Unit 1

Factors, Multiples, and Arrays

INVESTIGATION 1

Representing Multiplication with Arrays

Day	Session	Common Core Adaptation	Common Core Standards
1	**1.1** Things That Come in Arrays		MP4, MP5 4.OA.3, 4.OA.4
2	**1.2** Making Arrays		MP4, MP5 4.OA.3, 4.OA.4
3	**1.3** Making Arrays, *continued* **③ DISCUSSION What Do You Notice About Arrays?**	**Teaching Note** **Prime and Composite Numbers to 100** Prime and composite numbers are defined in this session. Throughout the unit, look for opportunities to ask students whether numbers 1–100 are prime or composite and to explain how they know.	MP4, MP5, MP7 4.OA.3, 4.OA.4
4	**1.4** Which Combinations Do I Know?		MP7 4.OA.3, 4.OA.4
5	**1.5** Using Arrays to Multiply		MP7 4.OA.3, 4.OA.4
6	**1.6A** Multiplicative Comparison	See p. CC3.	MP1, MP2 4.OA.1, 4.OA.2, 4.OA.3

INVESTIGATION 2
Multiplication Combinations

Day	Session	Common Core Adaptation	Common Core Standards
7	**2.1** Quick Images		MP7 4.OA.4
8	**2.2** Multiplication Cards		MP7 4.OA.4
9	**2.3** Multiple Turn Over **ACTIVITY** **③ Playing** *Multiple Turn Over*	**Teaching Note** **Prime and Composite Numbers in** *Multiple Turn Over* When playing this game, students should identify and use prime and composite numbers. When observing students as they play, point to one of the dealt multiple cards and ask students whether the given number is prime or composite and how they know. Also ask if they can use this information as a strategy for playing the game. Students play *Multiple Turn Over* in Sessions 2.3, 2.4, and 2.5.	MP2, MP7 4.OA.4
10	**2.4** Multiplication Combinations	See the Teaching Note in Session 2.3.	MP2, MP7 4.OA.4
11	**2.5** Assessment: Multiplication Combinations	See the Teaching Note in Session 2.3.	MP2, MP7 4.OA.4

INVESTIGATION 3
Finding Factors

Day	Session	Common Core Adaptation	Common Core Standards
12	**3.1** Factors of 100 **SESSION FOLLOW-UP** **⑤ Daily Practice and Homework**	**Daily Practice:** In addition to *Student Activity Book* page 30, students complete *Student Activity Book* page 32 or C4 (Solving Multiplicative Comparison Problems) for reinforcement of the content of this unit.	MP1, MP2, MP7 4.OA.4
13	**3.2** Factors of the Multiples of 100		MP1, MP2, MP7 4.OA.1–4.OA.4
14	**3.3** Factors of Related Numbers		MP1, MP2, MP3, MP7 4.OA.1, 4.OA.2, 4.OA.4
15	**3.4** End-of-Unit Assessment		MP1, MP2, MP7 4.OA.4