G&T Math Curriculum - Grades 1-5 - Unit 1

GRADE 1-2

Grades 1-2 Unit 1 - <u>Length</u>

Unit 1 - Lesson 1 Objectives

- **Students will understand and be able to explain the relationship between the number and size of units when measuring.**
- **Students will recognize the need for equal-length units.**
- **Students will understand and use iteration of units.**
- **Students will provide measures to the nearest inch and nearest half-inch.**

Topic	Duration	Standards	Authentic Assessments
<u>Meet The Detective Duo</u> - Part 1 - Present and Discuss Speaker and Listener Roles Part 2 - Discuss ad Write the Think Deeply Question	90 minutes	MP Standard 1, 3, 5	Student Mathematician's Journal Page 5 - Think Deeply St
<u>Unit 1 Lesson 1 - Marble Crash Tests</u> Part 1 - Measuring to the Nearest Inch and Half-Inch	60 minutes	<u>CCSS.MATH.CONTENT.1.MD.A.2</u> <u>CCSS.MATH.CONTENT.2.MD.A.1</u>	Student Mathematician's Journal page 7 - Prickly Measures Inches & page 9 - Prickly Measure Half Inches Class Results Table - Teacher's Guide page 92
<u>Unit 1 Lesson 1 - Marble Crash Tests</u> Part 2 - Introducing The Marble Crash Test	60 minutes	<u>CCSS.MATH.CONTENT.1.MD.A.2</u> <u>CCSS.MATH.CONTENT.2.MD.A.1</u> <u>CCSS.MATH.CONTENT.1.MD.C.4</u>	Student Mathematician's Journal Page 11-15 - Getting Ready for the Marble Crash Tests
<u>Unit 1 Lesson 1 - Marble Crash Tests</u> Part 3 - Conducting the	60 minutes	<u>CCSS.MATH.CONTENT.1.MD.A.2</u>	Student Mathematician's Journal P. 17 - Marble

G&T Math Curriculum - Grades 1-5 - Unit 1

Marble Crash Test		CCSS.MATH.CONTENT.2.MD.A.1	Crash Tests
Unit 1 Lesson 1- Marble Crash Tests Part 4 - Think Deeply Question	60 Minutes	CCSS.MATH.CONTENT.1.MD.A.2 CCSS.MATH.CONTENT.2.MD.A.1	Student Mathematician's Journal P. 19 - Think Deeply - Why are Dru and Teller's measurements different?

Unit 1 - Lesson 2 Objectives

- **Students will determine the appropriateness of tools used to measure length accurately.**
- **Students will begin to develop their estimation sense by refining their guesses based on additional data.**
- **Students will measure the circumference of objects.**
- **Students will measure objects using centimeters.**

Unit 1 Lesson 2 - Egg Passenger - Part 1 - Measuring in Centimeters and Discussing Car Seat Safety	60 minutes	CCSS.MATH.CONTENT.2.MD.A.1 CCSS.MATH.CONTENT.2.MD.A.2	Student's Mathematician's Journal page 21-23
Unit 1 Lesson 2- Egg Passenger - Part 2 - Measuring Circumference of Egg Passengers	60 minutes	CCSS.MATH.CONTENT.2.MD.A.1 CCSS.MATH.CONTENT.2.MD.A.2	Student's Mathematician's Journal p. 25
Unit 1 Lesson 2- Egg Passenger - Part 3 - Think Deeply Question	60 minutes	CCSS.MATH.CONTENT.2.MD.A.1 CCSS.MATH.CONTENT.2.MD.A.2	Student's Mathematician's Journal p. 27 - Think Deeply

Unit 1 - Lesson 3 Objectives

- **Students will measure using centimeters.**
- **Students will add and subtract measures.**

Unit 1 Lesson 3 - Car Seats for Egg Passenger - Part 1 - Designing the Seatbelts	60 minutes	CCSS.MATH.CONTENT.2.MD.A.1 CCSS.MATH.CONTENT.2.MD.A.2	Student's Mathematician's Journal p. 29
Unit 1 Lesson 3 - Car Seats for Egg Passenger - Part 2 - Conducting the Experiment	60 minutes	CCSS.MATH.CONTENT.2.MD.A.1 CCSS.MATH.CONTENT.2.MD.A.2	The crash test! Discuss the results. Student's Mathematician's Journal p. 35 - Think Deeply
Unit 1 Lesson 3 - Car Seats for Egg Passenger - Part 3 - Think Deeply Question	60 minutes	CCSS.MATH.CONTENT.2.MD.A.1 CCSS.MATH.CONTENT.2.MD.A.2	Chapter 1 Check-up p. 147

GRADE 3

Grade 3 - Unit 1 - Place Value Patterns **Unit 1 - Lesson 1 Objectives** ● **Students will gain a deeper understanding of the importance of regrouping to a place-value system by renaming two-digit numbers using dimes and pennies as well as tens and ones.** ● **Students will organize information into exhaustive lists and charts to enable them to search for patterns and make generalizations about regrouping two- and three-digit number.**			
Topic	**Duration**	**Standards**	**Authentic Day Assessments**
Unit 1 - Lesson 1 - The Maneki Neko Bank Day 1 - Initiate, Investigate, and Mathematical Communication	2 days	CCSS.MATH.CONTENT.3.NBT.A.1 NAGC.3.1.3	Student's Mathematician's Journal page 7 (Day 1 Page 50-52) Student's Mathematician's Journal

G&T Math Curriculum - Grades 1-5 - Unit 1

			Page 9 (Day 2 Page 53-55)
Day 2 - Think Deeply and Think Beyond			

Unit 1 - Lesson 2 Objectives

- **Students will organize information into lists and charts and use patterns to make generalizations about two- and three- digit number.**
- **Students will develop a beginning sense of probability to determine the best strategies for creating greatest or least numbers.**
- **Students will strengthen their understanding of the place-value structure of the base-ten system for ones, tens, and hundreds.**

Unit 1 - Lesson 2 - Card Game Capers Day 1 - Initiate and investigate p. 66 - 68. Day 2 - Mathematical Communication p. 68 - 70	2 days	CCSS.MATH.CONTENT.3.NBT.A.1 NAGC.3.1.3	Day 1 - Student Mathematician's Journal p. 11 Day 2 - Student Mathematician's Journal p.13

Unit 1 - Lesson 3 Objectives

- **Students will determine the best strategies for forming the greatest and least possible two-digit sums and differences.**
- **Students will understand the importance of place value in addition and subtraction of two-digit numbers.**

Unit 1 - Lesson 3 - Some Sum Day 1 - Initiate and investigate p. 80-81 Day 2 - Mathematical Communication and Think Deeply p. 81 - 83	2 days	CCSS.MATH.CONTENT.3.NBT.A.1 NAGC.3.1.3	Day 1 - Student Mathematician's Journal p. 17 Day 2 - Student Mathematician's Journal p. 21 and 23

GRADE 4

Grade 4 - Unit 1 - In The Loop: Representing and Interpreting Data

Unit 1 - Lesson 1 - Objectives

G&T Math Curriculum - Grades 1-5 - Unit 1

- **Students will sort and classify object according to their attributes.**
- **Students will organize, record, and communicate like and unlike attributes with the use of Venn diagrams.**
- **Students will represent categorical data building on the mathematical concepts of "and" and "or."**
- **Students will compare and contrast characteristics of geometric shapes.**

Topic	Duration	Standards	Authentic Assessments
Unit 1 - Lesson 1 - Let's Get in Shape Day 1 - Initiate and Investigate pg. 48-51 Day 2 - Mathematical Communication and Think Deeply p. 52-56	2 days	CCSS.MATH.CONTENT.4.NBT.A.1	Day 1 - Student Mathematician's Journal p. 3 Day 2 - Student Mathematician's Journal p. 7 - Think Deeply Check-up 1 pg. 63

Unit 1 - Lesson 2 - Objectives

- **Students will collect data using a survey.**
- **Students will design investigations to address a question.**
- **Students will organize, record, analyze, and communicate responses to surveys with the use of Venn Diagrams.**
- **Students will develop strategies to determine whether data have the same, some or no common characteristics.**

| Unit 1 - Lesson 2 - Rain or Shine

Day 1 - Initiate and investigate - p. 68 - 71

Day 2 - Mathematical communication and Think Deeply - p. 71 - 75 | 2 days | CCSS.MATH.CONTENT.4.MD.B.4 | Day 1 - Student Mathematician's Journal p. 11

Day 2 - Student Mathematician's Journal p. 13, 15

Check-up 2 |

GRADE 5

Grade 5 - Unit 1 - Exploring Similarity with Stretch The Clown

G&T Math Curriculum - Grades 1-5 - Unit 1

Unit 1 - Lesson 1 Objectives

- **Students will use ratios to compare quantities using words and symbols.**
- **Students will understand the meaning of equivalent ratios and be able to generate equivalent ratios.**
- **Students will measure and draw segments and represent relationships using equivalent ratios.**

Topic	Duration	Standards	Authentic Assessments
Unit 1 - Lesson 1 - Comparing with Ratios Day 1 - Initiate and investigate - p. 52-55 Day 2 - Investigate - p. 56-58. Day 3 - Mathematical communication and Think Deeply - p. 58-60	3 days	CCSS.MATH.CONTENT.6.RP.A.1	Day 1 - Student Mathematician's Journal p. 5-6, 3 Day 2 - Student Mathematician's Journal p. 7-8 Day 3 - Student Mathematician's Journal p. 11 Check-up 1

Unit 1 - Lesson 2 Objectives

- **Students will discover that corresponding angles in similar figures are congruent.**
- **Students will learn that some figures with corresponding congruent angles are not similar.**
- **Students will measure angles accurately.**
- **Students will reason about the relationship between congruent figures and similar figures.**
- **Figures that are congruent are also classified as similar figures.**

Unit 1 - Lesson 2 - Nesting Figures Day 1 - Initiate and investigate - p. 77 - 79	3 days	CCSS.MATH.CONTENT.5.G.B.3	Day 1 - Student Mathematician's Journal p. 13 - 14 Day 2 - Student

Day 2 - Investigate - p. 80 - 83 Day 3 - Mathematical communication and Think Deeply - p. 84 - 85			Mathematician's Journal p. 15 Day 3 - Student Mathematician's Journal p. 17, 19 Check-up 2

Unit 1 - Lesson 3 Objectives

- **Students will expand their definition of mathematical similarity to include the relationship between corresponding sides.**
- **Students will form ratios by comparing corresponding side lengths.**
- **Students will determine if two or more shapes are similar.**
- **Students will construct a definition for similar figures.**

Unit 1 - Lesson 3- Exploring Similarity Day 1 - Initiate and investigate - p. 103 - 104 Day 2 - Investigate - p. 104 - 109 Day 3 - Mathematical communication and Think Deeply - p. 110 - 111	3 days	CCSS.MATH.CONTENT.5.G.B.3	Day 1 - Student Mathematician's Journal p. 21 Day 2 - Student Mathematician's Journal p. 23, 25 Day 3 - Student Mathematician's Journal p. 27, 29

Unit 1 - Lesson 4 Objectives

- **Students will understand how the scale factor affects the size of a similar figure.**
- **Students will use scale factors to draw enlargements and reductions on grid paper.**
- **Students will enlarge geometric figures by using scale factors and measuring angles.**

Unit 1 - Lesson 4- Scaling Up and Down	3 days	CCSS.MATH.CONTENT.5.G.B.3	Day 1 - Drawings of shapes on grid paper

G&T Math Curriculum - Grades 1-5 - Unit 1

<u>Day 1</u> - Initiate - p. 125 - 127 <u>Day 2</u> - Investigate - p. 127 - 129 <u>Day 3 -</u> Mathematical communication and Think Deeply - p.130			Day 2 - Student Mathematician's Journal p. 33 Day 3 - Student Mathematician's Journal p. 35, 37 Check-up 3