Correlation to the
Common Core State Standards

The activities in *Dice Activities for Mathematical Thinking* address the following Common Core State Standards for Mathematics.

Grade 3

Operations and Algebraic Thinking (3.OA)

Multiply and divide within 100.	*Activities (page number)*
7. Fluently multiply and divide within 100, using ... properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.	pp. 3–5, 8–10, 17–19, 22–24, 27–29, 32–33, 39–41, 44–45, 51–53, 56–57, 64–69, 76–77
Solve problems involving the four operations, and identify and explain patterns in arithmetic.	
9. Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations.	pp. 10–12, 22–24, 33–35, 45–47, 57–59, 76–81

Grade 4

Operations and Algebraic Thinking (4.OA)

Gain familiarity with factors and multiples.	*Activities (page number)*
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 prime or composite.	pp. 8–9, 32, 44, 56, 74–75

Number and Operations in Base Ten (4.NBT)

Generalize place value understanding for multi-digit whole numbers.	*Activities (page number)*
2. Compare two multi-digit numbers based on meanings of the digits in each place.	pp. 5, 19, 29, 41, 53, 68–69

Grade 6

The Number System (6.NS)

Apply and extend previous understandings of numbers to the system of rational numbers.	*Activities (page number)*
5. Understand that positive and negative numbers are used together to describe quantities having opposite directions or values.	pp. 13, 36, 48, 60, 82–83, 87–91

Expressions and Equations (6.EE)

Apply and extend previous understandings of arithmetic to algebraic expressions.	*Activities (page number)*
1. Write and evaluate numerical expressions involving whole-number exponents.	pp. 3–4, 17–18

Reason about and solve one-variable equations and inequalities.	*Activities (page number)*
5. Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true?	100–103, 107–119

Grade 7

The Number System (7.NS)

Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.	*Activities (page number)*
1. Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers.	pp. 13, 36, 48, 60, 82–83, 87–91

Grade 8

Expressions and Equations (8.EE)

Work with radicals and integer exponents.	*Activities (page number)*
2. Use square root and cube root symbols … Evaluate square roots of small perfect squares and cube roots of small perfect cubes.	pp. 6–7, 20–21, 30–31, 42–43, 54–55, 70–73