


## Mathematics – Mathematical Modeling with Applications (MMA)

### 2021-2022 Pacing Calendar

#### Units of Instruction

##### Unit 1 – Mathematical Modeling in Personal Finance: Introduction to Budgeting

Students understand how a budget is created and how it can support good financial decision making.

2021		August				
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
01	02	03	04	05	06	07
	Enrichment Opportunities					
08	09	10	11	12	13	14
	Enrichment Opportunities					
15	16	17	18	19	20	21
	Teacher Service Days (no students)		Teacher Prep Day (no students)	Teacher Service Days (no students)		
22	23	24	25	26	27	28
		Unit 1 (12 45-min. class periods)				
29	30	31	01	02	03	04
	Unit 1 (12 45-min. class periods)					
05	06	<b>Notes:</b> Aug. 16-20 - Teacher Service Days (no students)				

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## 2021-2022 Pacing Calendar

### Units of Instruction

**Unit 1 – Mathematical Modeling in Personal Finance: Introduction to Budgeting**  
Students understand how a budget is created and how it can support good financial decision making.

**Unit 2 – Mathematical Modeling in Personal Finance: Devise a Budgeting Plan**  
Students use graphical and numerical techniques to study patterns and analyze data related to personal finance.

2021		September					
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	
29	30	31	01 Unit 1 (12 45-min. class periods)	02 • Extend • Review • Assess • Reteach	03	04	
05	06 Labor Day	07 Unit 1 (12 45-min. class periods)	08	09	10	11	
12	13 Unit 1 (12 45-min. class periods)	14 • Extend • Review • Assess • Reteach	15	16 Fall Holiday	17 Teacher Service Day (no students)	18	
19	20 Unit 2 (8 45-min. class periods)	21	22	23	24	25	
26	27 Unit 2 (8 45-min. class periods)	28	29	30 • Extend • Review • Assess • Reteach	01	02	
03	04	<b>Notes:</b> Sept. 6 - Labor Day Sept. 16 - Fall Holiday Sept. 17 - Teacher Service Day (no students)					

## Mathematics – Mathematical Modeling with Applications (MMA)

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#### Units of Instruction

**Unit 3 – Mathematical Modeling in Personal Finance: Banking**  
Students use mathematical processes with graphical and numerical techniques to study patterns and analyze data related to personal finance.

**Unit 4 – Mathematical Modeling in Personal Finance: Loans and Credit**  
Students use mathematical processes with algebraic formulas, graphs, and amortization modeling to solve problems involving credit.

2021		October					
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	
26	27	28	29	30	01 • Extend • Review • Assess • Reteach	02 <b>END OF CYCLE 1</b>	
03	04 Teacher Service Day (no students)	05 Unit 3 (8 45-min. class periods)	06	07	08	09	
10	11 Unit 3 (8 45-min. class periods)	12	13	14 • Extend • Review • Assess • Reteach	15	16	
17	18 Unit 4 (8 45-min. class periods)	19	20	21	22	23	
24	25 Unit 4 (8 45-min. class periods)	26	27	28 • Extend • Review • Assess • Reteach	29	30	
31	01	<b>Notes:</b> Oct. 4 - Teacher Service Day (no students)					

## Mathematics – Mathematical Modeling with Applications (MMA)

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**Units of Instruction**

**Unit 5 – Mathematical Modeling in Personal Finance: Investment**  
Students use mathematical processes with algebraic formulas, numerical techniques, and graphs to solve problems related to financial planning.

**Unit 6 – Mathematical Modeling in Social Science: Theoretical to Empirical Probability**  
Students apply mathematical processes to determine the number of elements in a finite sample space and compute the probability of an event.

2021		November				
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
31	01 Unit 5 (8 45-min. class periods)	02	03	04	05	06
07	08 Unit 5 (8 45-min. class periods)	09	10	11 • Extend • Review • Assess • Reteach	12	13 <b>END OF CYCLE 2</b>
14	15 Unit 6 (6 45-min. class periods)	16	17	18	19 • Extend • Review • Assess • Reteach	20
21	22	23	24	25	26	27
	Thanksgiving					
28	29 Unit 6 (6 45-min. class periods)	30	01	02	03	04
05	06	<b>Notes:</b> Nov. 22-26 - Thanksgiving Break				

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#### Units of Instruction

##### Unit 7 – Mathematical Modeling in Social Science: Analyze Numerical Data

Students analyze data as it applies to social sciences.

##### Unit 8 – Mathematical Modeling in Social Science: Formulate and Execute a Statistical Study

Students design a study and use graphical, numerical, and analytical techniques to communicate the results of the study.

2021		December				
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
28	29	30	01 • Extend • Review • Assess • Reteach	02 Unit 7 (9 45-min. class periods)	03	04
05	06 Unit 7 (9 45-min. class periods)	07	08	09	10	11
12	13 Unit 7 (9 45-min. class periods)	14	15 • Extend • Review • Assess • Reteach	16 Unit 8 (6 45-min. class periods)	17	18
19	20 Enrichment Opportunities	21	22	23	24	25
26	27	28	29	30	31	01
			Winter Break			
02	03	<b>Notes:</b> Dec. 20-31 - Winter Break				

## Mathematics – Mathematical Modeling with Applications (MMA)

### 2021-2022 Pacing Calendar





#### Units of Instruction

##### Unit 8 – Mathematical Modeling in Social Science: Formulate and Execute a Statistical Study

Students design a study and use graphical, numerical, and analytical techniques to communicate the results of the study.

##### Unit 9 – Mathematical Modeling in Science and Engineering: Problem Solving with Quadratic and Variation Functions

Students use quadratic properties and functions as they study and apply patterns and survey data in scientific and engineering settings.

2022		January				
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
26	27	28	29	30	31	01
02	03 Unit 8 (6 45-min. class periods)	04	05	06	07 • Extend • Review • Assess • Reteach	08
09	10 • Extend • Review • Assess • Reteach	11 	12 	13 	14 	15 <b>END OF CYCLE 3</b>
16	17 Martin Luther King, Jr. Day	18 Teacher Prep Day (no students)	19 Unit 9 (8 45-min. class periods)	20	21	22
23	24 Unit 9 (8 45-min. class periods)	25	26	27	28	29
30	31 • Extend • Review • Assess • Reteach	<b>Notes:</b> Jan. 17 - Martin Luther King, Jr. Day Jan. 18 - Teacher Preparation Day (no students)				

## Mathematics – Mathematical Modeling with Applications (MMA)

### 2021-2022 Pacing Calendar

Units of Instruction
<p><b>Unit 10 – Mathematical Modeling in Science and Engineering: Using Exponential Functions</b> Students apply mathematical processes with exponential models to study patterns and analyze data as it applies to science.</p>
<p><b>Unit 11 – Mathematical Modeling in Science and Engineering: Using Geometric and Trigonometric Models to Solve Problems</b> Students apply similarity, geometric transformations, symmetry, and perspective drawing to describe and model mathematical patterns and structure in real- world contexts such as architecture.</p>
<p><b>Unit 12 – Modeling in Fine Arts: Geometric Approach in Art</b> Students use similarity, geometric transformations, symmetry, to describe and model mathematical patterns and structure in real- world contexts such as art and music.</p>

2022		February				
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
30	31	01 Unit 10 (3 45-min. class periods)	02	03	04 • Extend • Review • Assess • Reteach	05
06	07 Unit 11 (12 45-min. class periods)	08	09	10	11	12
13	14 Unit 11 (12 45-min. class periods)	15	16	17	18	19
20	21 Teacher Service Day (no students)	22 Unit 11 (12 45-min. class periods)	23	24 • Extend • Review • Assess • Reteach	25	26 <b>END OF CYCLE 4</b>
27	28 Unit 12 (12 45-min. class periods)	01	02	03	04	05
06	07	<b>Notes:</b> Feb. 21 - Teacher Service Day (no students)				

## Mathematics – Mathematical Modeling with Applications (MMA)

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#### Units of Instruction

##### Unit 12 – Modeling in Fine Arts: Geometric Approach in Art

Students use similarity, geometric transformations, symmetry, to describe and model mathematical patterns and structure in real- world contexts such as art and music.

##### Unit 13 – Mathematical Modeling in Fine Arts: Geometric Approach in Music

Students use trigonometry, and perspective drawing to describe and model mathematical patterns and structure in real- world contexts such as art and music.

2022		March				
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
27	28	01 Unit 12 (12 45-min. class periods)	02	03	04	05
06	07 Unit 12 (12 45-min. class periods)	08	09	10	11 • Extend • Review • Assess • Reteach	12
13	14	15	16	17	18	19
	Enrichment Opportunities			Spring Break		
20	21 Unit 12 (12 45-min. class periods)	22	23	24 • Extend • Review • Assess • Reteach	25	26
27	28 Chávez / Huerta Day	29 Unit 13 (12 45-min. class periods)	30	31	01	02
03	04	<b>Notes:</b> Mar. 14-18 - Spring Break Mar. 28 - César Chávez/Dolores Huerta Day				



## Mathematics – Mathematical Modeling with Applications (MMA)

### 2021-2022 Pacing Calendar

#### Units of Instruction

##### Unit 13 – Mathematical Modeling in Fine Arts: Geometric Approach in Music

Students use trigonometry, and perspective drawing to describe and model mathematical patterns and structure in real- world contexts such as art and music.

##### Unit 14 – Problem Solving in Real World Situations: Create and Develop an Exhibition Project

Students develop and research mathematical connections to various real- world situations in the prior fields of studies: science and engineering, fine arts, personal finance, and fine arts.

2022		April					
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	
27	28	29	30	31	01 • Extend • Review • Assess • Reteach	02	
03	04 Unit 13 (12 45-min. class periods)	05	06	07 • Extend • Review • Assess • Reteach	08	09	
10	11 Unit 13 (12 45-min. class periods)	12	13	14 • Extend • Review • Assess • Reteach	15 Spring Holiday	16	
17	18 Unit 13 (12 45-min. class periods)	19	20	21 • Extend • Review • Assess • Reteach	22	23	
24	25 Unit 14 (8 45-min. class periods)	26	27	28	29	30	
01	02	<b>Notes:</b> Apr. 15 - Spring Holiday					

## Mathematics – Mathematical Modeling with Applications (MMA)

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#### Units of Instruction

**Unit 14 – Problem Solving in Real World Situations: Create and Develop an Exhibition Project**  
Students develop and research mathematical connections to various real- world situations in the prior fields of studies: science and engineering, fine arts, personal finance, and fine arts.

**Unit 15 – Problem Solving in Real World Situations: Project Presentation**  
Students communicate methods used, analyses conducted, and conclusions drawn for a data- analysis project through an exhibition project.





2022		May				
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
01	02 Unit 14 (8 45-min. class periods)	03	04	05 • Extend • Review • Assess • Reteach	06	07
08	09 Unit 15 (12 45-min. class periods)	10	11	12	13 • Extend • Review • Assess • Reteach	14
15	16 Unit 15 (12 45-min. class periods)	17	18	19	20 • Extend • Review • Assess • Reteach	21
22	23 Unit 15 (12 45-min. class periods)	24	25	26	27 • Extend • Review • Assess • Reteach	28
29	30 Memorial Day	31 • Extend • Review • Assess • Reteach	01	02	03	04
05	06	<b>Notes:</b> May 30 - Memorial Day				

# HISD | Secondary Curriculum and Development

ALIGN, ADVANCE, ENGAGE.

## Mathematics – Mathematical Modeling with Applications (MMA)

**2021-2022  
Pacing Calendar**  
Units of Instruction

2022		June				
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
29	30	31	01 • Extend • Review • Assess • Reteach	02 	03 	04
05	06 	07 	08 Teacher Prep Day (no students) END OF CYCLE 6	09	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	01	02
03	04	<b>Notes:</b> Jun. 8 - Teacher Preparation Day (no students)				