Iowa Essential Elements for Mathematics

Fourth Grade

Operations and Algebraic Thinking 4.OA

A. Major Cluster: Use the four operations with whole numbers to solve problems. 4.OA.A

1 Demonstrate the connection between repeated addition and multiplication. EE.4.OA.1-2

2 Demonstrate the connection between repeated addition and multiplication. EE.4.OA.1-2

3 Solve one-step real-world problems using addition or subtraction within 100. EE.4.OA.3

B. Supporting Cluster: Gain familiarity with factors and multiples. 4.OA.B

4 Show one way to arrive at a product. EE.4.OA.4

C. Additional Cluster: Analyze a number sequence that follows a given rule. 4.OA.C

5 Use repeating patterns to make predictions. EE.4.OA.5

Numbers and Operations in Base Ten 4.NBT

A. Major Cluster: Generalize place value understanding for multi-digit whole numbers up to 1,000,000. 4.NBT.A

1 See EE.5.NBT.1

2 Compare whole numbers to 10 using symbols (<, >, =). EE.4.NBT.2

3 Round any whole number 0-30 to the nearest ten. EE.4.NBT.3

B. Major Cluster: Calculate with multi-digit numbers. 4.NBT.B

4 Add and subtract two-digit whole numbers. EE.4.NBT.4

5 See EE.4.OA.1

Numbers and Operations–Fractions 4.NF

A. Major Cluster: Extend understanding of fraction equivalence and ordering. 4.NF.A

1 Identify models of one half (1/2) and one fourth (1/4). EE.4.NF.1–2

2 Identify models of one half (1/2) and one fourth (1/4). EE.4.NF.1–2

B. Major Cluster: Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers. 4.NF.B

3 Differentiate between whole and half. EE.4.NF.3

4 See EE.4.OA.1–2 and EE.5.NBT.5

C. Major Cluster: Understand decimal notation for fractions for tenths and hundredths. 4.NF.C

5 See EE.7.NS.2.c-d

6 See EE.7.NS.2.c-d

7 See EE.7.NS.2.c-d

Measurement and Data 4.MD

A. Supporting Cluster: Solve problems involving conversion of measurements from a larger unit to a smaller unit. 4.MD.A

1 Identify the smaller measurement unit that comprises a larger unit within a measurement system (inches/foot, centimeter/meter, minutes/hour). EE.4.MD.1

2.a Tell time using a digital clock. Tell time to the nearest hour using an analog clock. EE.4.MD.2.A

2.b Measure mass or volume using standard tools. EE.4.MD.2.B

2.c Use standard measurement to compare lengths of objects. EE.4.MD.2.C

2.d Identify coins (penny, nickel, dime, quarter) and their values. EE.4.MD.2.D

3 Determine the area of a square or rectangle by counting units of measure (unit squares). EE.4.MD.3

B. Supporting Cluster: Represent and interpret data using a line plot. 4.MD.B

4.a Represent data on a picture or bar graph given a model and a graph to complete. EE.4.MD.4.A

4.b Interpret data from a picture or bar graph. EE.4.MD.4.B

C. Additional Cluster: Geometric measurement: understand the concept of angle and measure angles. 4.MD.C

5 Recognize angles in geometric shapes. EE.4.MD.5

6 Identify angles as larger and smaller. EE.4.MD.6

7 See EE.4.G.2.a

Geometry 4.G

A. Additional Cluster: Draw and identify lines and angles, and classify shapes by properties of their lines and angles. 4.G.A

1 Recognize parallel lines and intersecting lines. EE.4.G.1

2 Describe the defining attributes of twodimensional shapes. EE.4.G.2

3 Recognize that lines of symmetry partition shapes into equal areas. EE.4.G.3