

# **MStM Math Curriculum Lesson Plan Template**

**Grade Level: 6<sup>th</sup>**

**Teacher: Mrs. Kuhns**

## **Math Standard/Benchmark:**

Standard 1: Students can understand and apply a variety of math concepts.  
Benchmark A.: The student will understand and apply number properties and operations.

## **Grade Level Objective:**

1.A.6.1: develop and understand of addition, subtraction, multiplication, and division concepts and strategies for basic facts and related facts.

**Instructional Strategies:** Students will practice their understanding of the number properties and apply their knowledge to the number properties to the daily problem solving that they are required to do each day.

**Assessment:** Chapter tests and homework

**Instructional Timeline:**

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### **Math Standard/Benchmark:**

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

Benchmark A.: The student will understand and apply number properties and operations.

### **Grade Level Objective:**

1.A.6.2: develop fluency and quick recall of addition, subtraction and multiplication facts and related division facts

**Instructional Strategies:** Students will practice their facts through this internet drill

<http://resources.oswego.org/games/mathmagician/cathymath.html> and they will go through multiplication facts with a partner

(See 5<sup>th</sup> grade 1A52)

**Assessment: Student work**

**Instructional Timeline:**

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**Grade Level: 6<sup>th</sup>**

**Teacher: Mrs. Kuhns**

## **Math Standard/Benchmark:**

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

Benchmark A.: The student will understand and apply number properties and operations.

## **Grade Level Objective:**

1.A.6.3: develop fluency with multi-digit addition, subtraction, multiplication and division facts

**Instructional Strategies:** Throughout the school year, students are given basic facts practice. <http://www.aea11.k12.ia.us/e2t2/dmr.html> THIS IS A VERY IMPORTANT WEBSITE. THESE DAILY REVIEW ALONE IMPROVE STUDENT ACHIEVEMENT.

**(See 5<sup>th</sup> grade 1A53)**

**Assessment:** Student work

**Instructional Timeline:**

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**Grade Level: 6<sup>th</sup>**

**Teacher: Mrs. Kuhns**

## **Math Standard/Benchmark:**

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

Benchmark A.: The student will understand and apply number properties and operations.

## **Grade Level Objective:**

1.A.6.4: extend place value concepts to represent and compare whole numbers

**Instructional Strategies:** <http://home.att.net/~pres-school/PlaceValueMastery.htm> Students will practice their whole number place value using this website.

## **Assessment:**

## **Instructional Timeline:**

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**Grade Level: 6<sup>th</sup>**

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## **Math Standard/Benchmark:**

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

Benchmark A.: The student will understand and apply number properties and operations.

## **Grade Level Objective:**

1.A.6.5: develop an understanding of commonly used fractions, including recognizing and generating equivalent representations and introduce the relationship of fractions and decimals

**Instructional Strategies:** Students will complete the attached lesson on finding decimal form and fractional lengths of objects in their desks.

**Assessment:** Teacher Observation

**Instructional Timeline:**

# **MStM Math Curriculum Lesson Plan Template**

**Grade Level: 6<sup>th</sup>**

**Teacher: Mrs. Kuhns**

## **Math Standard/Benchmark:**

Standard 1: Students can understand and apply a variety of math concepts.  
Benchmark B. The student will understand and apply concepts and procedures of algebra.

## **Grade Level Objective:**

1.B.6.1: represent and analyze patterns and relationships involving addition, subtraction, multiplication, and division **(CE)**

**Instructional Strategies:** This lesson incorporates a test-taking strategy where students apply their algebra skills. (See attached)

**Assessment:** Teacher observation

**Instructional Timeline:**

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

**Grade Level: 6<sup>th</sup>**

**Teacher: Mrs. Kuhns**

### **Math Standard/Benchmark:**

Standard 1: Students can understand and apply a variety of math concepts.  
Benchmark B. The student will understand and apply concepts and procedures of algebra.

### **Grade Level Objective:**

1.B.6.2: identify the commutative, associative, and distributive properties and use them to compute with whole number

**Instructional Strategies:** Students in groups of 4-5 will create a poster of one of the properties. They will put the property and an example on a poster. Then they will pass the poster on to another group who will then write another example of that same property.

**Assessment:** Teacher observation

**Instructional Timeline:**

# **MStM Math Curriculum Lesson Plan Template**

**Grade Level: 6<sup>th</sup>**

**Teacher: Mrs. Kuhns**

## **Math Standard/Benchmark:**

Standard 1: Students can understand and apply a variety of math concepts.  
Benchmark B. The student will understand and apply concepts and procedures of algebra.

## **Grade Level Objective:**

1.B.6.3: represents and analyze patterns and functions, using words, tables, and graphs

**Instructional Strategies:** Function Box- Students will input a function in a box with a student in it and the class will discuss the output. It is a good way to get kids out of their seat a little. This lesson was adopted from Dr. Larry Leutziger (UNI.E2T2)

**Assessment:** Teacher observation

**Instructional Timeline:**

# MStM Math Curriculum Lesson Plan Template

**Grade Level: 6<sup>th</sup>**

**Teacher: Mrs. Kuhns**

**Math Standard/Benchmark:**

Standard 1: Students can understand and apply a variety of math concepts.  
Benchmark C. The student will understand and apply concepts of geometry.

**Grade Level Objective:**

1.C.6.1: recognize and describe shapes and structures in the physical environment

**Instructional Strategies:**

*Create a Puzzle*



*Use these Internet links for more information to help you complete the Chapter Project.*

*In Activity 2, you may find it easier to draw your rectangular puzzle on [square dot paper](#) that you can print out.*

*To draw the geometric shapes in Activity 3, use [isometric dot paper](#) that you can print out.*

*Learn a way to construct two [similar triangles](#).*

*Beginning the Chapter Project*

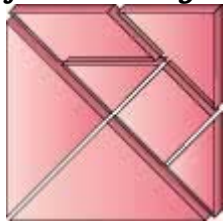
*Do you remember putting together simple puzzles when you were younger? Puzzles designed for young children are often made of wood and have large pieces. The pieces have straight sides so that a child can put the puzzle together easily.*

*Think about one of your favorite pictures. How would it look as a puzzle? Your project is to make an attractive but challenging puzzle for your classmates. Include as many geometric shapes as you can.*

*Activities*

*Activity 1: Identifying*

*The diagram shows a puzzle known as a tangram. Identify the geometric shapes used to form the large square.*



*Activity 2: Drawing*

*Your puzzle must include at least one of each of the following triangles: right, equilateral, isosceles, and scalene. Try drawing a rectangular puzzle on a piece of paper.*

*Activity 3: Planning*

**Your puzzle must also include at least one of each of the following polygons: quadrilateral, pentagon, hexagon, rhombus, trapezoid, and parallelogram. Draw a new puzzle that includes these shapes as well as the four triangle types.**

#### **Activity 4: Designing**

**Prepare the plan for your puzzle. Make sure it includes two triangles that are congruent and two triangles that are similar, but not congruent.**

#### **Finishing the Project**

**Imagine you are a toy salesperson trying to convince your boss that you have a great new puzzle to sell. Hand out the puzzle for your classmates to try and solve.**

**Be sure your work is neat and clear. Write all explanations you think are necessary.**

#### **Reflect and Revise**

**Make a checklist of the requirements for your puzzle. Use the checklist to see if your tangram satisfies all the requirements. How few pieces can you have and still satisfy all the requirements?**

**Exchange puzzles with a classmate and put them together as quickly as possible. Have your classmate write a list of what he/she liked about your puzzle. Then have him/her give you a list of suggestions for how to improve your puzzle.**

**Review the information from your classmate and determine if you want to change your puzzle. If so, write an explanation of why you decide to implement your classmate's suggestions.**

#### **Extending the Project**

**Research various types of puzzle games that you find in the newspaper and on the Internet. Create a list of the types of puzzles that use mathematics. Identify the mathematical concept used in each type of puzzle. For instance, a decoding puzzle might use the problem-solving strategy of logical reasoning.**

**Create a poster displaying the various types of puzzles that use mathematical concepts.**

**Place the puzzles underneath one of the following headings.**

**Number Theory**

**Algebra**

**Geometry**

**Data Statistics**

**Patterns**

**Problem-Solving Strategies**

**Project Checklist**

**Have you done all of the following?**

- **Reviewed the names of geometric shapes.**
- **Practiced drawing different types of triangles, and practiced drawing them inside one another.**
- **Added polygons to your practice pictures.**
- **Reviewed the definitions of similar and congruent triangles.**

## **Assessment:**

### **Scoring Guide**

- 3 Your puzzle includes the ten required shapes as well as the necessary congruent and similar triangles. Your puzzle is carefully made and includes a list of the triangles and polygons you used.**
- 2 Your puzzle meets at least nine of the twelve requirements listed in the project links. Your list of the triangles and polygons in your puzzle is adequate, and your puzzle is attractive.**
- 1 You leave out more than three of the required shapes in your puzzle, you incorrectly identify shapes in your list, or you pay little attention to the appearance of your finished puzzle.**
- 0 Major elements of the project are incomplete or missing.**

## **Instructional Timeline:**

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

**Grade Level: 6<sup>th</sup>**

**Teacher: Mrs. Kuhns**

### **Math Standard/Benchmark:**

Standard 1: Students can understand and apply a variety of math concepts.  
Benchmark C. The student will understand and apply concepts of geometry.

### **Grade Level Objective:**

1.C.6.2: explore congruence and similarity

**Instructional Strategies:** Students will complete the two mac activities attached.

**Assessment: Homework**

**Instructional Timeline:**

# **MStM Math Curriculum Lesson Plan Template**

**Grade Level: 6<sup>th</sup>**

**Teacher: Mrs. Kuhns**

## **Math Standard/Benchmark:**

Standard 1: Students can understand and apply a variety of math concepts.  
Benchmark C. The student will understand and apply concepts of geometry.

## **Grade Level Objective:**

1.C.6.3: predict and describe the results of sliding, flipping, and turning

## **Instructional Strategies:**

### **Summary:**

This geometry lesson teaches students to slide, turn, and flip shapes.

### **Materials:**

- 3" x 5" cards (two per student)
- Crayons or colored pencils
- Pattern blocks, pentominoes, or tangrams

### **Background For Teachers:**

A *slide* (translation) is the movement of a shape right, left, up, or down without changing sides or rotating. A *flip* (reflection) is the movement of a shape from front to back, top to bottom, or bottom to top without turning. A *turn* (rotation) is the movement of a shape by turning without flipping.

### **Intended Learning Outcomes:**

1. Demonstrate a positive learning attitude toward mathematics
2. Become mathematical problem solvers
3. Reason mathematically

### **Instructional Procedures:**

#### **Invitation to Learn**

How many of you have gone down a slippery slide? Who has ever seen someone do a back flip? Who would like to show the class how you turn around?

#### **Instructional Procedures**

Today we are going to learn how things slide, turn, and flip in geometry.

#### **Slides (Translation)**

Have the children lie on the floor (on their backs or stomachs) and ask them to show you a move by sliding.

"How would you show a slide? If your feet are pointing toward me to start, where are they pointing after a slide?" (same way)

### **Flips (Reflection)**

Have the students lie on the floor and show you a flip. Students move from their backs to their stomachs, their stomachs to their backs, or feet to head. Suggest that they flip on their left side, flip on their right side.

Is a summersault a flip? (two flips)

If your head is pointing to me when you start, where is it pointing after a flip?

- Right or left—the head and feet point in the same direction as before, but what is now right was left and vice-versa
- Head or feet flip—the head will be pointing the opposite direction

### **Turns (Rotation)**

How could you show a turn?

If moving from your back to stomach is a flip and not a turn, what does a turn look like? Are your bodies pointing in the same direction before and after a turn? (no, the direction is different for all turns except a complete turn)

Give each student two 3 x 5 cards. Have them draw a picture of themselves lying face up on one side and face down on the other side. Then repeat the drawings on the other card. Each student should have two cards.

Now use your cards to show a slide. Tell how all slides are alike. (you point the same direction: you stay on your back or stomach)

*Hint:* Use one card for the beginning position and use the other card to show the movement.

Now use your cards to show a flip. Tell how all flips are alike. (You move from stomach to back or back to stomach, but may not always point the same direction.)

Now use your cards to show a turn. Tell how all turns are alike. (You stay either on your back or stomach. You usually point in a different direction.)

Use cards to show one to five moves. Example: If you start on your stomach, would you be on your back or stomach after two flips. (on stomach)

How would you be lying after a slide, a flip, and a slide if you start on your stomach. (back)

### **Extensions:**

- Use the card activity with specific directions to access understanding.
- Use pentominoes, or pattern blocks pieces, or shapes cut from graph paper.
  1. Trace a shape.
  2. Trace and label a slide with the same shape.
  3. Trace and label a flip with the same shape.
  4. Trace and label a turn with the same shape.

### ***Assessment:***

### ***Instructional Timeline:***

# **MStM Math Curriculum Lesson Plan Template**

**Grade Level: 6<sup>th</sup>**

**Teacher: Mrs. Kuhns**

## **Math Standard/Benchmark:**

Standard 1: Students can understand and apply a variety of math concepts.  
Benchmark C. The student will understand and apply concepts of geometry.

## **Grade Level Objective:**

1.C.6.4: use geometric models to solve problems such as determining perimeter, area, volume, and surface area

**Instructional Strategies:** Students will complete the Under Cover lesson (attached)

**Assessment: Student work**

**Instructional Timeline:**

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**Grade Level: 6<sup>th</sup>**

**Teacher: Mrs. Kuhns**

## **Math Standard/Benchmark:**

Standard 1: Students can understand and apply a variety of math concepts.  
Benchmark C. The student will understand and apply concepts of geometry.

## **Grade Level Objective:**

1.C.6.4: use geometric models to solve problems such as determining perimeter, area, volume, and surface area

## **Instructional Strategies:**

- Opening two questions to ask the students:
  - Can any of you explain to me what I'm talking about when I say "area"?
  - How about perimeter?
- Well, area is the number of square units that covers a shape or a figure. Perimeter is the sum of lengths of the sides of a polygon. (Explain these definitions to the students in similar terms.)
- Additional questions:
  - In what ways would you be able to use these measurements of area and perimeter?
- Compose a collective list on the chalkboard as a class. Add to it if necessary:
  - Fencing in a yard
  - Putting lace on a project
  - Estimating the amount of paint needed to paint a wall
- Pose a scenario to tie in *The Good Earth*: Suppose it is 1920. Times are hard and you have a family that relies on you for food. You own a plot of land that is shaped like a trapezoid. You decide to plant your own crops. You have a variety of seeds: corn, potato, and cabbage. You have the same amount of corn and cabbage seed, but twice as much potato seed as corn seed. What is a way that you can divide up your plot of land in three sections in order to have enough ground to plant your crops? Also, if you were to buy fencing to keep the animals out, how much would you need to enclose your crops? Well, this is what we are going to work towards today.

## Developmental Activities:

- Demonstrate to the students the correct way to measure a given shape using the geometric cutout figures placed on the chalkboard. (7 minutes)
- Stress the importance of using the proper units throughout the whole problem and in the answer.
- Ask the students if they have any questions.
- Distribute a copy of the transparency to each student. Explain that you will do it together as a class and the students can work at their seats. Do the transparency on area and perimeter on the overhead as the students work at their seats. (Don't forget to keep asking the students questions in order to help complete the transparency.) (15 minutes)
- Ask the students again if they have any questions.
- Tell the students to place the completed worksheet in the corner of their desk for future reference.

- Explain to the students that they are now going to be able to answer the question posed at the beginning of class using the information that they just learned. Communicate to the students that they are going to be given a handout with a trapezoid shape on it and that information that I gave them at the start of class. And their task is to determine a sufficient way of dividing up the land in order to have enough ground for each of their three crops. Also, they must determine the amount of fencing needed to enclose their field. Explain to the students that if they do not complete the assignment by the end of class, you will collect their papers and give them a few minutes to finish up at the beginning of the following class. Inform the students that they will then be required to present their answer and go through the steps they used to complete the project. Remind them to use their units. (5 minutes)
- Ask if anyone has any questions and make sure that each student understands what is expected of them.
- Now, tell the students that they are going to complete this activity in groups of three.
- Divide the students up into the pre-assigned groups. (3 minutes)
- Distribute one calculator to each group of students.
- Walk around and visit each group to check their progress and ask if they have any questions. (25 minutes)
- Approximately two minutes before the end of class, ask the students for a show of hands of who needs more time to complete their assignment. Going by that, collect all the papers from each group to give back out at the start of the next class.
- If time permits: Have each group of students stand in front of the room and present their solution to the rest of the class explaining each step they went through to arrive at their solution. (Remind the students to speak loud and clear.)

#### Assessment/Evaluation:

- Whether or not the students were able to accurately progress through the assignment will allow me to assess if the students learned the material taught to them today.
- When the assignment is complete and turned in, I will be able to check the accuracy of the students' calculations and really determine whether or not the students gaining anything from the lesson.
- Also, when walking around and observing the students, I will be able to make sure each student is actively participating in the group discussion.

#### Conclusion:

- Explain to the students that we will be seeing these area and perimeter formulas again soon.
- Tell them that next week we will be working with them again when we start discussing volume and surface area.
- Ask the students if they have any last questions

## ***Assessment:***

## ***Instructional Timeline:***

# **MStM Math Curriculum Lesson Plan Template**

**Grade Level: 6<sup>th</sup>**

**Teacher: Mrs. Kuhns**

## **Math Standard/Benchmark:**

Standard 1: Students can understand and apply a variety of math concepts.  
Benchmark C. The student will understand and apply concepts of geometry.

## **Grade Level Objective:**

1.C.6.5: use ordered pairs on a coordinate grid to describe points

## **Instructional Strategies:**

Students will practice their ordered pairs on various grids. The one attached is an introductory practice where students will eventually apply the other three quadrants.

**Assessment:** Student Homework

**Instructional Timeline:**

# **MStM Math Curriculum Lesson Plan Template**

**Grade Level: 6<sup>th</sup>**

**Teacher: Mrs. Kuhns**

## **Math Standard/Benchmark:**

Standard 1: Students can understand and apply a variety of math concepts.  
Benchmark D. The student understand and apply concepts of measurement.

## **Grade Level Objective:**

1.D.6.1: select and apply appropriate standard (customary and metric) units and tools to measure length/distance, temperature, time, volume, weight, and the size of angles

## **Instructional Strategies:**

1. Give each student a 20" string. Have them tie it in a circle.
2. Have students make rectangles of various sizes:  $2 \times 8$ ,  $3 \times 7$ ,  $4 \times 6$ , etc. Point out all are 20" in. perimeter.
3. Give each student a ball of yarn and let them cut their own strings to whatever length they desire. Let each student make various rectangles with their string—recording length, width, and perimeter on the chart provided.
4. Have each student answer the questions provided, sharing their answers in groups at the teacher's discretion. Questions can be altered or adjusted for younger students. Help students condense  $w+w+l+l=\text{perimeter}$  to  $2w+2l=\text{perimeter}$  to  $2(w+l)=\text{perimeter}$

## **Assessment:**

Give students a worksheet with pre-drawn rectangles so they can compute perimeter, give dimensions only and have students compute perimeter from the formula, and give the perimeter and one side and have students find the remaining side.

## **nstructional Timeline:**

# **MStM Math Curriculum Lesson Plan Template**

**Grade Level: 6<sup>th</sup>**

**Teacher: Mrs. Kuhns**

## **Math Standard/Benchmark:**

Standard 1: Students can understand and apply a variety of math concepts.  
Benchmark D. The student understand and apply concepts of measurement.

## **Grade Level Objective:**

1.D.6.2: select and use benchmarks (1/2 inch, 2 liters, 5 lbs., etc.) to estimate measurements

## **Instructional Strategies:**

Students will use benchmarks to solve the following tasks attached.

**Assessment:** Teacher observation

**Instructional Timeline:**

# **MStM Math Curriculum Lesson Plan Template**

**Grade Level: 6<sup>th</sup>**

**Teacher: Mrs. Kuhns**

## **Math Standard/Benchmark:**

Standard 1: Students can understand and apply a variety of math concepts.  
Benchmark E. The student will understand and apply concepts in probability and statistics.

## **Grade Level Objective:**

1.E.6.1: introduce the distribution of data using mean, median, mode and range

**Instructional Strategies:** Landmark Shark card activity- Students will shuffle five cards to each player. Students will take turns scoring by calculating the mean, median, and mode. This number that is the highest is the person's score. Students play 10 round and then add up their scores to see how wins with the highest score.

**Assessment:** Teacher observation

**Instructional Timeline:**

# **MStM Math Curriculum Lesson Plan Template**

**Grade Level: 6<sup>th</sup>**

**Teacher: Mrs. Kuhns**

## **Math Standard/Benchmark:**

Standard 1: Students can understand and apply a variety of math concepts.  
Benchmark E. The student will understand and apply concepts in probability and statistics.

## **Grade Level Objective:**

1.E.6.2: propose and justify conclusions and predictions based on data

**Instructional Strategies:** Students will complete the mac activity 252 and 253 that is attached

**Assessment:** Teacher observation

**Instructional Timeline:**

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

**Grade Level: 6<sup>th</sup>**

**Teacher: Mrs. Kuhns**

### **Math Standard/Benchmark:**

Standard 1: Students can understand and apply a variety of math concepts.  
Benchmark E. The student will understand and apply concepts in probability and statistics.

### **Grade Level Objective:**

1.E.6.3: 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

### **Instructional Strategies:**

[http://www.mathgoodies.com/lessons/vol6/intro\\_probability.html](http://www.mathgoodies.com/lessons/vol6/intro_probability.html) Students will practice simple experiments using this interactive website.

**Assessment:** Lesson quiz and chapter test

**Instructional Timeline:**

# **MStM Math Curriculum Lesson Plan Template**

**Grade Level: 6<sup>th</sup>**

**Teacher: Mrs. Kuhns**

## **Math Standard/Benchmark:**

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

Benchmark A The student will understand and apply concepts and procedures of standard rounding and number sense.

## **Grade Level Objective:**

2.A.6.1: develop the ability to estimate the results of computation with whole numbers and be able to judge reasonableness

**Instructional Strategies:** Students can be shown the estimates from the Beacon learning center and create a class discussion about the reasonableness of the estimates.

**Assessment:** Lesson quiz and chapter test

**Instructional Timeline:**

# **MStM Math Curriculum Lesson Plan Template**

**Grade Level: 6<sup>th</sup>**

**Teacher: Mrs. Kuhns**

## **Math Standard/Benchmark:**

Standard 2: Students can understand and apply methods of estimation.  
Benchmark A The student will understand and apply concepts and procedures of standard rounding and number sense.

## **Grade Level Objective:**

2.A.6.2: round whole numbers the nearest tens, hundreds, and thousands

## **Instructional Strategies:**

Students will follow the teacher's direction by follow this sample script. The teacher will provide many opportunities for students to practice rounding. (See attached)

**Assessment:** Teacher observation

**Instructional Timeline:**

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**Grade Level: 6<sup>th</sup>**

**Teacher: Mrs. Kuhns**

### **Math Standard/Benchmark:**

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

Benchmark A The student will understand and apply concepts and procedures of standard rounding and number sense.

### **Grade Level Objective:**

2.A.6.3: estimate the answer to an addition and subtraction problems before computing and determine if the computed answer is correct

### **Instructional Strategies:**

Students will calculate an estimate to a number of problems and then calculate the exact answer to check for reasonableness. (see attached)

**Assessment:** Chapter test

### **Instructional Timeline:**

# **MStM Math Curriculum Lesson Plan Template**

**Grade Level: 6<sup>th</sup>**

**Teacher: Mrs. Kuhns**

## **Math Standard/Benchmark:**

Standard 2: Students can understand and apply methods of estimation.  
Benchmark A The student will understand and apply concepts and procedures of standard rounding and number sense.

## **Grade Level Objective:**

2.A.6.4: use benchmarks to help develop number sense

**Instructional Strategies:** Students will look at actual benchmarks in the room like a stack of books and from there makes an estimate of a given problem.

**Assessment:** Teacher observation

**Instructional Timeline:**

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

**Grade Level: 6<sup>th</sup>**

**Teacher: Mrs. Kuhns**

### **Math Standard/Benchmark:**

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

Benchmark A: The student will solve math problems.

### **Grade Level Objective:**

3.A.6.1: can solve single step and multiple step math problems

**Instructional Strategies:** Students will complete practice word problems in groups and individual. The attached is a sample of practice for an individual.

**Assessment:** Chapter test

**Instructional Timeline:**

# **MStM Math Curriculum Lesson Plan Template**

**Grade Level: 6<sup>th</sup>**

**Teacher: Mrs. Kuhns**

## **Math Standard/Benchmark:**

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

Benchmark A: The student will solve math problems.

## **Grade Level Objective:**

3.A.6.2: identify extraneous and insufficient information in problems

## **Instructional Strategies:**

Students will solve problems on

[WWW.mathplayground.COM](http://WWW.mathplayground.COM). Some of the problems have extra information that is not necessary to solve the problem

## **Assessment:**

## **Instructional Timeline:**

# **MStM Math Curriculum Lesson Plan Template**

**Grade Level: 6<sup>th</sup>**

**Teacher: Mrs. Kuhns**

## **Math Standard/Benchmark:**

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

Benchmark B. The students will understand and apply problem-solving approaches and procedures.

## **Grade Level Objective:**

3.B.6.1: choose a method for solving a problem

**Instructional Strategies:** Students will complete various problems using different problem solving strategies. (see attached) The strategies are referred to on the classroom wall.

**Assessments:** Homework and teacher observation

## **Instructional Timeline:**

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

**Grade Level: 6<sup>th</sup>**

**Teacher: Mrs. Kuhns**

### **Math Standard/Benchmark:**

Standard 4: Students can interpret data presented in a variety of ways.  
Benchmark A. The student will use tables and graphs to locate and read information.

### **Grade Level Objective:**

4.A.6.1: represent and analyze data using tallies, pictographs, table, line plots, bar graphs, circle graphs and line graphs

**Instructional Strategies:** Students will complete the tutorial activity. They will compare the graphs after they construct them. (see attached)

**Assessment:**

**Instructional Timeline:**

# **MStM Math Curriculum Lesson Plan Template**

**Grade Level: 6<sup>th</sup>**

**Teacher: Mrs. Kuhns**

## **Math Standard/Benchmark:**

Standard 4: Students can interpret data presented in a variety of ways.  
Benchmark B. The student will interpret data from a variety of sources.

## **Grade Level Objective:**

4.B.6.1: compare different representations of the same data and evaluate how well each representation shows important aspects of the data

## **Instructional Strategies:**

*Overview/Summary: In this lesson the child will learn how to create spreadsheets, to chart the different colors in a package of Skittles. They will collect data, create appropriate charts and use percentages to describe quantities.*

*Guiding Question: Do all packages of Skittles have the same number and color combinations?*

*Learning Objectives: The student will learn how to create a spreadsheet to chart the different colors in a package of Skittles. They will collect data, create appropriate charts and use percentages to describe quantities.*

*Materials: 1 package of Skittles  
Microsoft EXCEL*

*Internet Resources: [www.skittles.com](http://www.skittles.com)*

### **Procedure**

*Open the package of Skittles and tally the amounts of the different colors of Skittles found in your packages (write the colors and numbers on the back of this sheet).*

- 1. Open the program called Microsoft Excel. The first time we use this program we need to click on "Start" to begin.*
- 2. Click the mouse in cell B1 and type "My Skittle Colors" in the entry bar.*
- 3. Highlight "My Skittle Colors" in the entry bar and change the font size to 14 and BOLD.*
- 4. Press the enter key to move the information from the entry bar to the active cell.*
- 5. Click the mouse in cell B3 and type in "Green". Highlight the word Green and change the font to size 12 and make it BOLD.*
- 6. Highlight cells B4 through B7, change font to size 12 and BOLD.*
- 7. Enter the names of the different colors of the Skittles into cells, B4, B5, B6 and B7. Place your mouse in cell B4 and type in the next color. Continue until all the colors are entered.*
- 8. After you have labeled all of your candy colors, you will need to enter the data recorded for each color. Click the mouse in cell C3 and enter the number of green Skittles found in your package. Repeat for all the colors, entering the data down column C.*
- 9. Once the data is entered, click on cell B3 and drag the mouse to the end of where you entered information in Column C. From the Insert Menu on the Task Bar select Chart. Select Pie Chart. Click next*

*and next again. In the Title Selection space type \_\_\_\_\_'s Skittles. (Put your name on the blank line.)*

*Click on the Data Option tab and select percentages, and then Finish*

*10. Move the Pie chart off the spreadsheet table by clicking on the pie chart and dragging to the side. To increase the size of the pie chart, drag down on the bottom and side of the chart area, and the chart will grow in size.*

*11. Change the color of each piece of pie on the chart by double clicking on the color square in the legend, and selecting the appropriate color from the Pattern tab color chart. The legend and the piece of pie will change to this new color after you click OK.*

*12. When you have completed your pie chart, click on Print Preview to make sure that the chart and the spreadsheet will be printed. Save your work on your disk - call it Skittle Colors - and print 2 copies.*

## ***Assessment:***

*Outcome/Assessment Children complete their spreadsheet and pie chart graphs. They compare their results to answer opening question and check the web site to see if their pie charts and percentages are the same as those advertised on the web.*

## ***Instructional Timeline:***

# **MStM Math Curriculum Lesson Plan Template**

**Grade Level: 6<sup>th</sup>**

**Teacher: Mrs. Kuhns**

## **Math Standard/Benchmark:**

Standard 4: Students can interpret data presented in a variety of ways.  
Benchmark A. The student will use tables and graphs to locate and read information.

## **Grade Level Objective:**

4.A.6.2: construct and analyze tables, bar graphs, picture graphs and line plots

**Instructional Strategies:** Students will use Microsoft Excel to construct different graphs. They will input the data and then analyze them to decide which graph is a better representation.

## **Assessment:**

## **Instructional Timeline:**