

# Township of Ocean Schools

Assistant Superintendent  
Office of Teaching and Learning

## **SPARTAN MISSION:**

*Meeting the needs of all students with a proud tradition of academic excellence.*

---

### **Curriculum Development Timeline**

**School:** Township of Ocean Elementary Schools

**Course:** Mathematics, Grade 2

**Department:** Mathematics

| Board Approval | Supervisor        | Notes     |
|----------------|-------------------|-----------|
| August 2006    | Justine Salvo     | Born Date |
| November 2011  | Christine Picerno | Revisions |
| December 2017  | Christine Picerno | Revisions |
| March 2019     | Christine Picerno | Review    |

*Home of the Spartans!*  
*#spartanlegacy*





# Township of Ocean Schools

Assistant Superintendent  
Office of Teaching and Learning

## **SPARTAN MISSION:**

*Meeting the needs of all students with a proud tradition of academic excellence.*

| Marking Period 1 |                                 | Marking Period 2 |                                 |
|------------------|---------------------------------|------------------|---------------------------------|
| 1                | Operations & Algebraic Thinking | 11               | Number & Operations in Base Ten |
| 2                | Operations & Algebraic Thinking | 12               | Number & Operations in Base Ten |
| 3                | Operations & Algebraic Thinking | 13               | Number & Operations in Base Ten |
| 4                | Operations & Algebraic Thinking | 14               | Number & Operations in Base Ten |
| 5                | Operations & Algebraic Thinking | 15               | Number & Operations in Base Ten |
| 6                | Operations & Algebraic Thinking | 16               | Number & Operations in Base Ten |
| 7                | Operations & Algebraic Thinking | 17               | Number & Operations in Base Ten |
| 8                | Number & Operations in Base Ten | 18               | Number & Operations in Base Ten |
| 9                | Number & Operations in Base Ten | 19               | Number & Operations in Base Ten |
| 10               | Number & Operations in Base Ten | 20               | Number & Operations in Base Ten |
| Marking Period 3 |                                 | Marking Period 4 |                                 |
| 21               | Measurement & Data              | 31               | Number & Operations in Base Ten |
| 22               | Measurement & Data              | 32               | Number & Operations in Base Ten |
| 23               | Measurement & Data              | 33               | Measurement & Data              |
| 24               | Number & Operations in Base Ten | 34               | Measurement & Data              |
| 25               | Number & Operations in Base Ten | 35               | Measurement & Data              |
| 26               | Number & Operations in Base Ten | 36               | Geometry                        |
| 27               | Number & Operations in Base Ten | 37               | Geometry                        |
| 28               | Number & Operations in Base Ten | 38               | Geometry                        |
| 29               | Number & Operations in Base Ten | 39               | Geometry                        |
| 30               | Number & Operations in Base Ten | 40               | Geometry                        |

*Home of the Spartans!*  
*#spartanlegacy*



# Township of Ocean Schools

Assistant Superintendent  
Office of Teaching and Learning

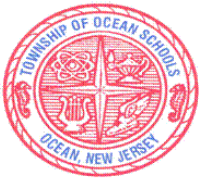
## **SPARTAN MISSION:**

*Meeting the needs of all students with a proud tradition of academic excellence.*

| Time Frame                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | September Ongoing through June |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| <b>Topic</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                |
| Operations & Algebraic Thinking                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                |
| <b>Essential Questions</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                |
| <ul style="list-style-type: none"> <li>• What do the best problem solvers do?</li> <li>• What does it mean to reason mathematically?</li> <li>• How do I know when an answer is reasonable?</li> <li>• What makes a mathematical argument convincing?</li> <li>• How do patterns help us solve problems?</li> <li>• Why is the ability to solve problems the heart of mathematics?</li> <li>• When would an estimate be more useful than an exact answer?</li> <li>• What similar problems does this remind me of?</li> <li>• Why do I need mathematical operations?</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                 |                                |
| <b>Enduring Understandings</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                |
| <p>Students will understand that...</p> <ul style="list-style-type: none"> <li>• Computation involves taking apart and combining numbers using a variety of approaches.</li> <li>• Flexible methods of computation involve grouping numbers in strategic ways.</li> <li>• Different math approaches can yield the same results.</li> <li>• Developing number sense helps to solve problems in a variety of ways.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                |
| <b>Alignment to NJSLs</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                |
| <p><b>2.OA.A.1</b> Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.</p> <p><b>2.OA.B.2</b> Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.</p> <p><b>2.OA.C.3</b> Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.</p> <p><b>2.OA.C.4</b> Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.</p> |                                |
| <b>Key Concepts and Skills</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                |
| <ul style="list-style-type: none"> <li>• Review the relationship between addition and subtraction equations, Math Mountains, and word problems.</li> <li>• Find teen Math Mountains and relate to addition problems with two unknown addends; practice addition and subtraction with totals less than or equal to 1.</li> <li>• Use the Make-a-Ten strategy to add single-digit addends that have a teen total.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                |

*Home of the Spartans!*

*#spartanlegacy*



# Township of Ocean Schools

Assistant Superintendent  
Office of Teaching and Learning

## **SPARTAN MISSION:**

*Meeting the needs of all students with a proud tradition of academic excellence.*

- Make a ten to solve unknown addend and subtraction word problems.
- More Practice with Unknown Addends and Teen Totals.
- Identify numbers as odd or even.
- Find totals using the Doubles Plus/Minus 1 or the Doubles Plus/Minus 2 strategies.
- Write equations and equation chains and use vertical for for addition and subtraction.
- Add three or four 1-digit addends using strategies based on properties of addition.
- Represent and solve Add To and Take From word problems.
- Create and solve Add To and Take From word problems with unknowns in all positions.
- Introduce and solve Put Together/Take Apart problems.
- Solve Put Together/Take Apart problems that involve the use of group names and/or have both addends unknown.
- Represent, create, paraphrase, and solve simple and more complex Compare word problems.
- Solve mixed word problems and use the Make-a-Ten strategy to find totals.
- Discuss and solve problems with not enough, extra, or hidden information.
- Solve both two-step and mixed word problems.
- Use the NJSLs and Math Practices in a variety of real world problem solving situations.

## **Learning Activities**

In this unit, children work toward building fluency with addition and subtraction within 20 and mastering all addition and subtraction word problem subtypes. Children will also learn about arrays. Visual models and real world situations are used throughout the unit to help children understand the meaning of addition and subtraction.

### **enVision Math 2.0 Units of Study**

**Topic 1 - Fluently Add and Subtract Within 20**

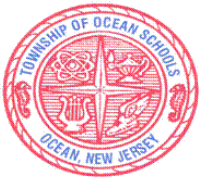
**Topic 2 - Work with Equal Groups**

**Topic 3 - Add Within 100 Using Strategies**

**Topic 4 - Fluently Add Within 100**

*Home of the Spartans!*

*#spartanlegacy*



# Township of Ocean Schools

Assistant Superintendent  
Office of Teaching and Learning

## **SPARTAN MISSION:**

*Meeting the needs of all students with a proud tradition of academic excellence.*

### **Curriculum Resources**

#### **Math Literature:**

- Rumble Bus by Larry Dane Brimmer
- Even Steven and Odd Todd by Kathryn Cristaldi

#### **enVision Math 2.0 Resources:**

- Realize Online Platform
- Math Center Challenges
- MDIS - Math Diagnostic and Intervention System
- Student Editions
- Response to Intervention Tiered Materials

### **Assessments**

#### **Formative Assessments**

- Teacher Observation
- Exit Slips/Check for Understanding
- Games
- Anecdotal Records
- Oral Assessments/Conferencing
- Daily Classwork
- Pre-Assessment
- Homework pages
- Fluency Check
- Quick Quiz
- Student Activity Pages

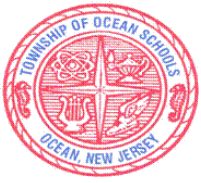
#### **Summative Assessments**

- Quick Quiz
- Performance Task
- Unit Test

#### **Alternative Assessment**

- Habitat creation – defining groups of animals that would live there and discuss place values – number of animals
- Comparing different habitats and how they relate to areas of the world and where they are found. Making a graph to discuss findings.

*Home of the Spartans!*  
*#spartanlegacy*



# Township of Ocean Schools

Assistant Superintendent  
Office of Teaching and Learning

## **SPARTAN MISSION:**

*Meeting the needs of all students with a proud tradition of academic excellence.*

### **21<sup>st</sup>-Century Skills**

**9.2.4.A.4** Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.

### **Career Ready Practices**

**CRP 4.** SW communicate clearly and effectively and with reason during the Solve and Share portion of the lesson.

**CRP 8.** SW utilize critical thinking to make sense of problems and persevere in solving independent practice problems.

**CRP 11.** SW use technology to enhance productivity by accessing the Pearson Platform.

### **Interdisciplinary Connections**

#### **Language Arts Learning Activities:**

- Build a strong base of knowledge through content-rich texts
- Read, write, and speak grounded in evidence
- Construct viable arguments and critique the reasoning of others
- Engage in argument from evidence

#### **Alignment to Standards:**

- **RL.2.1.** Ask and answer such questions as *who*, *what*, *where*, *when*, *why*, and *how* to demonstrate understanding of key details in a text.
- **RL.2.7.** Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot.
- **RI.2.6.** Identify the main purpose of a text, including what the author wants to answer, explain, or describe.
- **RI.2.7.** Explain how specific illustrations and images (e.g., a diagram showing how a machine works) contribute to and clarify a text.
- **RF.2.4.** Read with sufficient accuracy and fluency to support comprehension.

#### **Science Learning Activities:**

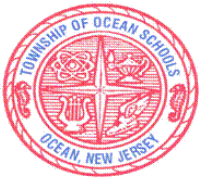
- Model with mathematics
- Develop and use models
- Use mathematics, information and computer technology, and computational thinking

#### **Alignment to Standards:**

- **2-LS4-1.** Make observations of plants and animals to compare the diversity of life in different habitats
- **2-LS2-2.** Develop a simple model that mimics the function of an animal in dispersing seeds

*Home of the Spartans!*

*#spartanlegacy*



# Township of Ocean Schools

Assistant Superintendent  
Office of Teaching and Learning

## **SPARTAN MISSION:**

*Meeting the needs of all students with a proud tradition of academic excellence.*

or pollinating plants.

### **Technology Integration**

#### **Technology Learning Activities:**

- Students use Chromebooks to access Pearson Realize platform to practice and reinforce skills and concepts.
- Students will use Google Classroom to center assignments and group work.
- Students will access various websites, such as, Prodigy, Arcademics, Cool Math and IXL to practice and reinforce math skills.

#### **Alignment to Standards:**

- **TECH.8.1.2** All students will use digital tools to access, manage, evaluate and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge.
- **TECH.8.1.2.A.CS2** Select and use applications effectively and productively
- **TECH.8.2.2.C** The design process is a systematic approach to solving problems

| Time Frame                                                                                                                                                                                                                                                                                                                                                              | September Ongoing through June |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Topic                                                                                                                                                                                                                                                                                                                                                                   |                                |
| Numbers and Operations in Base Ten                                                                                                                                                                                                                                                                                                                                      |                                |
| Essential Questions                                                                                                                                                                                                                                                                                                                                                     |                                |
| <ul style="list-style-type: none"><li>• What is the best way to count?</li><li>• How are relationships helpful in mathematics?</li><li>• What makes a strategy for computing effective and efficient?</li><li>• How is math a language?</li><li>• What would be impossible if we had no numbers?</li><li>• Why is it useful to compose and decompose numbers?</li></ul> |                                |
| Enduring Understandings                                                                                                                                                                                                                                                                                                                                                 |                                |
| Students will understand that...                                                                                                                                                                                                                                                                                                                                        |                                |
| <ul style="list-style-type: none"><li>• Place value is based on groups of 10.</li><li>• Place value understanding is essential when reading, writing, modeling, and computing with whole numbers.</li><li>• Computation involves taking apart and combining numbers using a variety of</li></ul>                                                                        |                                |

*Home of the Spartans!*  
*#spartanlegacy*



# Township of Ocean Schools

Assistant Superintendent  
Office of Teaching and Learning

## **SPARTAN MISSION:**

*Meeting the needs of all students with a proud tradition of academic excellence.*

approaches.

- Flexible methods of computation involve grouping numbers in strategic ways.
- Developing number sense helps to solve problems in a variety of ways.
- Different math approaches can yield the same results.

## **Alignment to NJSLs**

**2.NBT.A.1** Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. 1a 100 can be thought of as a bundle of ten tens — called a “hundred.” 1b The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).

**2.NBT.A.2** Count within 1000; skip-count by 5s, 10s, and 100s.

**2.NBT.A.3** Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.

**2.NBT.A.4** Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using  $>$ ,  $=$ , and  $<$  symbols to record the results of comparisons.

**2.NBT.B.5** Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.

**2.NBT.B.6** Add up to four two-digit numbers using strategies based on place value and properties of operations.

**2.NBT.B.7** Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.

**2.NBT.B.8** Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.

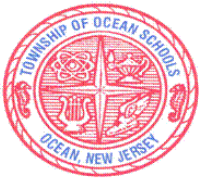
**2.NBT.B.9** Explain why addition and subtraction strategies work, using place value and the properties of operations.

## **Key Concepts and Skills**

- Represent numbers to 200 and identify patterns involving place value.
- Represent numbers using base-ten numerals, expanded form, and number names.
- Solve ten-based word problems and add 10 or 100 to a given number.
- Compare two numbers using  $<$ ,  $>$ , or  $=$  symbols.
- Explore methods of 2-digit addition that involves making a new ten or hundred.
- Apply addition concepts and strategies to real world situations, and solve 2-digit addition problems.
- Solve 2-digit addition exercises using the New Groups Below method.
- Compare various solution methods for 2-digit addition.
- Build fluency with addition within 100.
- Add three or four 2-digit addends.
- Count to 1,000 and represent 3-digit numbers.

*Home of the Spartans!*

*#spartanlegacy*



# Township of Ocean Schools

Assistant Superintendent  
Office of Teaching and Learning

## **SPARTAN MISSION:**

*Meeting the needs of all students with a proud tradition of academic excellence.*

- Understand the value of the digits in a 3-digit number and write 3-digit numbers in expanded form.
- Compare numbers within 999. Count by ones and tens, add and subtract 10 from a number, and read and write number names for 3-digit numbers.
- Use addition exercises to show place value, and apply knowledge of place value to word problems.
- Explain the methods used to solve addition problems, and discuss good explanations and good questions.
- Add within 1,000 using drawings and strategies based on place value.
- Use the Adding Up Method to solve unknown addend problems containing 3-digit numbers.
- Subtract 3-digit numbers from hundreds numbers through 1,000.
- Subtract from 3-digit numbers with a zero in the ones or tens place.
- Subtract from any 3-digit number, with or without ungrouping.
- Practice addition and subtraction with 3-digit numbers and use the relationship between addition and subtraction to check answers.
- Use addition and subtraction within 1,000 to solve word problems.
- Use the NJSLs and Math Practices in a variety of real world problem solving situations.

## **Learning Activities**

In this unit, children work with place value, representing numbers in different ways, and comparing numbers. They add two, three, or four 2-digit numbers, sometimes resulting in new tens or new hundreds, with sums to 200. Additionally in this unit, children work toward building fluency with addition and subtraction within 1,000 and mastering all addition and subtraction word problem subtypes. Visual models and real world situations are used throughout the unit to help children understand the value of 2- and 3-digit numbers and how to find the sum of 2-digit numbers.

### **9nvision Math 2.0 Units of Study**

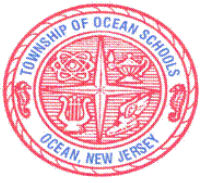
**Topic 5 – Subtract Within 100 Using Strategies**

**Topic 6 - Fluently Subtract Within 100**

**Topic 7 - More Solving Problem Involving Addition and Subtraction**

**Topic 8 - Work with Time and Money**

*Home of the Spartans!*  
*#spartanlegacy*



# Township of Ocean Schools

Assistant Superintendent  
Office of Teaching and Learning

## **SPARTAN MISSION:**

*Meeting the needs of all students with a proud tradition of academic excellence.*

### **Curriculum Resources**

#### **Math Literature:**

- Count on Pablo by Barbara deRubertis
- More or Less by Stuart J. Murphy
- Henry Hikes to Fitchburg by D. B. Johnson
- Tightwad Tod by Daphne Skinner and John Nez
- 100<sup>th</sup> Day Worries by Margery Cuyler and Arthur Howard
- Shark Swimathon by Stuart J. Murphy
- Hannah's Collections by Marthe Jocelyn
- A Place for Zero by Angeline Sparagna LoPresti
- Earth Day – Hooray! By Stuart J. Murphy

#### **10nvision Math 2.0 Resources:**

- Realize Online Platform
- Math Center Challenges
- MDIS – Math Diagnostic and Intervention System
- Student Editions
- Response to Intervention Tiered Materials

### **Assessments**

#### **Formative Assessments**

- Teacher Observation
- Exit Slips/Check for Understanding
- Games
- Anecdotal Records
- Oral Assessments/Conferencing
- Daily Classwork
- Pre-Assessment
- Homework pages
- Fluency Check
- Quick Quiz
- Student Activity Pages

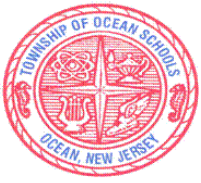
#### **Summative Assessments**

- Quick Quiz
- Performance Task
- Unit Test

#### **Alternative Assessments**

- 100<sup>th</sup> day poster creation (grouping objects)

*Home of the Spartans!*  
*#spartanlegacy*



# Township of Ocean Schools

Assistant Superintendent  
Office of Teaching and Learning

## **SPARTAN MISSION:**

*Meeting the needs of all students with a proud tradition of academic excellence.*

- Develop a model of objects students would enjoy collecting.

### **21st-Century Skills**

#### **Career Ready Practices**

**CRP 4.** SW communicate clearly and effectively and with reason during the Solve and Share portion of the lesson.

**CRP 8.** SW utilize critical thinking to make sense of problems and persevere in solving independent practice problems.

**CRP 11.** SW use technology to enhance productivity by accessing the Pearson Platform.

#### **Interdisciplinary Connections**

##### **Language Arts Learning Activities:**

- Build a strong base of knowledge through content-rich texts
- Read, write, and speak grounded in evidence
- Construct viable arguments and critique the reasoning of others
- Engage in argument from evidence

##### **Alignment to Standards:**

- **RI.2.6.** Identify the main purpose of a text, including what the author wants to answer, explain, or describe.
- **RL.2.1.** Ask and answer such questions as *who*, *what*, *where*, *when*, *why*, and *how* to demonstrate understanding of key details in a text.
- **RL.2.7.** Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot.
- **RI.2.7.** Explain how specific illustrations and images (e.g., a diagram showing how a machine works) contribute to and clarify a text.
- **RF.2.4.** Read with sufficient accuracy and fluency to support comprehension.

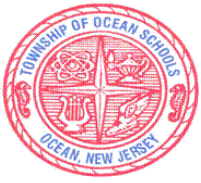
##### **Science Learning Activities:**

- Model with mathematics
- Develop and use models
- Use mathematics, information and computer technology, and computational thinking

##### **Alignment to Standards:**

- **2-PS1-3.** Make observations to construct an evidence-based account of how an object made of a small set of pieces can be disassembled and made into a new object.
- **2-PS1-3.** Make observations to construct an evidence-based account of how an object made of a small set of pieces can be disassembled and made into a new object.

*Home of the Spartans!*  
*#spartanlegacy*



# Township of Ocean Schools

Assistant Superintendent  
Office of Teaching and Learning

## **SPARTAN MISSION:**

*Meeting the needs of all students with a proud tradition of academic excellence.*

### **Technology Integration**

#### **Technology Learning Activities:**

- Students use Chromebooks to access Pearson Realize platform to complete their independent practice problems online.
- Students will use Google Classroom to access links to: interactive activities and math games.
- Students will access various websites, such as, Prodigy, Arcademics, Cool Math and IXL to practice and reinforce math skills during center related activities.

#### **Alignment to Standards:**

- **TECH.8.1.2** All students will use digital tools to access, manage, evaluate and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge.
- **TECH.8.1.2.A.CS2** Select and use applications effectively and productively
- **TECH.8.2.2.C** The design process is a systematic approach to solving problems

| Time Frame                                                                                                                                                                                                                                                                                                                                                                                                          | November through June |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| Topic                                                                                                                                                                                                                                                                                                                                                                                                               |                       |
| Measurement and Data                                                                                                                                                                                                                                                                                                                                                                                                |                       |
| Essential Questions                                                                                                                                                                                                                                                                                                                                                                                                 |                       |
| <ul style="list-style-type: none"><li>• What is the connection between the type of data and the type of display?</li><li>• How does "what" is measured influence "how" it is measured?</li><li>• How can we compare the size of objects when we can't put them next to each other?</li><li>• How can we be sure something is really bigger and agree on its size?</li></ul>                                         |                       |
| Enduring Understandings                                                                                                                                                                                                                                                                                                                                                                                             |                       |
| <p>Students will understand that...</p> <ul style="list-style-type: none"><li>• Data displays convey information in a concise way.</li><li>• Objects have distinct attributes that can be measured.</li><li>• Standard units provide common language for communication of measurements.</li><li>• The choice of measurement tool depends on the measurable attribute and the degree of precision desired.</li></ul> |                       |

*Home of the Spartans!*  
*#spartanlegacy*



# Township of Ocean Schools

Assistant Superintendent  
Office of Teaching and Learning

## **SPARTAN MISSION:**

*Meeting the needs of all students with a proud tradition of academic excellence.*

### **Alignment to NJSLs**

- 2.MD.A.1** Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.
- 2.MD.A.2** Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.
- 2.MD.A.3** Estimate lengths using units of inches, feet, centimeters, and meters.
- 2.MD.A.4** Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.
- 2.MD.B.5** Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.
- 2.MD.B.6** Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2,..., and represent whole-number sums and differences within 100 on a number line diagram.
- 2.MD.C.7** Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.
- 2.MD.C.8** Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately.
- 2.MD.D.9** Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.
- 2.MD.D.10** Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.

### **Key Concepts and Skills**

- Measure line segments. Break apart centimeter lengths into partner lengths.
- Estimate and measure the sides and the distances around squares and rectangles.
- Draw and name shapes with 3, 4, 5, or 6 angles and estimate and measure sides of triangles.
- Understand how 2-dimensional and 3-dimensional shapes are related, and draw rectangular prisms and cubes using faces.
- Estimate and measure with centimeters and use a line plot to display measurement data.
- Estimate and measure with inches, feet, and yards.
- Add three and four lengths to solve word problems.
- Show measurement data on a line plot.
- Determine the relationship between length and the size of the measurement unit.
- Solve word problems involving dollar bills, dimes, and pennies using \$ and the cents symbol.
- Skip count by 5s and find the values of collections of dimes, nickels, and pennies.
- Tell and write time to the hour, including A.M and P.M.
- Tell time to 5 minutes.

*Home of the Spartans!*

*#spartanlegacy*



# Township of Ocean Schools

Assistant Superintendent  
Office of Teaching and Learning

## **SPARTAN MISSION:**

*Meeting the needs of all students with a proud tradition of academic excellence.*

- Gather, organize, and display data.
- Draw picture and bar graphs and solve problems using information from the graphs.
- Read and analyze information in horizontal and vertical bar graphs.
- Interpret data in graphs and use the data for problem solving.
- Use the NJSLs and Math Practices

## **Learning Activities**

In this unit, children learn to measure and estimate lengths, relate addition and subtraction to length, and to represent lengths on line plots. Also in this unit, children work toward building fluency with money. Children will read and show time to the 5 minutes, display data in bar graphs and picture graphs, and interpret the data in graphs to solve problems. Visual models and real world situations are used throughout the unit to help children understand length measurements, concepts of time and graphing.

### **enVision Math 2.0 Units of Study**

**Topic 9 - Numbers to 1,000**

**Topic 10 - Add Within 1,000 Using Models and Strategies**

**Topic 11 - Subtract Within 1,000 Using Models and Strategies**

**Topic 12 - Measuring Length**

## **Curriculum Resources**

### **Math Literature:**

- Racing Around by Stuart J. Murphy and Mike Reed
- How Do You Know What Time It Is? by Robert E. Wells
- Keep Your Distance! by Gail Herman

### **enVision Math 2.0 Resources:**

- Realize Online Platform
- Math Center Challenges
- MDIS - Math Diagnostic and Intervention System
- Student Editions
- Response to Intervention Tiered Materials

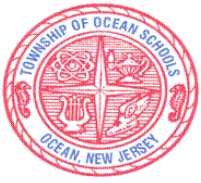
## **Assessments**

### **Formative Assessments**

- Teacher Observation
- Exit Slips/Check for Understanding
- Games
- Anecdotal Records
- Oral Assessments/Conferencing
- Daily Classwork
- Pre-Assessment

*Home of the Spartans!*

*#spartanlegacy*



# Township of Ocean Schools

Assistant Superintendent  
Office of Teaching and Learning

## **SPARTAN MISSION:**

*Meeting the needs of all students with a proud tradition of academic excellence.*

- Homework pages
- Fluency Check
- Quick Quiz
- Student Activity Pages

### **Summative Assessments**

- Quick Quiz
- Performance Task
- Unit Test

### **Alternative Assessments**

- Develop a daily routine/schedule to highlight times of the day activities are done.
- How fast do animals run – animal races – time trials.

## **21st-Century Skills**

### **Career Ready Practices**

**CRP 4.** SW communicate clearly and effectively and with reason while working on groups on the Solve and Share portion of the lesson.

**CRP 11.** SW use technology to enhance productivity by accessing the Quick Check vis the Pearson Platform.

### **Interdisciplinary Connections**

#### **Language Arts Learning Activities:**

- Build a strong base of knowledge through content-rich texts
- Read, write, and speak grounded in evidence
- Construct viable arguments and critique the reasoning of others
- Engage in argument from evidence

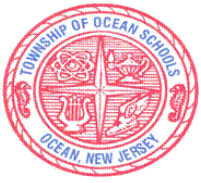
#### **Alignment to Standards:**

- RI.2.6. Identify the main purpose of a text, including what the author wants to answer, explain, or describe.
- RI.2.7. Explain how specific illustrations and images (e.g., a diagram showing how a machine works) contribute to and clarify a text.
- RF.2.4. Read with sufficient accuracy and fluency to support comprehension.

#### **Science Learning Activities:**

- Model with mathematics

*Home of the Spartans!*  
*#spartanlegacy*



# Township of Ocean Schools

Assistant Superintendent  
Office of Teaching and Learning

## **SPARTAN MISSION:**

*Meeting the needs of all students with a proud tradition of academic excellence.*

- Develop and use models
- Use mathematics, information and computer technology, and computational thinking

### **Alignment to Standards:**

- **K-2-ETS1-1.** Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.
- **K-2-ETS1-2.** Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.
- **K-2-ETS1-3.** Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.
- **2-PS1-1.** Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.

## **Technology Integration**

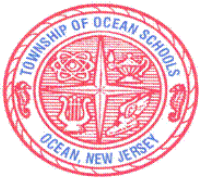
### **Technology Learning Activities:**

- Students use Chromebooks to access Pearson Realize platform to practice and reinforce skills and concepts.
- Students will use Google Classroom to access links to: interactive activities and math games.
- Students will access various websites, such as, Prodigy, Arcademics, Cool Math and IXL to practice and reinforce math skills.

### **Alignment to Standards:**

- **TECH.8.1.2** All students will use digital tools to access, manage, evaluate and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge.
- **TECH.8.1.2.A.CS2** Select and use applications effectively and productively
- **TECH.8.2.2.C** The design process is a systematic approach to solving problems

*Home of the Spartans!*  
*#spartanlegacy*



# Township of Ocean Schools

Assistant Superintendent  
Office of Teaching and Learning

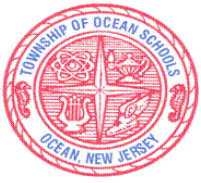
## **SPARTAN MISSION:**

*Meeting the needs of all students with a proud tradition of academic excellence.*

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| <b>Time Frame</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | December and May |
| <b>Topic</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                  |
| Geometry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                  |
| <b>Essential Questions</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                  |
| <ul style="list-style-type: none"><li>How can shapes be broken into simpler parts?</li><li>What attributes are important for naming shapes?</li><li>When is one object or shape bigger than another?</li><li>What determines big and small?</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                               |                  |
| <b>Enduring Understandings</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |
| Students will understand that...                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                  |
| <ul style="list-style-type: none"><li>Equal shares can be represented in different ways.</li><li>Shapes can be classified by their attributes.</li><li>Geometric properties can be used to construct two dimensional figures.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                             |                  |
| <b>Alignment to NJSLs</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                  |
| <p><b>2.G.A.1</b> Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.</p> <p><b>2.G.A.2</b> Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.</p> <p><b>2.G.A.3</b> Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.</p> |                  |
| <b>Key Concepts and Skills</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |
| <ul style="list-style-type: none"><li>Arrange items in rectangular arrays and partition rectangles into equal shares.</li><li>Fold and draw equal shares to show halves, thirds, and fourths.</li><li>Describe properties of squares, rectangles, triangles, pentagons, and hexagons.</li><li>Draw and name shapes with 3, 4, 5, or 6 angles and estimate and measure sides of triangles.</li><li>Understand how 2-dimensional and 3-dimensional shapes are related, and draw rectangular prisms and cubes using faces.</li><li>Use the NJSLs and Mathematical Practices in a variety of real world problem solving situations.</li></ul>                                           |                  |
| <b>Learning Activities</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                  |
| In this unit, children learn to reason with shapes and their attributes. Visual models and real world                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                  |

*Home of the Spartans!*

*#spartanlegacy*



# Township of Ocean Schools

Assistant Superintendent  
Office of Teaching and Learning

## **SPARTAN MISSION:**

*Meeting the needs of all students with a proud tradition of academic excellence.*

situations are used throughout the unit to help children understand shapes and important fraction concepts.

### **enVision Math 2.0 Units of Study**

**Topic 13 - More Addition, Subtraction, and Length**

**Topic 14 - Graphs and Data**

**Topic 15 - Shapes and Their Attributes**

**Stepping Up Lessons**

### **Curriculum Resources**

#### **Math Literature:**

- A Cloak for the Dreamer by Aileen Friedman
- Shapes, Shapes, Shapes by Tara Robin
- Three Pigs, One Wolf and Seven Magic Shapes by Grace Maccarone

#### **enVision Math 2.0 Resources:**

- Realize Online Platform
- Math Center Challenges
- MDIS - Math Diagnostic and Intervention System
- Student Editions
- Response to Intervention Tiered Materials

### **Assessments**

#### **Formative Assessments**

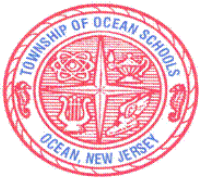
- Teacher Observation
- Exit Slips/Check for Understanding
- Games
- Anecdotal Records
- Oral Assessments/Conferencing
- Daily Classwork
- Pre-Assessment
- Homework pages
- Fluency Check
- Quick Quiz
- Student Activity Pages

#### **Summative Assessments**

- Quick Quiz
- Performance Task
- Unit Test

#### **Alternative Assessments**

*Home of the Spartans!*  
*#spartanlegacy*



# Township of Ocean Schools

Assistant Superintendent  
Office of Teaching and Learning

## **SPARTAN MISSION:**

*Meeting the needs of all students with a proud tradition of academic excellence.*

- Graph Creation – Favorite Animal – Student created questions
- Shapes to represent structures in school - Drawing

### **21st-Century Skills**

**9.2.4.A.1** Identify reasons why people work, different types of work, and how work can help a person achieve personal and professional goals.

### **Career Ready Practices**

**CRP 8.** SW utilize critical thinking to make sense of problems and persevere in solving problem solving problems.

**CRP 11.** SW use technology to enhance productivity by accessing various online skill based websites.

### **Interdisciplinary Connections**

#### **Language Arts Learning Activities:**

- Build a strong base of knowledge through content-rich texts
- Read, write, and speak grounded in evidence
- Construct viable arguments and critique the reasoning of others
- Engage in argument from evidence

#### **Alignment to Standards:**

- **RL.2.7.** Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot.
- **RI.2.7.** Explain how specific illustrations and images (e.g., a diagram showing how a machine works) contribute to and clarify a text.
- **RF.2.4.** Read with sufficient accuracy and fluency to support comprehension.

#### **Science Learning Activities:**

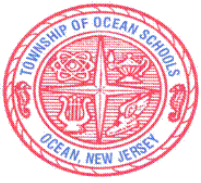
- Model with mathematics
- Develop and use models
- Use mathematics, information and computer technology, and computational thinking

#### **Alignment to Standards:**

- **2-PS1-1.** Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.
- **K-2-ETS1-1.** Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through

*Home of the Spartans!*

*#spartanlegacy*



# Township of Ocean Schools

Assistant Superintendent  
Office of Teaching and Learning

## **SPARTAN MISSION:**

*Meeting the needs of all students with a proud tradition of academic excellence.*

the development of a new or improved object or tool.

- **K-2-ETS1-2.** Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

## **Technology Integration**

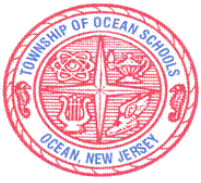
### **Technology Learning Activities:**

- Students use Chromebooks to access Pearson Realize platform to practice and reinforce skills and concepts.
- Students will use Google Classroom to access links to: interactive activities and math games.
- Students will access various websites, such as, Prodigy, Arcademics, Cool Math and IXL to practice and reinforce math skills.

### **Alignment to Standards:**

- **TECH.8.1.2** All students will use digital tools to access, manage, evaluate and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge.
- **TECH.8.1.2.A.CS2** Select and use applications effectively and productively
- **TECH.8.2.2.C** The design process is a systematic approach to solving problems

*Home of the Spartans!*  
*#spartanlegacy*



# Township of Ocean Schools

Assistant Superintendent  
Office of Teaching and Learning

## **SPARTAN MISSION:**

*Meeting the needs of all students with a proud tradition of academic excellence.*

---

### **Modifications (ELL, Special Education, At-Risk Students, Gifted and Talented, and 504 Plans)**

#### **ELL:**

- Work toward longer passages as skills in English increase
- Use visuals
- Introduce key vocabulary before lesson
- Teacher models reading aloud daily
- Provide peer tutoring
- Use of Bilingual Dictionary
- Guided notes and/or scaffold outline for written assignments
- Provide students with English Learner leveled readers.

#### **Supports for Students With IEPs:**

- Allow extra time to complete assignments or tests
- Guided notes and/or scaffold outline for written assignments
- Work in a small group
- Allow answers to be given orally or dictated
- Use large print books, Braille, or books on CD (digital text)
- Follow all IEP modifications

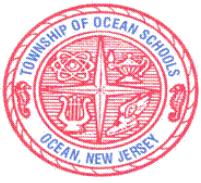
#### **At-Risk Students:**

- Guided notes and/or scaffold outline for written assignments
- Introduce key vocabulary before lesson
- Work in a small group
- Lesson taught again using a differentiated approach
- Allow answers to be given orally or dictated
- Use visuals / Anchor Charts
- Leveled texts according to ability

#### **Gifted and Talented:**

- Create an enhanced set of introductory activities (e.g. advance organizers, concept maps, concept puzzles)
- Provide options, alternatives and choices to differentiate and broaden the curriculum
- Organize and offer flexible small group learning activities
- Provide whole group enrichment explorations

*Home of the Spartans!*  
*#spartanlegacy*



# Township of Ocean Schools

Assistant Superintendent  
Office of Teaching and Learning

## **SPARTAN MISSION:**

*Meeting the needs of all students with a proud tradition of academic excellence.*

- Teach cognitive and methodological skills
- Use center, stations, or contracts
- Organize integrated problem-solving simulations
- Propose interest-based extension activities
- Expose students to beyond level texts.

### ***Supports for Students With 504 Plans:***

- Follow all the 504 plan modifications
- Text to speech/audio recorded selections
- Amplification system as needed
- Leveled texts according to ability
- Fine motor skill stations embedded in rotation as needed
- Modified or constrained spelling word lists
- Provide anchor charts with high frequency words and phonemic patterns

*Home of the Spartans!*  
*#spartanlegacy*