mathematical Practices”
- Teaching Tips
- Communication Prompts
- Answer Keys
- Clear Learning Targets to be used with Students
Student Lesson Highlights

**Word Wall** – When vocabulary is introduced in a unit it will appear on a small brick wall at the beginning of the lesson next to the Target Box. The word will be defined within the lesson.

**Target Box** – The learning target addressed in the lesson is written in a Target Box at the beginning. The Skill Check for each lesson assesses the target.

**“You Try” Pencil** - Throughout the lesson, students will be asked to participate by trying problems. This guided practice gives students some experience with the content in the lesson before completing the Practice or Skill Check components of the lesson.

**Vocabulary** – When vocabulary words are introduced in a unit and are listed on the Word Wall for a lesson, they are highlighted and typed in bold red font within the lesson. Vocabulary words are defined when they appear in the lesson as well as in the unit glossary.

**Guided and Independent Practice**

Each lesson is designed to guide students through a concept based on a grade-level Common Core State Standard(s). The lessons have built-in practice throughout the lesson as well as independent “Practice” problems at the end of each lesson. Each lesson and Practice set spans Levels 1 through 3 on Webb’s Depth of Knowledge chart. This includes items that address procedural skill and recall, problem solving as well as justifying and/or critiquing solutions.

### Stage B - Grade 4

<table>
<thead>
<tr>
<th>Unit</th>
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</table>
| OA   | • Use the four operations with whole numbers to solve problems.  
      • Gain familiarity with factors and multiples.  
      • Generate and analyze patterns. |
| NBT  | • Generalize place value understanding for multi-digit whole numbers.  
      • Use place value understanding and properties of operations to perform multi-digit arithmetic. |
| MD   | • Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit. |
| NF   | • Extend understanding of fraction equivalence and ordering.  
      • Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.  
      • Understand decimal notation for fractions, and compare decimal fractions. |
| MD   | • Represent and interpret data. |
| MD   | • Geometric measurement: understand concepts of angle and measure angles. |
| G    | • Draw and identify lines and angles, and classify shapes by properties of their lines and angles. |
The Digging into Math Program consists of 9 units (3 per grade) addressing the Common Core State Standards for Mathematics (CCSSM) for Grades 3, 4 and 5. Each unit contains lessons that specifically address both the content standards and the standards for mathematical practice.

### Stage A - Grade 3

<table>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Unit A1 Digging into Operations</strong></td>
</tr>
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</table>
| OA   | • Represent and solve problems involving multiplication and division.  
      | • Understand properties of multiplication and the relationship between multiplication and division.  
      | • Multiply and divide within 100.  
      | • Solve problems involving the four operations, and identify and explain patterns in arithmetic. |
| NBT  | • Use place value understanding and properties of operations to perform multi-digit arithmetic. |
| MD   | • Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.  
      | • Represent and interpret data. |
|      | **Unit A2 Digging into Fractions**               |
| NF   | • Develop understanding of fractions as numbers. |
| MD   | • Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.  
      | • Represent and interpret data. |
| MD   | **Unit A3 Digging into Geometry**                |
|      | • Geometric measurement: understand concepts of area and relate area to multiplication and to addition.  
      | • Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish linear and area measurements.  
      | • Reason with shapes and their attributes. |

Sample Pages from Student Lesson

The lesson contains instruction and guided practice. A small pencil shows where students participate.

The Practice problems consist of 10 to 30 items ranging from Level 1 to 3 in Depth of Knowledge (DOK).
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                • Understand properties of multiplication and the relationship between multiplication and division.  
                • Multiply and divide within 100.  
                • Solve problems involving the four operations, and identify and explain patterns in arithmetic. |
| **NBT**       | • Use place value understanding and properties of operations to perform multi-digit arithmetic. |
| **MD**        | • Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.  
                • Represent and interpret data. |
| **NF**        | • Develop understanding of fractions as numbers. |
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• Gain familiarity with factors and multiples.  
• Generate and analyze patterns. |
| Unit B2 Digging into Fractions | • Generalize place value understanding for multi-digit whole numbers.  
• Use place value understanding and properties of operations to perform multi-digit arithmetic. |
| Unit B3 Digging into Geometry | • Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.  
• Extend understanding of fraction equivalence and ordering.  
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### Stage C - Grade 5

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| Unit C1 | Digging into Operations | OA  | - Write and interpret numerical expressions.  
- Analyze patterns and relationships. |
|       |                               | NBT | - Understand the place value system.  
- Perform operations with multi-digit whole numbers and with decimals to hundredths. |
|       |                               | MD  | - Convert like measurement units within a given measurement system. |
|       |                               | G   | - Graph points on the coordinate plane to solve real-world and mathematical problems. |
| Unit C2 | Digging into Fractions | NF  | - Use equivalent fractions as a strategy to add and subtract fractions.  
- Apply and extend previous understandings of multiplication and division to multiply and divide fractions. |
|       |                               | MD  | - Represent and interpret data. |
| Unit C3 | Digging into Geometry | MD  | - Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition. |
|       |                               | G   | - Classify two-dimensional figures into categories based on their properties. |

### What is in each unit?

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Summative & Formative Assessments

The Digging into Math program includes both formative and summative assessments as well as extended response tasks.

End of Book Assessments (Summative)

At the end of each unit, there are two types of unit assessments that test all targets from the unit. Some units have two assessments due to the length of the unit and the number of standards learned. Each assessment has two forms (A and B) and teachers can determine if the assessments should be given together or separately. On each assessment the problems are given in the order of the lessons in the unit. These tests include:

Selected Response Assessment
The selected response assessments include one to two questions per lesson that the test addresses. Test items include traditional multiple choice, true/false or yes/no and multiple choice items with more than one correct answer. This test can be used as a pre-assessment prior to the beginning of the unit or set of lessons.

Constructed Response Assessment
The constructed response assessments provide students an opportunity to show their comprehension of the learning targets without answer choices given. Test items include Depth of Knowledge (DOK) Level 3 items where students solve problems, explain their reasoning or explain the error in another student’s work.

Tasks (Formative or Summative)

There are two tasks in each unit, one appropriate to use after a lesson near the middle of the unit and one appropriate to use after a lesson near the end of the unit. Each high-cognitive task identifies the lesson after which it can be used. In addition to addressing several content standards, they are designed to promote student learning of the standards for mathematical practice and encourage students to communicate their reasoning. These can be used as classroom activities for students to productively struggle as they integrate concepts and show multiple strategies to complete a problem, or when a problem has multiple answers. They can also be used as a formative assessment.

Skill Checks (Formative)
A Skill Check is provided for each lesson. It consists of three selected response items and three constructed response items that assess student learning of the lesson target. The Skill Check is a formative assessment tool that can be used to gauge student understanding of the concepts and skills in the lesson. Each Skill Check includes questions ranging from DOK Level 1 to DOK Level 3.
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