|  |  |  |
| --- | --- | --- |
| Before  (Grade 3) | Chapter Five Standards  Grade 4 | After  (Grade 5) |
| Multiply and divide within 100. (3.OA.7) | Operations and Algebraic Thinking 4: Find all factor pairs for a whole number in the range 1-100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1-100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1-100 is prime or composite.   * I can find all the factors of a number by using models. * I can determine whether a number is a factor of a given number. * I can solve problems by using the strategy *make a list.* * I can understand the relationship between factors and multiples, and determine whether a number is a multiple of a given number. * I can determine whether a number is prime or composite. | Analyze patterns and relationships. (5.OA.3) |
| Operations and Algebraic Thinking 5: Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself.   * I can generate a number pattern and describe features of the pattern. |

Each day the math block will begin with 15 minutes of **Daily Math Review** and **Mental Math**. The focus of DMR should be either prerequisite standard skills or previous chapter concepts that were not mastered. The focus of mental math should be based on the current Chapter’s skills and concepts. Adjust the amount of questions in DMR and MM to fit into the 15 minute time block.

**Suggested Chapter Pacing**

*All lessons are paced for one day, unless otherwise indicated. Teachers may adjust to meet students’ needs.*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Launching the Chapter** | **Pre-Assessment** | **Review Prerequisite Skills**  Finding Common Factors!: TE 277G | | **Show What You Know Assessment**  Identify Tier 2 and Tier 3 Groups for Small Group Instruction. | |
| **Day before beginning Lesson 5.1** | **Vocabulary Activity**  Develop vocabulary for number sense.  TE 277F | **Vocabulary Builder**  Identify students who will need further vocabulary support for Chapter Five. | **Preview Chapter Centers**  Introduce chapter games, activities, and literature students will be using during center time. | **School – Home Letter**  Read together and send home. |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **I Can Statement** | | **Essential Question** | | **Implementation Notes** | | **Centers by Lesson** | | **Teacher Notes** |
| **Lesson 5.1**  4.OA.4 | I can find all the factors of a number by using models. | | How can you use models to find factors? | |  | | A: Flowering Factors (Orange #17)  G: Factor Farm | | Click here to enter text. |
| *5.1 Technology* | [Interactive Whiteboard Lesson](http://elementary.dmschools.org/uploads/1/3/6/0/13604257/gomath_g4_c5_l1.notebook) | [Interactive Student Edition (Engage)](http://www-k6.thinkcentral.com/content/hsp/math/gomath/na/gr4/online_interactive_teacher_book_9780544349094_/G4_Chp5_L1/launch.html) | | [Math on the Spot](http://link.brightcove.com/services/player/bcpid1861182355001?bckey=AQ~~,AAAA2fV0xfE~,Tmydk9UFFWVJKhSHBEdCMdi5yCXNIT1G&bctid=ref:En_967) | | Mega Math:  None | | Animated Math Model:  [**Skill 20: Factors and Multiples**](http://www-k6.thinkcentral.com/content/hsp/math/hspmath/go_math_2012/na/gr4/amm_9780547665047_/lesson.html?g_iGrade=4&g_iChapter=91&g_iLesson=0&strUserID=st1&g_iProduct=5&g_iSection=15&g_strState=nl&g_strSkillType=_l&g_standaloneGrade=4) |
| **Lesson 5.2**  4.OA.4 | I can determine whether a number is a factor of a given number. | | How can you tell whether one number is a factor of another number? | |  | | A: Flowering Factors (Orange #17)  A: What’s My Fact (Purple #3)  G: Factor Farm | | Click here to enter text. |
| *5.2 Technology* | [Interactive Whiteboard Lesson](http://elementary.dmschools.org/uploads/1/3/6/0/13604257/gomath_g4_c5_l2.notebook) | [Interactive Student Edition (Engage)](http://www-k6.thinkcentral.com/content/hsp/math/gomath/na/gr4/online_interactive_teacher_book_9780544349094_/G4_Chp5_L2/launch.html) | | [Math on the Spot](http://link.brightcove.com/services/player/bcpid1861182355001?bckey=AQ~~,AAAA2fV0xfE~,Tmydk9UFFWVJKhSHBEdCMdi5yCXNIT1G&bctid=ref:En_968) | | Mega Math:  [Ice Station Exploration: Artic Algebra – Level M](http://www-k6.thinkcentral.com/content/hsp/math/hspmath/na/common/mega_math_9780547585062_/megamathcd5/cm/launch.html?strActivityName=g36_2_4_M&strAssignID=1)  [Ice Station Exploration: Artic Algebra – Level N](http://www-k6.thinkcentral.com/content/hsp/math/hspmath/na/common/mega_math_9780547585062_/megamathcd5/cm/launch.html?strActivityName=g36_2_4_N&strAssignID=1) | | Animated Math Model:  **None** |
| **Lesson 5.3**  4.OA.4 | I can solve problems by using the strategy *make a list.* | | How can you use the *make a list* strategy to solve problems with common factors? | | Possible two day lesson  Mid Chapter Check Optional | | A: First One Out (Orange #5)  L: Factor Farm | | Click here to enter text. |
| *5.3 Technology* | [Interactive Whiteboard Lesson](http://elementary.dmschools.org/uploads/1/3/6/0/13604257/gomath_g4_c5_l3.notebook) | [Interactive Student Edition (Engage)](http://www-k6.thinkcentral.com/content/hsp/math/gomath/na/gr4/online_interactive_teacher_book_9780544349094_/G4_Chp5_L3/launch.html) | | [Math on the Spot](http://link.brightcove.com/services/player/bcpid1861182355001?bckey=AQ~~,AAAA2fV0xfE~,Tmydk9UFFWVJKhSHBEdCMdi5yCXNIT1G&bctid=ref:En_969) | | Mega Math:  None | | Animated Math Model:  **None** |
| **Lesson 5.4**  4.OA.4 | I can understand the relationship between factors and multiples, and determine whether a number is a multiple of a given number. | | How are factors and multiples related? | |  | | A: Prime Time (Blue #17)  L: Eratosthenes and His Sieve | | Click here to enter text. |
| *5.4 Technology* | [Interactive Whiteboard Lesson](http://elementary.dmschools.org/uploads/1/3/6/0/13604257/gomath_g4_c5_l4.notebook) | [Interactive Student Edition (Engage)](http://www-k6.thinkcentral.com/content/hsp/math/gomath/na/gr4/online_interactive_teacher_book_9780544349094_/G4_Chp5_L4/launch.html) | | [Math on the Spot](http://link.brightcove.com/services/player/bcpid1861182355001?bckey=AQ~~,AAAA2fV0xfE~,Tmydk9UFFWVJKhSHBEdCMdi5yCXNIT1G&bctid=ref:En_970) | | Mega Math:  [Ice Station Exploration: Artic Algebra – Level M](http://www-k6.thinkcentral.com/content/hsp/math/hspmath/na/common/mega_math_9780547585062_/megamathcd5/cm/launch.html?strActivityName=g36_2_4_M&strAssignID=1)  [Ice Station Exploration: Artic Algebra – Level N](http://www-k6.thinkcentral.com/content/hsp/math/hspmath/na/common/mega_math_9780547585062_/megamathcd5/cm/launch.html?strActivityName=g36_2_4_N&strAssignID=1) | | Animated Math Model:  [**Skill 20: Factors and Multiples**](http://www-k6.thinkcentral.com/content/hsp/math/hspmath/go_math_2012/na/gr4/amm_9780547665047_/lesson.html?g_iGrade=4&g_iChapter=91&g_iLesson=0&strUserID=st1&g_iProduct=5&g_iSection=15&g_strState=nl&g_strSkillType=_l&g_standaloneGrade=4) |
| **Lesson 5.5**  4.OA.4 | I can determine whether a number is prime or composite. | | How can you tell whether a number is prime or composite? | |  | | A: Follow the Leader (Orange #15)  L: Eratosthenes and His Sieve | | Click here to enter text. |
| *5.5 Technology* | [Interactive Whiteboard Lesson](http://elementary.dmschools.org/uploads/1/3/6/0/13604257/gomath_g4_c5_l5.notebook) | [Interactive Student Edition (Engage)](http://www-k6.thinkcentral.com/content/hsp/math/gomath/na/gr4/online_interactive_teacher_book_9780544349094_/G4_Chp5_L5/launch.html) | | [Math on the Spot](http://link.brightcove.com/services/player/bcpid1861182355001?bckey=AQ~~,AAAA2fV0xfE~,Tmydk9UFFWVJKhSHBEdCMdi5yCXNIT1G&bctid=ref:En_971) | | Mega Math:  None | | Animated Math Model:  [**Skill 21: Prime and Composite Numbers**](http://www-k6.thinkcentral.com/content/hsp/math/hspmath/go_math_2012/na/gr4/amm_9780547665047_/lesson.html?g_iGrade=6&g_iChapter=90&g_iLesson=19&strUserID=st1&g_iProduct=5&g_iSection=15&g_strState=nl&g_strSkillType=_l&g_standaloneGrade=4) |
| **Lesson 5.6**  4.OA.4 | I can generate a number pattern and describe features of the pattern. | | How can you make and describe patterns? | |  | | A: Follow the Leader (Orange #15)  L: Eratosthenes and His Sieve | | Click here to enter text. |
| *5.6 Technology* | [Interactive Whiteboard Lesson](http://elementary.dmschools.org/uploads/1/3/6/0/13604257/gomath_g4_c5_l6.notebook) | [Interactive Student Edition (Engage)](http://www-k6.thinkcentral.com/content/hsp/math/gomath/na/gr4/online_interactive_teacher_book_9780544349094_/G4_Chp5_L6/launch.html) | | [Math on the Spot](http://link.brightcove.com/services/player/bcpid1861182355001?bckey=AQ~~,AAAA2fV0xfE~,Tmydk9UFFWVJKhSHBEdCMdi5yCXNIT1G&bctid=ref:En_595) | | Mega Math:  [The Number Games: Tiny’s Think Tank – Level K](http://www-k6.thinkcentral.com/content/hsp/math/hspmath/na/common/mega_math_9780547585062_/megamathcd4/cm/launch.html?strActivityName=g36_1_2_K&strAssignID=1) | | Animated Math Model:  [**Skill 22: Number Patterns**](http://www-k6.thinkcentral.com/content/hsp/math/hspmath/go_math_2012/na/gr4/amm_9780547665047_/lesson.html?g_iGrade=4&g_iChapter=91&g_iLesson=3&strUserID=st1&g_iProduct=5&g_iSection=15&g_strState=nl&g_strSkillType=_l&g_standaloneGrade=4) |

|  |  |
| --- | --- |
| **Additional Resources for Chapter 5** | |
| **Operations in Algebraic Thinking 4** | **Operations in Algebraic Thinking 5** |
| [Prime and Common Factors](https://sharepoint.dmps.k12.ia.us/sites/divisions/curr/Public%20Curriculum%20Documents/Mathematics/Elementary%20Math%202013%20-%202014/4th%20Grade/Unit%201/Prime%20and%20Common%20Factors.pdf)  [More Factor Riddles](https://sharepoint.dmps.k12.ia.us/sites/divisions/curr/Public%20Curriculum%20Documents/Mathematics/Elementary%20Math%202013%20-%202014/4th%20Grade/Unit%201/More%20Factor%20Riddles.pdf)  [Factor Riddles](https://sharepoint.dmps.k12.ia.us/sites/divisions/curr/Public%20Curriculum%20Documents/Mathematics/Elementary%20Math%202013%20-%202014/4th%20Grade/Unit%201/Factor%20Riddles.pdf)  [A “Wheely” Neat Way to Look at Multiplication](https://sharepoint.dmps.k12.ia.us/sites/divisions/curr/Public%20Curriculum%20Documents/Mathematics/Elementary%20Math%202013%20-%202014/4th%20Grade/Unit%201/A%20Wheely%20Neat%20Way%20to%20Look%20at%20Multiplication.pdf)  [Prime or Composite](https://sharepoint.dmps.k12.ia.us/sites/divisions/curr/Public%20Curriculum%20Documents/Mathematics/Elementary%20Math%202013%20-%202014/4th%20Grade/Unit%201/Prime%20or%20Composite.pdf)  [Dizzy About Patterns](https://sharepoint.dmps.k12.ia.us/sites/divisions/curr/Public%20Curriculum%20Documents/Mathematics/Elementary%20Math%202013%20-%202014/4th%20Grade/Unit%201/Dizzy%20About%20Patterns.pdf) |  |