

MStM Math Curriculum Lesson Plan Template

Grade Level: 4th

Teacher: Pelzer/Reynolds

Standard 1: Students can understand and apply a variety of math concepts.

Math Standard/Benchmark: A. understand and apply number properties and operations.

Grade Level Objective: 1.A.4.1: develop an understanding of addition, subtraction, multiplication, and division concepts and strategies for basic facts and related facts **(C,T,G,)**

Instructional Strategies: Students and teacher will review addition and subtraction using flashcards. (should have already mastered these skills) To master multiplication skills begin by having students take a 3 minute timed multiplication test with one hundred problems 0-10. Have students take this timed test once a week. Have kids chart each test taken including the minutes and date. Meanwhile: Starting with 1's-12's, have the kids take a timed test (100 problems/3min.) until they pass each number. Do some kind of chart or display showing their progress. Before doing their 1's-12's tests, have the class think of an incentive for passing so many in a certain time length. (for example: each test they passed they would earn an ice cream scoop. Those ice cream scoops lead to an ice cream party)

Assessments: The teacher will provide numerous timed multiplication tests. After a chapter over multiplication, teacher will provide a written test over materials covered. The teacher will also observe students practice their facts and as he/she corrects student independent work.

Instructional Timeline:

MStM Math Curriculum Lesson Plan Template

Grade Level:4th

Teacher:Pelzer/Reynolds

Standard 1: Students can understand and apply a variety of math concepts.

Math Standard/Benchmark: A. understand and apply number properties and operations.

Grade Level Objective: 1.A.4.2: develop fluency and quick recall of addition, subtraction and multiplication facts and related division facts **(C,T,G,)**

Instructional Strategies: : Continue on with: Students and teacher will review addition and subtraction using flashcards. (should have already mastered these skills) To master multiplication skills begin by having students take a 3 minute timed multiplication test with one hundred problems 0-10. Have students take this timed test once a week. Have kids chart each test taken including the minutes and date. Meanwhile: Starting with 1's-12's, have the kids take a timed test (100 problems/3min.) until they pass each number. Do some kind of chart or display showing their progress. Before doing their 1's-12's tests, have the class think of an incentive for passing so many in a certain time length. (for example: each test they passed they would earn an ice cream scoop. Those ice cream scoops lead to an ice cream party)

Play math games: Multiplication Bingo, Multiplication/Division Bingo, and any kind of math game involving basic math facts.

Assessments: The teacher will provide numerous timed multiplication tests. After a chapter over multiplication, teacher will provide a written test over materials covered. The teacher will also observe students practice their facts and as he/she corrects student independent work.

Instructional Timeline:

MStM Math Curriculum Lesson Plan Template

Grade Level:

Teacher:

Standard 1: Students can understand and apply a variety of math concepts.

Math Standard/Benchmark: A. understand and apply number properties and operations.

Grade Level Objective: 1.A.4.3: develop fluency with multi-digit addition, subtraction, multiplication and division facts(C,T,G,)

Instructional Strategies: Continue on with: Students and teacher will review addition and subtraction using flashcards. (should have already mastered these skills) To master multiplication skills begin by having students take a 3 minute timed multiplication test with one hundred problems 0-10. Have students take this timed test once a week. Have kids chart each test taken including the minutes and date. Meanwhile: Starting with 1's-12's, have the kids take a timed test (100 problems/3min.) until they pass each number. Do some kind of chart or display showing their progress. Before doing their 1's-12's tests, have the class think of an incentive for passing so many in a certain time length. (for example: each test they passed they would earn an ice cream scoop. Those ice cream scoops lead to an ice cream party)

Play math games: Multiplication Bingo, Multiplication/Division Bingo, and any kind of math game involving basic math facts. Use internet websites to allow students to practice facts: such as <http://pres-school.home.att.net/>

Assessments: The teacher will provide numerous timed multiplication tests. After a chapter over multiplication, teacher will provide a written test over materials covered. The teacher will also observe students practice their facts and as he/she corrects student independent/group work.

Instructional Timeline:

MStM Math Curriculum Lesson Plan Template

Grade Level:4th

Teacher:Pelzer/Reynolds

Standard 1: Students can understand and apply a variety of math concepts.

Math Standard/Benchmark: A. understand and apply number properties and operations.

Grade Level Objective: 1.A.4.4: extend place value concepts to represent and compare whole numbers (C,T,G,)

Instructional Strategies: Begin by reviewing place value chart and using the base ten blocks asking students to find the value of certain digits in any multi-digit number. Ask students to identify numbers in each place value spot and compare whether it is less than or great than. Use textbook and review worksheets for the students to practice this skill.

Assessments: The teacher will provide a written test and observe the lesson as the kids are working individually or in groups.

Instructional Timeline:

MStM Math Curriculum Lesson Plan Template

Grade Level:4th

Teacher:Pelzer/Reynolds

Standard 1: Students can understand and apply a variety of math concepts.

Math Standard/Benchmark: A. understand and apply number properties and operations.

Grade Level Objective: 1.A.4.5: develop an understanding of commonly used fractions, including recognizing and generating equivalent representations and introduce the relationship of fractions and decimals **(C,T,G)**

Instructional Strategies: Use textbook to explain and also use math manipulatives. First model what fractional part of a whole does each colored part represent ($1/10$ or $.10$) Also model how students can find how fractions are equal to decimals on a number line. On your number line show your fractions on top and your decimals on bottom. Teacher will call out different fractions and decimals while students will have to find what is equivalent.

Assessments: The teacher will provide a written test and observe the lesson as the kids are working individually or in groups.

Instructional Timeline:

MStM Math Curriculum Lesson Plan Template

Grade: 4th

Teacher: Pelzer/Reynolds

Standard 1: Students can understand and apply a variety of math concepts.

Math Standard/Benchmark: B. understand and apply concepts and procedures of algebra.

Grade Level Objective: 1.B.4.1: represent and analyze patterns and relationships involving addition, subtraction, multiplication, and division **(C,T,G,)**

Instructional Strategies: Show students the relationship of addition, subtraction, multiplication, and division. Start with doing examples with addition: if you have $4 + 4 + 4 = 12$, it's the same as $4 \times 3 = 12$ because you have three 4's that you would be multiplying to get the same answer. With subtraction you could do $3 - 3 = 0$, then show how subtraction relates to division by dividing doing $3 / 3 = 1$.

Assessments: The teacher will provide a written test and observe the lesson as the kids are working individually or in groups.

Instructional Timeline:

MStM Math Curriculum Lesson Plan Template

Grade: 4th

Teacher: Pelzer/Reynolds

Standard 1: Students can understand and apply a variety of math concepts.

Math Standard/Benchmark: B. understand and apply concepts and procedures of algebra.

Grade Level Objective: 1.B.4.2: identify the commutative, associative, and distributive properties and use them to compute with whole number

Instructional Strategies: Since students should have already been taught the properties so they should be able to identify which property they will have to do by just looking at a problem. Review the properties with students to refresh their minds. Then give them examples to identify which property they will compute.

Assessments: The teacher will provide a written test and observe the lesson as the kids are working individually or in groups.

Instructional Timeline:

MStM Math Curriculum Lesson Plan Template

Grade: 4th

Teacher: Pelzer/Reynolds

Standard 1: Students can understand and apply a variety of math concepts.

Math Standard/Benchmark: B. understand and apply concepts and procedures of algebra.

Grade Level Objective: 1.B.4.3: represents and analyze patterns and functions, using words, tables, and graphs **(C,T,G,)**

Instructional Strategies: Tell students that different types of graphs display different types of information. Tell students they will begin by making a bar graph. Using data from the textbook, model to students how to construct a bar graph. Then provide them with other sets of data to make their own bar graph.

Assessments: The teacher will provide a written test and observe the lesson as the kids are working individually or in groups.

Instructional Timeline:

MStM Math Curriculum Lesson Plan Template

Grade: 4th

Grade Level:

Teacher:

Standard 1: Students can understand and apply a variety of math concepts.

Math Standard/Benchmark: C. understand and apply concepts of geometry.

Grade Level Objective: 1.C.4.2: explore congruence and similarity **(C,T,G,)**

Instructional Strategies: Teach from textbook the terms congruent and similar. Ask students how they can check if two figures are congruent or similar? Use practice worksheets and textbook to review. Use dotted paper and rulers to do a 'hands on activity'. Drawing 2 dots by 2 dots and expanding it to see how the figures are similar and/or congruent.

Assessments: The teacher will provide a written test and observe the lesson as the kids are working individually or in groups.

Instructional Timeline:

MStM Math Curriculum Lesson Plan Template

Grade: 4th

Grade Level:

Teacher:

Standard 1: Students can understand and apply a variety of math concepts.

Math Standard/Benchmark: C. understand and apply concepts of geometry.

Grade Level Objective: 1.C.4.3: predict and describe the results of sliding, flipping, and turning (C,T,G,)

Instructional Strategies: Using math manipulatives: Ask students what will happen if I take a triangle and slide it, flip it, or turn it? Students make their predictions and describe the results. Practice using textbook, worksheets, and math manipulatives.

Assessments: The teacher will provide a written test and observe the lesson as the kids are working individually or in groups.

Instructional Timeline:

MStM Math Curriculum Lesson Plan Template

Grade: 4th

Teacher: Pelzer/Reynolds

Standard 1: Students can understand and apply a variety of math concepts.

Math Standard/Benchmark: C. understand and apply concepts of geometry.

Grade Level Objective: 1.C.4.4: use geometric models to solve problems such as determining perimeter, area, volume, and surface area **(C,T,G)**

Instructional Strategies: Review/have students recall the formulas to obtain the perimeter, area, volume, and surface area of an object. Do an example of each formula before doing the next step. Then allow students to practice independently or in groups solving problems using these terms based on different figures provided.

Assessments: The teacher will provide a written test and observe the lesson as the kids are working individually or in groups.

Instructional Timeline:

MStM Math Curriculum Lesson Plan Template

Grade: 4th

Teacher: Pelzer

Standard 1: Students can understand and apply a variety of math concepts.

Math Standard/Benchmark: C. understand and apply concepts of geometry.

Grade Level Objective: 1.C.4.5: use ordered pairs on a coordinate grid to describe points

Instructional Strategies: Explain to students that an ordered pair is used to locate points on a coordinate grid. A coordinate grid has an X-AXIS and a Y-AXIS. After explaining the skill, model to students different examples using a coordinate grid. Allow for kids to practice on their own using grid paper, textbook and other supplemental worksheets.

Assessments: The teacher will provide a written test and observe the lesson as the kids are working individually or in groups.

Instructional Timeline:

MStM Math Curriculum Lesson Plan Template

Grade: 4th

Grade Level:

Teacher:

Standard 1: Students can understand and apply a variety of math concepts.

Math Standard/Benchmark: D. understand and apply concepts of measurement

Grade Level Objective: 1.D.4.1: select and apply appropriate standard (customary and metric) units and tools to measure time, money, length/distance, temperature, volume, weight, and the size of angles **(C,T,G, MCG)**

Instructional Strategies: Size of angles: Review what an angle is and its vertex. Introduce/review how to use a protractor. Make sure you have enough protractors for each student. Model and practice with students how to measure an angle with a protractor. Place the center of the protractor on the vertex of the angle. Line up the center point and the 0° mark on the protractor with on ray of the angle. Then read the measure of the angle where the other ray passes through the scale. Use the scale that makes sense for the angle size.

Time: Explain to children that elapsed time is time that passes from the start to the end of an activity. Using a clock show the students how to count forward from the starting time to the ending time. Ask them how many minutes have passed? Continue to model with individual clocks, examples, and practice worksheets.

Measurement: Introduce to students many different tools in which we use to measure various items with. Examples: rulers, measuring cups, thermometer, scale.

Assessments: The teacher will provide a written test and observe the lesson as the kids are working individually or in groups.

Instructional Timeline:

MStM Math Curriculum Lesson Plan Template

Grade: 4th

Grade Level:

Teacher:

Standard 1: Students can understand and apply a variety of math concepts.

Math Standard/Benchmark: D. understand and apply concepts of measurement

Grade Level Objective: 1.D.4.2: Estimate and measure: (inches, liters, & lbs., etc.)
(C,T,G,)

Instructional Strategies: Model to students the different uses of measurement listed above. Tell students they will estimate examples of the different measurements. Ask the students what you would compare a ruler to? – a man’s foot. Keep asking students questions so they are able to understand how to compare and estimate using real life objects. Liters: pop, lbs: ground beef when cooking. Have kids estimate and measure the distance from your desk to the classroom door, using your foot as the unit of measure. Record their measurements and the actual distance. Compare the results.

Assessments: The teacher will provide a written test and observe the lesson as the kids are working individually or in groups.

Instructional Timeline:

MStM Math Curriculum Lesson Plan Template

Grade: 4th

Teacher: Pelzer/Reynolds

Standard 1: Students can understand and apply a variety of math concepts.

Math Standard/Benchmark: E. understand and apply concepts in probability and statistics.

Grade Level Objective: 1.E.4.1: introduce the distribution of data using mean, median, mode and range
(C,T,G,)

Instructional Strategies: Write the following numbers representing outdoor temperatures on the board: 49,55,58,59,59 Split students into groups and give each group a pile of index cards. On each card have them write one of the numbers. Have students find the temperature that occurred most often and tell them that that number is called the **mode= most frequent. (59)** Ask students now to arrange the cards from least to greatest to find **the middle number which is called the median (58)** Have students use the calculator to find the **mean or average- add all of the numbers together to find the sum and divide by the number of addends used. The answer to the quotient is (56)- the mean.**

Assessments: The teacher will provide a written test and observe the lesson as the kids are working individually or in groups.

Instructional Timeline:

MStM Math Curriculum Lesson Plan Template

Grade: 4th

Teacher: Pelzer/Reynolds

Standard 1: Students can understand and apply a variety of math concepts.

Math Standard/Benchmark: E. understand and apply concepts in probability and statistics.

Grade Level Objective: 1.E.4.2: propose and justify conclusions and predictions based on data
(C,T,G,)

Instructional Strategies: Tell the students they will use the following data to explain the results. There is a group of domino tiles with 0-6 dots and they had to figure out every possible way for the dots to appear on the tiles. Present them with this data: 0,0; 0,1; 0,2; 0,3; 0,4; 0,5; 0,6; 0,1,1; 1,2; 1,3; 1,4,1;5; 1,6, etc.

Assessments: The teacher will provide a written test and observe the lesson as the kids are working individually or in groups.

Instructional Timeline:

MStM Math Curriculum Lesson Plan Template

Grade: 4th

Teacher: Pelzer/Reynolds

Standard 1: Students can understand and apply a variety of math concepts.

Math Standard/Benchmark: E. understand and apply concepts in probability and statistics.

Grade Level Objective: 1.E.4.3: predict the **probability** of simple experiments and events and test the predictions and discuss the degree of likelihood using words such as certain, equally, likely, or impossible
(C,T,G,)

Instructional Strategies: Explain to students they will be predicting the outcome of various experiments which is called the probability or the likelihood of something happening. Use the following marbles in a bag: 4 marbles are red, 7 marbles are blue, and 4 marbles are green= 15 marbles. Have students find the probability of drawing each colored marble out of the bag. Such as: 4/15 chances that you will draw a red or green marble.

Assessments: The teacher will provide a written test and observe the lesson as the kids are working individually or in groups.

Instructional Timeline:

MStM Math Curriculum Lesson Plan Template

Grade: 4th

Teacher: Pelzer/Reynolds

Standard 2: Students can understand and apply methods of estimation.

Math Standard/Benchmark: A. understand and apply concepts and procedures of standard rounding and number sense.

Grade Level Objective: 2.A.4.1: estimate the results of computation with whole numbers and be able to judge reasonableness
(C,T,G,)

Instructional Strategies: Explain to students there will be real life situations in which you can estimate to find an answer. For example: how could you find the answer to $23 + 38$? Well I knew that 23 is closer to 20 and 38 is close to 40. So, $20 + 40 = 60$. So my real answer will be closer to 60.

Assessments: The teacher will provide a written test and observe the lesson as the kids are working individually or in groups.

Instructional Timeline:

MStM Math Curriculum Lesson Plan Template

Grade: 4th

Teacher: Pelzer/Reynolds

Standard 2: Students can understand and apply methods of estimation.

Math Standard/Benchmark: A. understand and apply concepts and procedures of standard rounding and number sense.

Grade Level Objective: 2.A.4.2: round whole numbers the nearest tens, hundreds, and thousands
(C,T,G,)

Instructional Strategies: Review the place value digits for the tens, hundreds and thousands. Begin practicing and modeling to the students rounding numbers to the nearest tens, hundreds, and thousands. Examples: 1,365- have kids round to the nearest tens which is: 1,370. Explain that you have to round up if it is five or greater and you go down if it is lower.

Assessments: The teacher will provide a written test and observe the lesson as the kids are working individually or in groups.

Instructional Timeline:

MStM Math Curriculum Lesson Plan Template

Grade: 4th

Teacher:

Standard 2: Students can understand and apply methods of estimation.

Math Standard/Benchmark: A. understand and apply concepts and procedures of standard rounding and number sense.

Grade Level Objective: 2.A.4.3: develop number sense
(C,T,G,)

Instructional Strategies: Have students practice writing and identifying the value of whole numbers. Have students spin a pointer. Have them write the number on their paper and label it ones. Students should spin again and write the new number directly to the left and label it tens. Repeat until they have made a number through the ten thousands place. Then have students discuss and write the value of each digit. See if they can write the number that is 20,000 more than their number. Repeat by having them make other numbers.

Assessments: The teacher will provide a written test and observe the lesson as the kids are working individually or in groups.

Instructional Timeline:

MStM Math Curriculum Lesson Plan Template

Grade: 4th

Teacher: Pelzer/Reynolds

Standard 3: Students can solve a variety of math problems.

Math Standard/Benchmark: A. solve math problems

Grade Level Objective: 3.A.4.1: can solve single step and multiple step math problems (C,T,G,)

Instructional Strategies: Explain to students that in real life you will use many different operations to obtain a 'story problem' answer. Model to the students a story problem with a single step and also multiple steps using the various operations: + - x ÷ -For example-multi-step problem: Barbara and her mother were at the grocery store and she picked up a package of cheese that was \$3.99, a pound of beef that costs \$4.99, and a 12 pack of pop \$4.99. If Barbara gave the clerk \$20.00 for these three items, how much money would she receive back?

Assessments: The teacher will provide a written test and observe the lesson as the kids are working individually or in groups.

Instructional Timeline:

MStM Math Curriculum Lesson Plan Template

Grade: 4th

Teacher: Pelzer/Reynolds

Standard 3: Students can solve a variety of math problems.

Math Standard/Benchmark: A. solve math problems

Grade Level Objective: 3.A.4.2: identify extraneous and insufficient information in problems
(C,T,G,)

Instructional Strategies: Explain to students that sometimes story problems contain information that is not relevant in needing to solve the problem or they leave out (insufficient) information. Give students several story problems with too much or too little information for them to solve in groups/individually. For example Jan had 5 cats and Amanda had 4 cats and Peter had 6 iguanas. How many cats were there in all? What information was needed and what information was not needed?

Assessments: The teacher will provide a written test and observe the lesson as the kids are working individually or in groups.

Instructional Timeline:

MStM Math Curriculum Lesson Plan Template

Grade: 4th

Teacher: Pelzer/Reynolds

Standard 3: Students can solve a variety of math problems.

Math Standard/Benchmark: B. understand and apply problem-solving approaches and procedures.

Grade Level Objective: 3.B.4.1: choose a method for solving a problem
(C,T,G,)

Instructional Strategies: Ask students what all the ways are to solve: $4 \times 3 = 12$. They could multiply, divide, draw a picture, add, or use a number line. Brainstorm with students on what strategies they can come up with to solve various story problems.

Assessments:

Instructional Timeline:

MStM Math Curriculum Lesson Plan Template

Grade: 4th

Teacher: Pelzer/Reynolds

Standard 4: Students can interpret data presented in a variety of ways.

Math Standard/Benchmark: A. use tables and graphs to locate and read information.

Grade Level Objective: 4.A.4.1: represent and analyze data using tallies, pictographs, table, line plots, bar graphs, circle graphs and line graphs
(C,T,G,)

Instructional Strategies: Tell the students they will be taking a survey on whatever subject they choose. For example: how old were you when you began riding your bike, what is your favorite color, how old were you when your first tooth fell out- anything they want. They will need to take a survey collecting their data to make a graph, chart, table, etc.

Assessments: Students will present their data through charts, graphs, tables etc. Teacher will observe using a checklist.

Instructional Timeline:

MStM Math Curriculum Lesson Plan Template

Grade: 4th

Teacher: Pelzer/Reynolds

Standard 4: Students can interpret data presented in a variety of ways.

Grade: 4th

Math Standard/Benchmark: A. use tables and graphs to locate and read information.

Grade Level Objective: 4.A.4.2: construct and analyze tables, bar graphs, picture graphs and line plots
(C,T,G,)

Instructional Strategies: Tell the students they will be taking a survey on whatever subject they choose. For example: how old were you when you began riding your bike, what is your favorite color, how old were you when your first tooth fell out- anything they want. They will need to take a survey collecting their data to make a graph, chart, table, etc. BUT, they will need to do a different survey and a different representation of their data.

Assessments: Students will present their data through charts, graphs, tables etc. Teacher will observe using a checklist.

Instructional Timeline:

MStM Math Curriculum Lesson Plan Template

Grade: 4th

Teacher:

Standard 4: Students can interpret data presented in a variety of ways.

Math Standard/Benchmark: B. interpret data from a variety of sources.

Grade Level Objective: 4.B.4.1: compare different representations of the same data and evaluate how well each representation shows important aspects of the data
(C,T,G,)

Instructional Strategies: After collecting, analyzing, representing the data used in the students' past surveys, they will need to represent their data differently.

Assessments: Students will present their data through charts, graphs, tables etc. Teacher will observe using a checklist.

Instructional Timeline:

