HISD | Elementary Curriculum and Development

INSPIRING TEACHING, IGNITING LITERACY & LEARNING.

2019-2020 HISD @ H.O.M.E. – Distance Learning – At-A-Glance
Mathematics – Grade 2

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
Cycle 4 Week 1 May 11-15, 2020	I can model and describe real-world division situations in which a set of objects is shared equally. MATH.2.6B	I can model and describe real-world division situations in which a set of objects is shared equally. MATH.2.6B	I can model and describe real-world division situations. MATH.2.6B	I can model and describe real-world multiplication and division. MATH.2.6A, MATH.2.6B	I can model, create, and describe real-world multiplication and division math stories. MATH.2.6A, MATH.2.6B
Cycle 4 Week 2 May 18-22, 2020	I can model, create, and describe real-world multiplication and division math stories. MATH.2.6A, MATH.2.6B	I can model, create, and describe real-world multiplication and division math stories. MATH.2.6A, MATH.2.6B	I can model, create, and describe real-world multiplication and division math stories. MATH.2.6A, MATH.2.6B	I can explain that saving is an alternative to spending and calculate money saved. MATH.2.11.B	I can distinguish between a deposit and a withdrawal. MATH.2.11C

GLOBAL GRADUATE

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2019-2020 HISD @ H.O.M.E. – Distance Learning
Mathematics – Grade 2
May 11-22, 2020 – Week 1

Monday – 30 minutes

Activity	
I can model and describe real-world division situations in which a set of objects is shared equally.	Vocabulary Review ⟶ **Division:** The operation of splitting a set of objects or a quantity into equal groups or same-size parts **Fair Share:** Parts that have same size or the same area

Example:
Timothy has 20 marbles. He will give 5 marbles to each of his friends. How many friends will receive marbles?
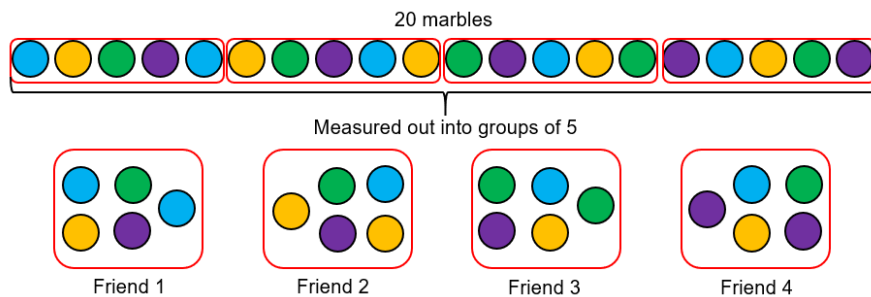
Image by HISD Curriculum using Microsoft® Word

The model below shows that 20 marbles are shared equally among different friends. Each friend will receive 5 marbles.
To figure out how many friends will receive marbles, we measure quantities of 5 until all the marbles are gone. When sharing objects equally, I can use the sentence stem below.

20 marbles *sorted into groups of* ___5___ *makes* _4 equal groups_.

Practice: Draw a model to represent each of the following situations. Then complete the sentence stem below.

Situation A: Erica had 12 pencils. She gave 3 pencils to each of her friends. How many friends received pencils from Erica?

- _____ pencils sorted into groups of _____ makes _____ groups.

Situation B: Trevon has 24 toy cars. He will put 4 toy cars in each box. How many boxes will he use?

- _____ toy cars sorted into groups of _____ makes _____ groups.

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Mathematics – Grade 2
May 11-22, 2020 – Week 1

Tuesday – 30 minutes	
Activity I can model and describe real-world division situations in which a set of objects is shared equally.	Review vocabulary from Monday. **Example:** David has 15 stickers. How many rows of stickers can David make when each row is made of 5 stickers? The model below shows that 15 stickers are in rows. Each row has an equal number of stickers. 15 Stickers Measured Out in Quantities of 5 *Image by HISD Curriculum using Microsoft® Word* 3 Rows We removed 5 <u>three</u> times. 15 – 5 – 5 – 5 = 0. We can use the sentence stem below to help us explain what we did. **15 stickers** *sorted into* **rows of 5** *makes* **3 rows.** **Practice**: Draw a model for the situations below and complete the sentence stems. **Situation A:** Julie lined up 18 miniature dolls in rows. She placed 6 dolls in each row. How many rows did she make? • ____ dolls sorted into _____ makes ___ rows. **Situation B:** Edgar lined up 16 shoes in rows. He put 8 shoes in each row. How many rows did he create? • ____ shoes sorted into _____ makes ____ rows.
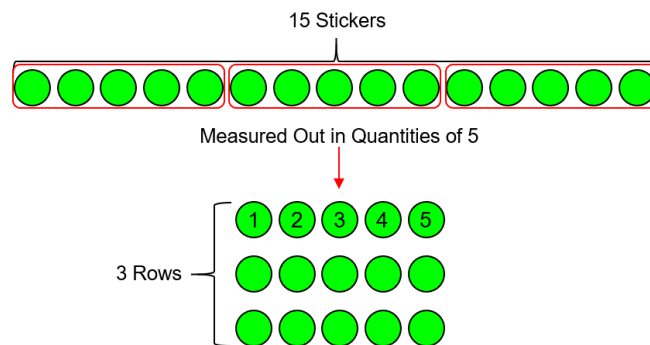
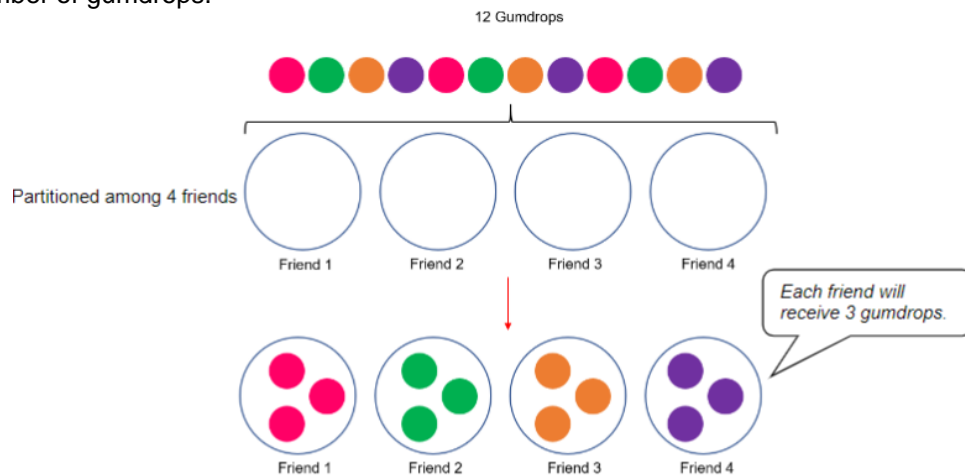|	Wednesday – 30 minutes
Activity I can model and describe real-world division situations.	Review vocabulary from Monday. **Example:** Mary has 12 gumdrops to share equally among 4 friends. How many gumdrops will each friend receive? The model below shows that 12 gumdrops are partitioned among 4 friends. Each friend will receive an equal number of gumdrops. *Image by HISD Curriculum using Microsoft® Word.* We can use the following sentence stem to help us describe what is going on in the problem. ***12 gumdrops*** *partitioned between* ***4 friends*** *makes* ***3 gumdrops per friend***. **Practice**: Solve the situations below and complete the sentence stems. **Situation A:** Adrian wants to partition the cylinders below among 4 groups. *Image by HISD Curriculum using Microsoft Word.* How many cylinders will be in each group? • _____ partitioned between _____ makes _____. **Situation B:** Draw a model for the following situation. Then solve the story problem. Be sure to complete the sentence stem. Ashleigh wants to partition 28 pencils among 7 groups. How many pencils will be in each group? • _____ partitioned between _____ makes _____.

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May 11-22, 2020 – Week 1

Thursday – 30 minutes	
Activity

I can model and describe real-world multiplication and division situations. | The Venn Diagram below includes different situations that we see in multiplication and division math stories.
• First, we understand what the math story is about
• Then, we determine out what the question in the math story is asking us to find out
• Finally, we use the diagram below to help us justify which operation we used to solve the math story.

Multiplication
• Joining equal groups
• The number of groups is <u>known</u>
• Amount in each group is <u>known</u>
• Total number of objects in all is <u>unknown</u>

Both
• Equal groups
• Rows
• Sets
• Stacks
• Piles

Division
• Separating equal groups
• Fair shares
• Measuring out
• Total number of objects is <u>known</u>
• Total number of groups OR the size of groups is <u>unknown</u>

Image by HISD Curriculum using Microsoft® Word

Example:
Gabriel has 6 rows of stickers. Each row has 3 stickers. How many stickers does Gabriel have in all?

Image by HISD Curriculum using Microsoft® Word
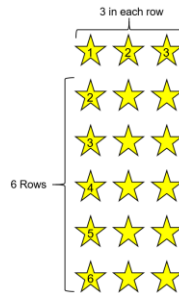
I decided to multiply because to find the solution I would have to join equal groups to find the total number of objects in all. My model represents __multiplication__ because I am joining 6 groups of 3 to find the total number of stickers.

Gabriel has __18 stars in all__.

Practice: Draw a model to represent the following situations. Then explain whether you need to multiply or divide to find the answers to the math stories. Write answers using complete sentences.

Situation A: Marcos has 24 books. He put the same number of books inside 4 boxes. How many books did Marcos put inside each box?

Situation B: William bought 7 packs of erasers. Each pack had 2 erasers. How many erasers did William buy? |

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May 11-22, 2020 – Week 1

	Friday – 30 minutes
Activity I can model, create, and describe real-world multiplication and division stories.	Today we will use the Venn diagram from yesterday's activity to help us create multiplication and division stories. We can use sentence stems to help us write our math stories. Below are three examples of math stories that we can use. **Story 1**: A baker placed _____ rows of cookies in a cookie pan. Each row had _____ cookies. How many cookies did the baker place in the cookie pan? **Story 2**: A farmer planted _____ rows of plants. Each row had _____ flowers. How many plants did the farmer plant? **Story 3**: A teacher bought _____ stickers. He gave the same number of stickers to _____ students. How many stickers did each student receive? **Practice**: Create, model, and solve **two multiplication** and **two division** math story problems. **Step 1:** Create a math story. *Make sure to use the Venn diagram from yesterday's lesson to help you.* **Step 2:** Draw a model to represent the math story. **Step 3:** Solve the math story. **Step 4:** Write your answer in a complete sentence. **Step 5:** Repeat steps 1-4 until you have created and solved a total of four math stories.

Monday – 30 minutes

Activity	
I can model, create, and describe real-world multiplication and division stories.	**Keep this Venn diagram in mind as you read the math story:**

Multiplication
- Joining equal groups
- The number of groups is <u>known</u>
- Amount in each group is <u>known</u>
- Total number of objects in all is <u>unknown</u>

Both
- Equal groups
- Rows
- Sets
- Stacks
- Piles

Division
- Separating equal groups
- Fair shares
- Measuring out
- Total number of objects is <u>known</u>
- Total number of groups OR the size of groups is <u>unknown</u>
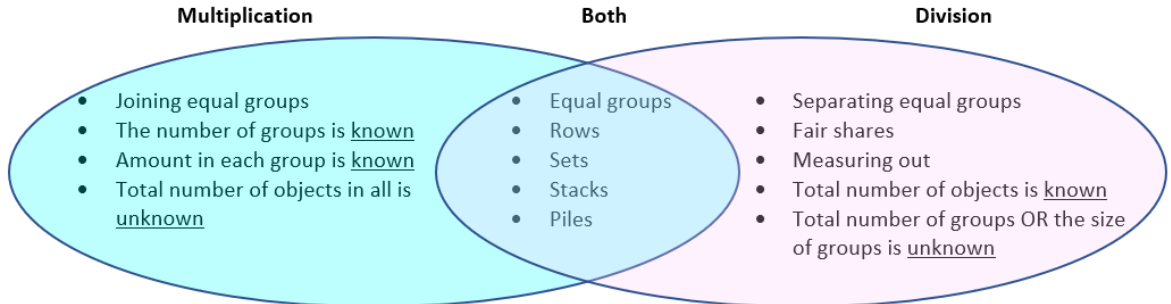
Read the math story frame below:
A baker placed _____ rows of cookies in a cookie pan. Each row had _____ cookies. How many cookies did the baker place in the cookie pan?

Let's pick 2 numbers to fill in the blanks. For example, let's pick the numbers 3 and 8.

A baker placed __3__ rows of cookies in a cookie pan. Each row had __8__ cookies. How many cookies did the baker place in the cookie pan?

We know that this is a multiplication story because the **number of groups is known** and the **amount in each group is known** based on our Venn Diagram.

We can show this with a pictorial model and a number sentence:

We can skip count to find the total number of cookies because I have the same number repeated three times:

$$8 + 8 + 8 = \square$$

0, 8, 16, 24

We can tell what happens in the math story using these sentence frames:
There are __ rows of _____ in each row. This is the same as _____.

There are **3** rows of **8 cookies** in each row. This is the same as **24 cookies in all.**

Practice:
Fill in the blanks below to create your own math story. Identify if it is a multiplication or a division math story. Represent the math story with a picture and show your strategy to find the solution. Then use sentences to tell your math story.

1. A teacher bought _____ stickers. He gave the same number of stickers to _____ students. How many stickers did each student receive?

2. Bill had ____ apples. Bill shared _____ apples equally with his friends. Each friend received the same number of apples. How many of Bill's friends received apples?

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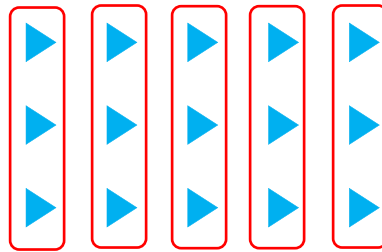| Tuesday – 30 minutes |
|---|

Activity	
I can model, create, and describe real-world multiplication and division math stories.	Today we will use the Venn diagram from yesterday's activity to help us create multiplication and division stories. **Read the math story below and look at the pictorial model matches the story.** Melissa had 5 rows of triangles on her desk. There were 6 triangles in each row. How many triangles did Melissa have on her desk?
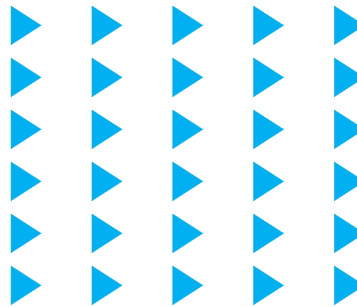
Images created by Microsoft Word

We know that this is a multiplication story because our **number of groups is known** and the **amount in each group is known** based on our Venn Diagram.

We can tell what happens in the math story using these <u>sentence frames</u>:
There are __ rows of _____ in each row. This is the same as _____.

There are **5** rows of **6 triangles** in each row. This is the same as **30 triangles in all.**

Practice: Create a math story for each of the pictorial representations below. Then, use the sentence frames similar to the ones above to tell your math story.

Images created by Microsoft Word

Images created by Microsoft Word

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Wednesday – 30 minutes	
Activity I can model, create, and describe real-world multiplication and division math stories.	Today we will use the Venn diagram from Monday's activity to help us create multiplication and division stories. **Read the math story below and look at the pictorial model that matches the story.** Rosia had 15 triangles on her desk. She gave the same number of triangles to 5 students. How many triangles did each student receive? Images created by Microsoft Word We know that this is a division story because the **total number of objects is known,** and the **number of groups is known** based on our Venn Diagram. We are also **separating into equal groups**. We can tell what happens in the math story using these <u>sentence frames</u>: There are ___ separated into ____. This means that _____. There are **15 triangles** separated into **5 equal groups.** This means that **each group will have 3 triangles.** **Practice:** Create a math story for each of the pictorial representations below. Then, use sentence frames similar to the ones above to tell your math story. Images created by Microsoft Word
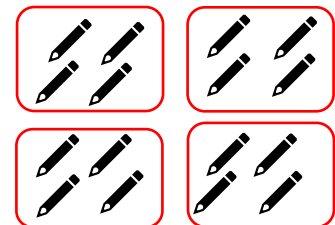
Thursday – 30 minutes	
Activity I can explain that saving is an alternative to spending and calculate money saved.	Sally earned money for doing chores around the house last week. She spent some of the money but also saved some of it (or put it aside to use later).

Day of the Week	Amount Saved	Representation
Monday	10 ¢	
Tuesday	20 ¢	
Wednesday	10 ¢	
Thursday	10 ¢	
Friday	5 ¢	
Total Amount Saved	**55 ¢**	

Images of coins created using 1, 2, 3 Math Fonts with permission

When you save money, and continue to <u>add</u> to that saved money, the total amount of money you save increases (or grows) over time. This is called accumulation. Sally saved the following amounts:

$$10¢ + 20¢ + 10¢ + 10¢ + 5¢ = 55¢$$

Practice: (Use real coins if they are available to help you answer these questions.)
A. Solve the following math story:

Tony gets an allowance every week. He saved 15¢ from his allowance last week and 25¢ from his allowance this week. How much money did Tony save last week and this week?

Challenge: How much more money does Tony need to save if he wants to save a total of 100¢?

B. Answer the following questions:

- How can you calculate how much money a person can save over a week?

- What can you do with money you receive instead of spending it right away?

- Explain why it would be important to save money for later.

Friday – 30 minutes	
Activity I can distinguish between a deposit and a withdrawal.	Piggy banks help us save money. When we put money into the piggy bank, we are making a DEPOSIT. Deposits help add money to the bank and make the amount that you have saved grow larger over time. **Deposit** **(Put Money In)** *Image by Marta Simon from Pixabay* **Example A**: John earned $1.00 for cleaning his room. He put $0.75 into the piggy bank to use later. **Example B:** Keisha earned $0.75 for washing dishes. She put $0.50 inside a shoe box. We can also take money out of piggy bank. We call this a WITHDRAWAL. Withdrawals remove money, causing the money inside the piggy bank to decrease. *Image by Marta Simon from Pixabay* **Withdrawal** **(Take Money Out)** **Example A:** Martin takes out $0.25 of piggy bank to buy gum. **Example B:** Kendra removes $0.50 of her shoe box to buy a raffle ticket. **Practice: Read the following situations and determine whether each is a <u>deposit</u> or a <u>withdrawal</u>. Explain why.** Situation A: Coach Nolan put $2.75 inside a piggy bank to use to buy a basketball later. Situation B: Ms. Stewart took out $0.52 of her shoe box to buy pencils for her son. Situation C: Kendrick earned $0.80 for washing clothes. He saved all his money inside piggy bank.