



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.

DEPARTMENT: Special Education

COURSE: Functional Math

Curriculum Development Timeline

School: OTHS

Course: Functional Math - 18-21 Program

Department: Special Education

Board Approval	Supervisor	Notes
August 2023	Kelly McHale	New Course

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Township of Ocean Pacing Guide			
	Numeracy Skills		Measurement and Estimation
Week	Marking Period 1	Week	Marking Period 3
1-2	Develop proficiency in basic arithmetic operations (addition, subtraction, multiplication, division) Calculator	21-23	Practical applications of measurement (e.g., cooking, construction)
3-4	Enhance mental math skills for quick calculations	24	Estimating quantities and distances
5-6	Understand and apply fractions, decimals, and percentages	25	Understanding units of measurement (customary)
7-8	Measure and convert units of measurement (length, weight, volume)	26-27	Reading and interpreting measurements on scales and rulers
9-10	Interpret and work with numerical data (graphs, charts, tables)	29-30	Measuring and calculating area and perimeter
	Personal Finance		Geometry & Spatial Reasoning
Week	Marking Period 2	Week	Marking Period 4
11-12	Developing Basic Money Skills	31-32	Identifying and classifying shape
13-14	Budgeting and money management	33-34	Understanding basic angles and their applications
15-16	Understanding income and expenses	35-36	Reading and creating simple maps and floor plans
17-18	Banking and financial transactions	37-38	Collecting and organizing data
19-20	Calculating and comparing prices, discounts, and sales tax	39-40	interpreting and creating bar graphs, line graphs, and pie charts

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Time Frame	40 weeks
Topics:	
<ul style="list-style-type: none">• Numeracy Skills• Personal Finance• Measurement and Estimation• Geometry and Spatial Reasoning	
Alignment to Standards:	
<u>Unit 1: Numeracy Skills</u>	
DLM Essential Element - M.EE.HS.N.CN.2.b - Solve real-world problems involving addition and subtraction of decimals, using models when needed.	
<ul style="list-style-type: none">• Grade Level Standard - M.N.CN.2.b - Use the relation $i^2 = -1$ and the commutative, associative, and distributive properties to add, subtract, and multiply complex numbers.	
DLM Essential Element - M.EE.HS.N.CN.2.c - Solve real-world problems involving multiplication of decimals and whole numbers, using models when needed.	
<ul style="list-style-type: none">• Grade Level Standard - M.N.CN.2.c Use the relation $i^2 = -1$ and the commutative, associative, and distributive properties to add, subtract, and multiply complex numbers.	
<u>Unit 2: Personal Finance</u>	
DLM Essential Element - M.EE.2.MD.8. Recognize that money has value.	
<ul style="list-style-type: none">• Grade Level Standard - 2.MD.8. Solve problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately.	
DLM Essential Element - M.EE.4.MD.2.d. Identify coins (penny,nickel, dime, quarter) and their values.	
<ul style="list-style-type: none">• Grade Level Standard - 4.MD.2. Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit.	

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Unit 3: Measurement and Estimation

DLM Essential Element - M.EE.HS.N.Q.1-3 Express quantities to the appropriate precision of measurement.

- **Grade Level Standards:**
- M.N.Q.1 Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.
- M.N.Q.2 Define appropriate quantities for the purpose of descriptive modeling.
- M.N.Q.3 Choose a level of accuracy appropriate to limitations on measurement when reporting quantities

Unit 4: Geometry and Spatial Reasoning

DLM Essential Element - M.EE.G.CO.1. Know the attributes of perpendicular lines, parallel lines, and line segments; angles; and circles.

- **Grade Level Standard:** G.CO.1. Know precise definitions of angle, circle, perpendicular line, parallel line, and line segment, based on the undefined notions of point, line, distance along a line, and distance around a circular arc.

DLM Essential Element - M.EE.G.CO.4–5. Given a geometric figure and a rotation, reflection, or translation of that figure, identify the components of the two figures that are congruent.

Grade Level Standards:

- G.CO.6. Use geometric descriptions of rigid motions to transform figures and to predict the effect of a given rigid motion on a given figure; given two figures, use the definition of congruence in terms of rigid motions to decide if they are congruent. M.EE.G.CO.6–8. Identify corresponding congruent and similar parts of shapes.
- G.CO.7. Use the definition of congruence in terms of rigid motions to show that two triangles are congruent if and only if corresponding pairs of sides and corresponding pairs of angles are congruent.

Learning Objectives and Activities:

Learning Objectives:

- Basic arithmetic operations
- Fractions, decimals, and percentages

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- Mental math strategies
- Working with numerical data
- Budgeting and money management
- Income and expenses calculations
- Banking and financial transactions
- Pricing, discounts, and sales tax
- Practical applications of measurement
- Estimating quantities and distances
- Units of measurement and conversions
- Reading measurements on scales and rulers
- Shapes and their properties
- Area and perimeter calculations
- Reading maps and floor plans
- Collecting and organizing data

Activities:

- [Math Activity Folder](#)

Assessments

Formative Assessments:

- In-class assignments and quizzes
- Real-life application tasks and projects
- Problem-solving exercises
- Group discussions and presentations
- Performance-based assessments (e.g., measuring, calculating, interpreting data)

Summative Assessments:

- Portfolios
- ReThink Ed data
- Benchmarks
- Vocational Reviews/Rubrics

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Interdisciplinary Connections

Social Studies: Students will engage in understanding and applying map skills.
*Geography, People and the Environment: Spatial Views of the World-*Maps and other geographic representations, geospatial technologies, and spatial thinking can be used to understand and communicate information.

Career Readiness, Life Literacies, and Key Skills

Students will use knowledge of money management to gain understanding of personal finances: budgeting, differentiating income and expense, and shopping skills to identify price, discounts, and sales tax.

Financial Health:

- An individual's financial traits and habits affect his/her finances.
- Spending choices and their intended and unintended consequences impact financial outcomes and personal wellbeing.
- Not all financial information is accurate or truthful.

Financial Institutions:

- People can choose to save money in many places such as home in a piggy bank, bank or credit union. There are a variety of factors that influence how well suited a financial institution and/or service will be in meeting an individual's financial needs.
- There are ways to manage your accounts that provide you maximum benefits and protection.
- There are factors you can use to select financial institutions and professionals that are best suited for your needs.

Technology Integration

- 9.4.12.TL.1: Assess digital tools based on features such as accessibility options, capacities and utility for accomplishing a specific task
- 9.4.12.TL.2: Generate data using formula-based calculations in a spreadsheet and draw conclusions about the data. Collaborative digital tools can be used to access, record and share different viewpoints and to collect and tabulate the views of groups of people.
- 9.4.12.TL.3: Analyze the effectiveness of the process and quality of collaborative environments.
- 9.4.12.TL.4: Collaborate in online learning communities or social networks or virtual worlds to analyze and propose a resolution to a real-world problem

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Modifications (ELL, Special Education, At-Risk Students)

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

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