

## **MStM Math Curriculum Lesson Plan Template**

**Grade Level:** 2<sup>nd</sup> Grade

**Teacher:** Mrs. Franey & Mrs. Scrivner

**Math Standard/Benchmark:**

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

Benchmark A: Understand and apply number properties and operations.

**Grade Level Objective:**

1.A.2.1: Count, represent, read, compare, order & conserve whole numbers

**Instructional Strategies:** (taken from Harcourt Math: Teacher Edition: 2004©)

Give classroom objects to partners. Each partner sorts objects into sets of 10. Each partner uses the objects in a set to model & write a statement or a question. (3B)

**Assessment:**

Teacher observation of student completion of activity page.

**Instructional Timeline:**

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**Grade Level:** 2<sup>nd</sup> Grade

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***Math Standard/Benchmark:***

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

Benchmark A: Understand and apply number properties and operations.

***Grade Level Objective:***

1.A.2.2: Develop understandings of addition & subtraction & strategies for basic addition facts & related subtraction facts

***Instructional Strategies:***

Teacher explains fact families as 4 problems: 2 addition & 2 subtraction, that share 3 common numbers to complete each problem. Students choose 3 of their own numbers to practice fact families.

***Assessment:***

Teacher observation of student completion of activity page.

***Instructional Timeline:***

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**Grade Level:** 2<sup>nd</sup> Grade

**Teacher:** Mrs. Franey & Mrs. Scrivner

**Math Standard/Benchmark:**

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

Benchmark A: Understand and apply number properties and operations.

**Grade Level Objective:**

1.A.2.3: Develop an understanding of whole number relationships, including grouping in 10s & 1s & applying place value concepts

**Instructional Strategies:** (taken from Harcourt Math: Teacher Edition: 2004©)

Divide the class into groups of 4. One child in the group says a number more than 10 and less than 100. The second child says a number that is either 10 more or 10 less than the first number. The third child says whether the number is 10 more or 10 less than the first number. The fourth child records what has been said. Students switch roles and play again. (41B)

**Assessment:**

Teacher observation of student completion of activity page.

**Instructional Timeline:**

**Grade Level:** 2<sup>nd</sup> Grade

**Teacher:** Mrs. Franey & Mrs. Scrivner

***Math Standard/Benchmark:***

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

Benchmark A: Understand and apply number properties and operations.

***Grade Level Objective:***

1.A.2.4: Understand fractional parts are equal shares or equal portions of a whole unit

***Instructional Strategies:*** (taken from Harcourt Math: Teacher Edition: 2004©)

Have children color in more than 1 part of a fraction circle. Have them label the fraction that names each equal part. Have them cut the fraction circle into its equal parts. Ask groups to put the fraction circle back together. As they work, have them say how many equal parts are in the whole, the name of each equal part, & how many of the equal parts are shaded. Then have children name the fraction of the whole that is shaded. Have groups repeat the activity with other fraction circles to name different fractions. (449B)

***Assessment:***

Teacher observation of student completion of activity page.

***Instructional Timeline:***

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**Grade Level:** 2<sup>nd</sup> Grade

**Teacher:** Mrs. Franey & Mrs. Scrivner

**Math Standard/Benchmark:**

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

Benchmark A: Understand and apply number properties and operations.

**Grade Level Objective:**

1.A.2.5: Sort, classify, & order objects by size, number, & other properties

**Instructional Strategies:**

Teacher chooses 10 random numbers between 1-100 and writes them out of order on the front whiteboard. Then, students take turns coming up to the board and put the numbers back in order.

**Assessment:**

Teacher observation of student completion of activity page.

**Instructional Timeline:**

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**Grade Level:** 2<sup>nd</sup> Grade

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**Math Standard/Benchmark:**

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

Benchmark A: Understand and apply number properties and operations.

**Grade Level Objective:**

1.A.2.6: Understand equality as meaning “the same as” & use the = symbol appropriately

**Instructional Strategies:** (taken from Harcourt Math: Teacher Edition: 2004©)

Distribute index cards with  $>$ ,  $<$ ,  $=$  signs and different colored connecting cubes to each group of 5. One child uses cubes of 1 color to model a 2-digit #, while another child uses cubes of a different color to model another 2-digit #. The other 3 children each hold one of the sign cards. Ask the sign card holders to compare the 2 groups of connecting cubes, & have the child with the appropriate sign card place the card between the 2 groups. Other group members should count each group to check that the card used is correct. (37B)

**Assessment:**

Teacher observation of student completion of activity page.

**Instructional Timeline:**

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**Grade Level:** 2<sup>nd</sup> Grade

**Teacher:** Mrs. Franey & Mrs. Scrivner

**Math Standard/Benchmark:**

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

Benchmark B: Understand & apply concepts & procedures of algebra

**Grade Level Objective:**

1.B.2.1: Express #s as equivalent representations to fluently compose & decompose #s (putting together & taking apart)

**Instructional Strategies:**

Teacher models putting together & taking apart up to 3-digit numbers, using a t-type chart. Students make their own charts & model numbers told by the teacher.

**Assessment:**

Teacher observation of student completion of activity page.

**Instructional Timeline:**

## **MStM Math Curriculum Lesson Plan Template**

**Grade Level:** 2<sup>nd</sup> Grade

**Teacher:** Mrs. Franey & Mrs. Scrivner

**Math Standard/Benchmark:**

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

Benchmark C: Understand & apply concepts of geometry

**Grade Level Objective:**

1.C.2.1: Recognize, describe, create, & extend repeating & growing patterns such as physical, geometric, & numeric patterns & translate from 1 representation to another

**Instructional Strategies:** (taken from Harcourt Math: Teacher Edition: 2004©)

Provide each group with various pattern blocks. Invite them to choose 2-3 different shapes to create a pattern unit. Ask groups to arrange their pattern units into a pattern in which each pattern unit repeats 3 or more times. Have groups view each others patterns & identify the patterns. (359B)

**Assessment:**

Teacher observation of student completion of activity page.

**Instructional Timeline:**



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**Math Standard/Benchmark:**

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

Benchmark C: Understand & apply concepts of geometry

**Grade Level Objective:**

1.C.2.2: Recognize & describe shapes & structures in the physical environment

**Instructional Strategies:** (taken from Harcourt Math: Teacher Edition: 2004©)

Sort kids into groups of 3-4 students, giving each group models of solid figures, magazines, art paper, glue, scissors, & yarn. Have children look at the models and name each figure. Have each group look through magazines for pictures of objects that illustrate the figures. Have children glue each picture on a separate sheet of paper & write the name of the figure below. Help each group punch holes in the sheets of paper & use yarn to bind them into a book. (331B)

**Assessment:**

Teacher observation of student completion of activity page.

**Instructional Timeline:**

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**Grade Level:** 2<sup>nd</sup> Grade

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**Math Standard/Benchmark:**

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

Benchmark C: Understand & apply concepts of geometry

**Grade Level Objective:**

1.C.2.3: Compose & decompose geometric shapes, including plane & solid figures

**Instructional Strategies:** (taken from Harcourt Math: Teacher Edition: 2004©)

Give partners pattern blocks & index cards. Have partners write names of plane shapes with straight sides on separate index cards. Ask kids to shuffle cards & place them facedown in a stack. Partners take turns, each choosing 1 card. The 1<sup>st</sup> partner combines pattern blocks to make the shape named on the card. The 2<sup>nd</sup> partner uses different pattern blocks to make the same shape, if possible. Have partners discuss shape they are using to create the shapes on the cards. Then have partners continue until they have used all their cards. (321B)

**Assessment:**

Teacher observation of student completion of activity page.

**Instructional Timeline:**

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**Grade Level:** 2<sup>nd</sup> Grade

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**Math Standard/Benchmark:**

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

Benchmark C: Understand & apply concepts of geometry

**Grade Level Objective:**

1.C.2.4: Identify, name, sort, & describe 2 & 3 dimensional geometric figures regardless of size of orientation

**Instructional Strategies:** (taken from Harcourt Math: Teacher Edition: 2004©)

Have each group of students create a set of cards that include labeled pictures of each solid figure, & cards that tell the number of faces, edges, & vertices of each solid. Each player is dealt 5 cards. The rest are placed face down. Players take turns asking each other for matches to complete the set of 4. If the card asked for is not held in another player's hand, the asker chooses a card from the pile. (333B)

**Assessment:**

Teacher observation of student completion of activity page.

**Instructional Timeline:**

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**Grade Level:** 2<sup>nd</sup> Grade

**Teacher:** Mrs. Franey & Mrs. Scrivner

**Math Standard/Benchmark:**

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

Benchmark C: Understand & apply concepts of geometry

**Grade Level Objective:**

1.C.2.5: Experience & recognize slides, flips, turns, & symmetry to analyze mathematical situations

**Instructional Strategies:** (taken from Harcourt Math: Teacher Edition: 2004©)

Have 1 child draw a shape on dot paper. Then have the partner draw the shape in a different position that requires 1 flip, turn, or slide. Ask the 1<sup>st</sup> child to ID which movement the new shape shows. Kids continue to draw different figures and follow the same procedure. (349B)

**Assessment:**

Teacher observation of student completion of activity page.

**Instructional Timeline:**

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**Grade Level:** 2<sup>nd</sup> Grade

**Teacher:** Mrs. Franey & Mrs. Scrivner

**Math Standard/Benchmark:**

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

Benchmark C: Understand & apply concepts of geometry

**Grade Level Objective:**

1.C.2.6: Use attributes of geometric figures to solve special problems

**Instructional Strategies:** (taken from Harcourt Math: Teacher Edition: 2004©)

For each group, draw 2 sets of all the solid figures in the lesson on 12 separate index cards. Have children write 2 sets of names for all the solid figures in the lesson on 12 separate index cards. Ask groups to shuffle all the cards together & lay them face down in a grid to play a matching game. Have players take turns choosing 2 cards. A name & a picture of that solid figure is a match. Play continues until all cards have been matched. (331B)

**Assessment:**

Teacher observation of student completion of activity page.

**Instructional Timeline:**

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**Grade Level:** 2<sup>nd</sup> Grade

**Teacher:** Mrs. Franey & Mrs. Scrivner

**Math Standard/Benchmark:**

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

Benchmark D: Understand & apply concepts of measurement

**Grade Level Objective:**

1.D.2.1: Identify attributes that are measurable, such as length, weight, time, money, & capacity & use these attributes to order objects & make direct comparisons

**Instructional Strategies:** (taken from Harcourt Math: Teacher Edition: 2004©)

Have children use a variety of coins to model 2 different amounts. Then have children write the 2 amounts & circle the amount that is greater. To continue the activity, have children repeat with 2 other groups of coins, write the amounts, & circle the amount that is less, equal to, or greater. (227B)

**Assessment:**

Teacher observation of student completion of activity page.

**Instructional Timeline:**

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**Grade Level:** 2<sup>nd</sup> Grade

**Teacher:** Mrs. Franey & Mrs. Scrivner

**Math Standard/Benchmark:**

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

Benchmark D: Understand & apply concepts of measurement

**Grade Level Objective:**

1.D.2.2: Estimate & measure length using standard (customary & metric) & nonstandard units with comprehension

**Instructional Strategies:** (taken from Harcourt Math: Teacher Edition: 2004©)

Ask each group to look at the containers of varied shapes & sizes & estimate which holds the least amount & the greatest amount. Ask children to use the paper cup to test their estimates. Have each group pour cups of sand in the containers & count & record how many cups it takes to fill each container. Then ask the groups to put the containers in order, starting with the one that holds the least amount, & ending with the one that holds the most. (399B)

**Assessment:**

Teacher observation of student completion of activity page.

**Instructional Timeline:**

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**Grade Level:** 2<sup>nd</sup> Grade

**Teacher:** Mrs. Franey & Mrs. Scrivner

**Math Standard/Benchmark:**

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

Benchmark E: Understand & apply concepts in probability & statistics

**Grade Level Objective:**

1.E.2.1: Use information displayed on graphs to answer questions & make predictions, inferences & generalizations such as likely & unlikely events

**Instructional Strategies:** (taken from Harcourt Math: Teacher Edition: 2004©)

Have partners color 10 slips of paper purple & 5 slips red. Ask children to shuffle the slips & place them in an envelope. Have children guess which color will come up the most often. Partners take 10 turns each picking a slip from the envelope, recording the outcome in a tally table, & returning. Partners discuss their reasons. (293B)

**Assessment:**

Teacher observation of student completion of activity page.

**Instructional Timeline:**



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**Grade Level:** 2<sup>nd</sup> Grade

**Teacher:** Mrs. Franey & Mrs. Scrivner

**Math Standard/Benchmark:**

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

Benchmark A: Understand & apply concepts & procedures of standard rounding & # sense

**Grade Level Objective:**

2.A.2.1: Estimate the answer to an addition or subtractions problem before computing & determine whether the computed answer makes sense

**Instructional Strategies:** (taken from Harcourt Math: Teacher Edition: 2004©)

Have small groups of children work together. Tell them to draw # lines from 10-30 on long strips of butcher paper. Ask 1 group member to name a # between 10-30. Then have another group member stand on the butcher paper on the 10 nearest the named number. Other group members can count along the # line to check whether the child is standing on the closest 10. This can be repeated giving each child a turn. (133B)

**Assessment:**

Teacher observation of student completion of activity page.

**Instructional Timeline:**

## **MStM Math Curriculum Lesson Plan Template**

**Grade Level:** 2<sup>nd</sup> Grade

**Teacher:** Mrs. Franey & Mrs. Scrivner

**Math Standard/Benchmark:**

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

Benchmark A: Understand & apply concepts & procedures of standard rounding & # sense

**Grade Level Objective:**

2.A.2.2: Estimate, measure, & compute measurable attributes while solving problems

**Instructional Strategies:** (taken from Harcourt Math: Teacher Edition: 2004©)

Have 1 partner lie down on butcher paper & the other trace the 1<sup>st</sup> child's outline. Then have each partner use a different unit of measure (pencils, paper clips, etc...) to measure the length of the outline. (381B)

**Assessment:**

Teacher observation of student completion of activity page.

**Instructional Timeline:**

## **MStM Math Curriculum Lesson Plan Template**

**Grade Level:** 2<sup>nd</sup> Grade

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**Math Standard/Benchmark:**

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

Benchmark A: Solve problems

**Grade Level Objective:**

3.A.2.1: Develop fluency & quick recall of addition facts & relate subtraction facts & fluency with multi-digit addition & subtraction

**Instructional Strategies:**

Teacher will model how to take a timed test while kids watch. Teacher will think aloud the process of completing the test, correcting mistakes, etc...

**Assessment:**

Teacher observation of student completion of test.

**Instructional Timeline:**

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**Grade Level:** 2<sup>nd</sup> Grade

**Teacher:** Mrs. Franey & Mrs. Scrivner

**Math Standard/Benchmark:**

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

Benchmark B: Understand & apply problem-solving approaches & procedures

**Grade Level Objective:**

3.B.2.1: Demonstrate the use of the commutative & associative properties & mathematical reasoning to solve for the unknown quantity in addition & subtraction problems; justify the solution

**Instructional Strategies:** (taken from Harcourt Math: Teacher Edition: 2004©)

Have partners use craft sticks to model an addition # sentence. Have partners use craft sticks to model the subtraction sentence using the same #s. Partners can make a story problem to go with their # sentences & model the story problems with their craft sticks. (93B)

**Assessment:**

Teacher observation of student completion of activity page.

**Instructional Timeline:**

## **MStM Math Curriculum Lesson Plan Template**

**Grade Level:** 2<sup>nd</sup> Grade

**Teacher:** Mrs. Franey & Mrs. Scrivner

**Math Standard/Benchmark:**

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

Benchmark A: Use tables and graphs to locate & read information

**Grade Level Objective:**

4.A.2.1: Collect, sort, organize, & represent data to ask & answer questions

**Instructional Strategies:** (taken from Harcourt Math: Teacher Edition: 2004©)

Give all students a sticky note to put their name on. One at a time, students put the sticky note above their birthday month. Teacher will ask questions and students will interpret graph information. (G14)

**Assessment:**

Teacher observation.

**Instructional Timeline:**

## **MStM Math Curriculum Lesson Plan Template**

**Grade Level:** 2<sup>nd</sup> Grade

**Teacher:** Mrs. Franey & Mrs. Scrivner

**Math Standard/Benchmark:**

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

Benchmark B: Interpret data from a variety of sources

**Grade Level Objective:**

4.B.2.1: Compare different representations of the same data using types of graphs, table, line graphs, & picture graphs

**Instructional Strategies:** (taken from Harcourt Math: Teacher Edition: 2004©)

Give all students a sticky note to put their name on, with their date of birth. One at a time, students put the sticky note above their birthday month on a class graph. Students will make a tally table to chart how many birthdays are before or after the 15<sup>th</sup> of every month. (GI 15)

**Assessment:**

Teacher observation of student completion of activity page.

**Instructional Timeline:**

## **MStM Math Curriculum Lesson Plan Template**

**Grade Level:** 2<sup>nd</sup> Grade

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**Math Standard/Benchmark:**

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

Benchmark B: Interpret data from a variety of sources

**Grade Level Objective:**

4.B.2.2: Describe & specify space & location with simple relationships & coordinate systems

**Instructional Strategies:** (taken from Harcourt Math: Teacher Edition: 2004©)

Prepare a 6x6 grid for each group. Label points on the grid A, B, C, D, & E. Explain that each grid represents a field & there are 5 children standing in the field. The children are called A, B, C, D, & E. Model for children how to locate 1 of the letters. Ask questions for groups to answer as they read their grids. (281B)

**Assessment:**

Teacher observation of student completion of activity page.

**Instructional Timeline:**