

**Michigan Center School District
Math Department Curriculum**

Updated November 19, 2014

Power Standard-

- Most important skills defined within a grade level/course
- Expect Proficiency (according to grade level range or 75%)

Grade Level/Course First Grade

Sequence of Units

- **Unit 1** Building Number Patterns and Meaning
- **Standards**
 1. 1.OA Represent and solve problems involving addition & subtraction.
 2. 1.OA Understand & apply properties of operations and the relationship between addition & subtraction
 3. 1.OA Work with addition and subtraction equations
 4. 1.NBT Extend the counting sequence

- **Vocabulary/Key Concepts**
 5. Commutative property
 6. compare
 7. compose/decompose
 8. equations
 9. equivalence
 10. inverse relationship between addition & subtraction
 11. number models
 12. number relationships
 13. part-part-whole
 14. strategies
 15. subitizing
 16. sums of ten
 17. unknown

- **Essential/Focus Questions**
 1. What does counting help you understand about numbers?
 2. What are strategies to help you count quickly?
 3. When you look at 2 numbers, how can you tell which number is bigger? How can you tell which number is smaller?
 4. How could you explain to a friend what you know about the number 10?
 5. What patterns do you see when you list all the addition pairs of ten?
 6. How can we show that addition and subtraction are related?

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Unit 2 Building Number Sense

• **Standards**

1. 1.OA. Represent and solve problems involving addition and subtraction.
2. 1.OA. Understand and apply properties of operations and the relationship between addition and subtraction.
3. 1.OA Add and subtract within 20.
4. 1.OA Work with addition and subtraction equations.
5. 1.NBT Extend the counting sequence.
6. 1.NBT Understand place value.
7. 1.NBT Use place value understanding and properties of operations to add and subtract

• **Vocabulary/Key Concepts**

1. addition
2. commutative property
3. compose/decompose numbers
4. equation
5. equivalence
6. inverse operations (addition and subtraction)
7. number pattern
8. place value
9. subtraction
10. unknown

• **Essential/Focus Questions**

1. If two people get different answers to a problem, how can you tell which answer is correct?
2. How can it help you to be able to solve a problem in more than one way?
3. How does it help you to explain your thinking to others?
4. What strategies help you add and subtract numbers? How do you use these strategies?
5. What does it mean that addition and subtraction are inverse operations?

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Unit 3 Measurement (Length and Time)

• **Standards**

1. 1.MD Measure lengths indirectly and by iterating length units.
2. 1.MD Tell and write time.

• **Vocabulary/Key Concepts**

1. afternoon
2. analog clock
3. digital clock
4. half-hour
5. hour
6. measurement tools
7. minute
8. morning
9. night
10. nonstandard unit
11. standard unit
12. unit

• **Essential/Focus Questions**

1. How do we measure the length of an object?
2. Why are measurement tools used in finding length?
3. How do we use a clock to measure time?
4. What is the relationship between minutes and hours?
5. What do we need to be thinking about to measure something accurately?
6. How does the knowledge of measuring length and time support problem solving in the real world.

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Unit 4 Organizing and Representing Data

- **Standards**

1. 1.OA Represent and solve problems involving addition and subtraction.
2. 1.OA Add and subtract within 20.
3. 1.MD Represent and interpret data.

- **Vocabulary/Key Concepts**

1. attribute
2. category
3. classify
4. collect
5. columns
6. compare
7. data
8. data representation
9. different
10. draw conclusions
11. fewer, fewest
12. interpret
13. investigate
14. least
15. less than, least
16. more than
17. most
18. organize
19. question
20. represent
21. rows
22. same
23. sort
24. survey

- **Essential/Focus Questions**

1. Where do questions for collecting data come from?
2. How do graphs and charts help us answer questions?
3. How can I collect and organize data I collect?
4. How can I display data I get from a data collection?
5. Why might it be useful to represent the data I collect in another way (e.g., a tally chart)?
6. What questions can I ask and answer about the data displayed in my chart or graph? How might this be represented as an equation?
7. What are the strengths and weaknesses of the different ways of representing data?

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- **Unit 5** Basic Facts and Place Value

- **Standards**

1. 1.OA Represent and solve problems involving addition and subtraction
2. 1.OA Understand and apply properties of operations and the relationship between addition and subtraction.
3. 1.OA. Work with addition and subtraction equations.
4. 1.OA. Add and subtract within 20.
5. 1.NBT Understand place value.
6. 1.NBT. Use place value understanding and properties of operations to add and subtract.

- **Vocabulary/Key Concepts**

1. addend
2. Associative Property
3. basic facts
4. Commutative Property
5. compare (greater than, less than, equal to)
6. compose
7. decompose
8. difference
9. equivalence
10. fact families
11. part-part-whole
12. place value
13. strategy
14. sum
15. unit (ones, tens)
16. zero

- **Essential/Focus Questions**

1. What strategies can help us solve addition and subtraction facts quickly and accurately?
2. What is important to pay attention to when converting an addition or subtraction problem so that it is easier for you to solve?
3. What does the equal sign mean?
4. How does the value of a digit change when its position in a number changes?
5. What does "0" represent in a number?
6. What strategies help you compare two numbers?

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Unit 6 Geometric Shapes, Patterns & Attributes

- **Standards**

1. 1.G.A. Reason with shapes and their attributes.

- **Vocabulary/Key Concepts**

- 2-dimensional shapes
- 3-dimensional shapes
- angle
- base
- closed figure
- composite shape
- corner
- defining attributes
- face
- fourths
- halves
- non-defining attributes
- polygon
- quarters
- shape
- side
- vertex
- whole

- **Essential/Focus Questions**

1. What are the attributes of various closed shapes?
2. What are the attributes of various three-dimensional shapes?
3. What shapes can you make by composing or decomposing squares, triangles, rectangles, trapezoids, hexagons and circles?
4. How are 2-dimensional and 3-dimensional shapes alike and how are they different?
5. How can you share a sandwich (with square bread) with a friend so that you will both have the same amount?

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Unit 7 Using Equivalence and Place Value

- **Standards**

1. 1.OA. Understand and apply properties of operations and the relationship between addition and subtraction.
2. 1.OA. Add and subtract within 20.
3. 1.OA. Work with addition and subtraction equations.
4. 1.NBT. Understand place value.
5. 1.NBT. Use place value understanding and properties of operations to add and subtract.

- **Vocabulary/Key Concepts**

Associative property
benchmark number (10 or a multiple of 10)
Commutative property
composing
decomposing
equivalence
inverse operations
modeling
ones
place value
strategy
tens

- **Essential/Focus Questions**

1. In what ways can numbers be decomposed and composed? How is decomposing/composing helpful when solving problems?
2. How is knowledge of place value important to solving problems?
3. How can exploring one another's strategies help us understand and solve problems?
4. What can you learn from solving problems in more than one way?
5. How can we use strategies (e.g., make-a-ten) to make problems easier to solve in our heads?
6. What are benchmark numbers and why are they important?

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Signature of Current Grade Level/Course Representative



Signature of Prior Grade Level/Course Representative



Signature of Next Grade Level/Course Representative