

3rd Grade Learning Activities

May

Dear Students, Parents, and Families:

As our break extends, your teacher is providing this packet of resources to continue your child's learning. We recommend that your elementary child spends 1-2 hours daily on engaged learning activities, in addition to free time to play, explore, and spend time with family.

Please plan times for the following activities for your child. **NOTE: If your child becomes frustrated or overwhelmed with any of these activities, please contact your child's teacher for assistance.**

READING:

- Read for 30 minutes. This could be broken up into two 15-minute chunks.
- Then respond to one reading prompt by discussing it with someone or by writing about it in your notebook. If you'd like, send some of your responses to your teacher in an email. They would love to hear from you! If you have some extra time in your day, check out the other Ideas section. :) Have fun!

LITERACY:

- Use the first 2 weeks to complete your research book final draft.
- Then, use the videos to help you write an easy opinion paper on your favorite book, sports team, privilege at home, or other topic.
- Practice word wall words for 5 minutes per day. Once you can spell all of the May words by memory, review the April word list. Both lists are in the Word Work section.

MATH:

- Complete the assigned math pages for each day. Plan to check off all of the required math by May 29. Choose other activities from the optional math activities as your child has time.

SCIENCE:

- Watch the 4 mystery science videos in order (check the calendar). You may choose to watch the 5 optional science videos on forces and motion if you have time.

OTHER: (LMC/Tech, PE, Art & Music)

- Choose activities from the Enrichment Activities pages for your child to explore.

Each day, check off the items on the calendar as they are completed. Initial each day when your student has completed the work. Parents and students, please take a picture of your child's daily log and submit it to your teacher's Google Classroom on May 29.

If you have any questions, do not hesitate to reach out to your child's teachers through email. Your continued partnership is always appreciated!

Daily Log

Student Name: _____ Grade _____ Teacher _____

Each day, please check off the items on the daily log as they are completed. Also, initial daily when your child has completed the work.

Monday	Tuesday	Wednesday	Thursday	Friday
<p>May 4 Adult Initials _____</p> <ul style="list-style-type: none"> <input type="checkbox"/> 30 min. Reading <input type="checkbox"/> Watch Math Videos and Lesson 7-1 P. 403 <input type="checkbox"/> Practice sight word spelling <input type="checkbox"/> MAPL Activity 	<p>May 5 Adult Initials _____</p> <ul style="list-style-type: none"> <input type="checkbox"/> 30 min. Reading <input type="checkbox"/> Lesson 7-1 Page 404-406 <input type="checkbox"/> Writing: final draft-book <input type="checkbox"/> MAPL Activity 	<p>May 6 Adult Initials _____</p> <ul style="list-style-type: none"> <input type="checkbox"/> 30 min. Reading <input type="checkbox"/> Watch Math Video Then Page. 407-408 <input type="checkbox"/> Writing: final draft-book <input type="checkbox"/> MAPL Activity 	<p>May 7 Adult Initials _____</p> <ul style="list-style-type: none"> <input type="checkbox"/> 30 min. Reading <input type="checkbox"/> Math Catch up or Optional Activities <input type="checkbox"/> Writing: final draft-book <input type="checkbox"/> MAPL Activity 	<p>May 8 Adult Initials _____</p> <ul style="list-style-type: none"> <input type="checkbox"/> 30 min. Reading <input type="checkbox"/> Watch Mystery Science 1 <input type="checkbox"/> National Field Day activities (PE)
<p>May 11 Adult Initials _____</p> <ul style="list-style-type: none"> <input type="checkbox"/> 30 min. Reading <input type="checkbox"/> Watch Math Videos then Page 409-410 <input type="checkbox"/> Practice sight word spelling <input type="checkbox"/> MAPL Activity 	<p>May 12 Adult Initials _____</p> <ul style="list-style-type: none"> <input type="checkbox"/> 30 min. Reading <input type="checkbox"/> Math Pages 411-414 <input type="checkbox"/> Writing: final draft-book <input type="checkbox"/> MAPL Activity 	<p>May 13 Adult Initials _____</p> <ul style="list-style-type: none"> <input type="checkbox"/> 30 min. Reading <input type="checkbox"/> Math Pages 415-416 <input type="checkbox"/> Writing: final draft-book <input type="checkbox"/> MAPL Activity 	<p>May 14 Adult Initials _____</p> <ul style="list-style-type: none"> <input type="checkbox"/> 30 min. Reading <input type="checkbox"/> Math Catch up & Optional Activities <input type="checkbox"/> Writing: final draft-book <input type="checkbox"/> MAPL Activity 	<p>May 15 Adult Initials _____</p> <ul style="list-style-type: none"> <input type="checkbox"/> 30 min. Reading <input type="checkbox"/> Watch Mystery Science 2 <input type="checkbox"/> MAPL Activity
<p>May 18 Adult Initials _____</p> <ul style="list-style-type: none"> <input type="checkbox"/> 30 min. Reading <input type="checkbox"/> Watch Math Videos Then 421-422 <input type="checkbox"/> Writing: Opinion writing Day 1 <input type="checkbox"/> MAPL Activity 	<p>May 19 Adult Initials _____</p> <ul style="list-style-type: none"> <input type="checkbox"/> 30 min. Reading <input type="checkbox"/> Math Pages 423-425A <input type="checkbox"/> Writing: Opinion writing Day 2 <input type="checkbox"/> MAPL Activity 	<p>May 20 Adult Initials _____</p> <ul style="list-style-type: none"> <input type="checkbox"/> 30 min. Reading <input type="checkbox"/> Math Pages 425-427A <input type="checkbox"/> Writing: Opinion writing Day 3 <input type="checkbox"/> MAPL Activity 	<p>May 21 Adult Initials _____</p> <ul style="list-style-type: none"> <input type="checkbox"/> 30 min. Reading <input type="checkbox"/> Math pages 427-430 <input type="checkbox"/> Writing: Opinion writing Day 4 <input type="checkbox"/> MAPL Activity 	<p>May 22 Adult Initials _____</p> <ul style="list-style-type: none"> <input type="checkbox"/> 30 min. Reading <input type="checkbox"/> Watch Mystery Science 3 <input type="checkbox"/> MAPL Activity
<p>May 25</p> <p style="text-align: center;">NO SCHOOL Enjoy your time with your family</p>	<p>May 26 Adult Initials _____</p> <ul style="list-style-type: none"> <input type="checkbox"/> 30 min. Reading <input type="checkbox"/> Math Pages 431-434 <input type="checkbox"/> Writing: opinion writing Day 5 <input type="checkbox"/> MAPL Activity 	<p>May 27 Adult Initials _____</p> <ul style="list-style-type: none"> <input type="checkbox"/> 30 min. Reading <input type="checkbox"/> Math Pages 435-436 <input type="checkbox"/> Writing: Opinion writing Day 6 <input type="checkbox"/> MAPL Activity 	<p>May 28 Adult Initials _____</p> <ul style="list-style-type: none"> <input type="checkbox"/> 30 min. Reading <input type="checkbox"/> Math Pages 437-439A <input type="checkbox"/> Writing: Opinion writing Day 7 <input type="checkbox"/> MAPL Activity 	<p>May 29 Adult Initials _____</p> <ul style="list-style-type: none"> <input type="checkbox"/> 30 min. Reading <input type="checkbox"/> Watch Mystery Science 4 <input type="checkbox"/> MAPL Activity <p>Submit a picture of this page to Google Classroom</p>

READING

Please read for at least 30 minutes each day and take 5 minutes to respond to what you read. You may choose to read a book that you have with you or use an online book using a resource below. Respond to one prompt below by discussing it with someone or by writing about it in your notebook. Please remember to check off your reading in the calendar.

Fiction Response Prompts

- Predict the theme of the story based on the character's actions so far.
- What details in the story help support the theme?
- What events in your story could NOT happen in real life? Explain why not.
- What was the MOST important event in the story? Why?
- What was the most exciting part of the story so far? Explain why.
- Examine the main character at the beginning, middle and end of the story. ,
- What changes would you make to the story?
- Predict how the changes would transform or change the story.
- What was the author's purpose in writing this book?
- What does the character want? Do you think he/she will get it? If so, how?
- What is your opinion of the story? Did you enjoy reading it?
- How are you feeling as you read?
- How do you know this is fiction?

OTHER (OPTIONAL) IDEAS:

- Email your teacher one of your responses.
- Make a video. (see Fiction Book Hook)
- Combine two characters in the story in order to invent a new character. Write a new story with this combined character as the new main character.
- Draw a picture of the new combined character and describe him/her off to the side your paper.
- Rate your book on a scale of 1 - 10. Defend your rating.

Nonfiction Response Prompts

- What is the most important thing the author wanted you to learn or think about after reading this book? Explain.
- Describe any text features the author used and how they affected your reading experience.
- Imagine you are an expert on the subject you are reading. Describe your job and what you would do.
- Describe what you would change about the book (or part of the book) and why.
- The passage on page(s) ___ is an example of good writing because...
- I wish the author would change this part because...
- Describe new insights or understandings you have after reading the book.
- Describe how you can use what you learned from this book in your own life.
- A situation in the book reminds me of something that happened to me or someone else because...
- How do you know this text is nonfiction?

OTHER (OPTIONAL) IDEAS:

- Email your teacher one of your responses.
- Make a video. (see Nonfiction Book Hook)
- SUMMARIZE - make a mini book version.
- Write a letter to one of the people described or explained in the book.
- Write a letter to the author of the book with your questions and responses to his/her writing.
- Create some new text features to go along with your book.

Online Book Resources

- Scholastic Learn at Home--www.scholastic.com/learnathome Daily learning activities on one topic include several books to read, a related video, and a writing activity.
- BookFlix--<http://teacher.scholastic.com/products/bookflix/#/> (click login in top right)
User: wsaalem, Password: panther, Explore paired fiction and nonfiction texts.
- TrueFlix--<https://sdm-tfx.digital.scholastic.com/?authCtx=U.600107734>
User: wsaalem, Password: panther, Read or listen to a variety of nonfiction books..
- Epic! --<https://www.getepic.com/students>
 - Teacher will provide a class code



Fiction Book Hook

Name: _____

Book Title: _____



HOOK your listeners in an interesting way.

*Make a connection with the audience.

*Provide a character quote.

*Make a surprising statement.

*Ask a question.

Describe the **SETTING(S)**; where and when does this story take place?

Describe a main **CHARACTER**. What kind of person is the character?
How does the character behave and interact with others?

What is a **PROBLEM** the above-mentioned main character faces?

How does an **ACTION** of the described character affect the story?

How does the character you described **CHANGE** over time?

Give your book a **RATING**. The more stars you shade, the better the book!



Make a **RECOMMENDATION**; who do you think would like this book and why?



Nonfiction Book Hook

Name: _____

Book Title: _____



HOOK your listeners in an interesting way; write 1-3 complete sentences, please.

*Ask a question.

*Use a sound effect.

*Make a surprising statement.

*Make an exclamation.

In complete sentences, write **5 INTERESTING FACTS** you learned about the topic.



1. _____

2. _____

3. _____

4. _____

5. _____

Ask a **QUESTION**. What else are you wondering about the topic?

RATE your book. The more stars you shade, the better the book!



WRAP IT UP! Write 3-5 sentences explaining your rating.
Be persuasive and include who should read this book!

LITERACY

Word Work

Practice the high-frequency spelling words for this month. Please choose 3-4 per week for your child to practice until they have them committed to memory. Here are a few ideas for practicing:

- Say each letter while marching in place or doing jumping jacks.
- Form the word with letter cards or magnets. Remove one letter at a time, spelling the word each time, until there are no letters left and you are spelling from memory.
- Say the letters in chunks to practice saying them (wr ... ite)

May words to learn: children, once, animal, world, school, want

Review words from April's packet when you know the words above: knew, study, second, near, today, sure, took, four, head, country, father, picture, earth, year, mother, enough, above, live

___ I can spell these high-frequency words correctly from memory.

Writing – Complete Nonfiction Book AND Write an Opinion Piece

Weeks of May 4 and May 11 Nonfiction Book

___ Write the final draft of your book in your neatest handwriting.

Reminder: Your book should include the following:

- ___ Book cover with the title, author's name, and a beautiful picture.
- ___ Table of Contents listing all of the chapters you have written.
- ___ 3-5 organized chapters on various topics about your subject.
- ___ At least one text feature per topic (picture, caption, diagram, labels, map, comparisons, lists, etc).
- ___ Glossary of bolded words with their definitions (5-10 words)
- ___ Optional: title page (placed after your cover) and an index (placed after the glossary). HAVE FUN! :)

Week of May 18 Basic Opinion Writing Paper (all videos are short; they are 2 - 4 minutes long)

Day 1 ___ Begin by watching the following 2 videos: Opinion Writing Episode 1 (youtu.be/KEK2oGBSsHk) and Opinion Writing Episode 2 (youtu.be/qv4rHG6rrr8)

___ Choose an opinion writing topic. Your opinion is what you think or how you feel about something.

___ Watch Opinion Writing Episode 3 (youtu.be/7kYtkqfXMOg)

___ Fill in your opinion outline (attached). Remember that reasons tell WHY you believe something.

Day 2 ___ Watch Opinion Writing Episode 4: (youtu.be/JmEWpwB85E0)

___ Write a rough draft of your introduction. Be sure to hook your reader, name the topic, and tell your opinion.

Day 3 ___ Watch Opinion Writing Episode 5: (youtu.be/X1e8Zq-fYgE)

___ Continue writing your rough draft including reasons and examples. Remember to include transition words such as: for example, and, also, because, first of all, secondly, lastly, one example, another example.

Week of May 25

Day 4 ___ Watch Opinion Writing Episode 6 (youtu.be/3Xo9C8BxgWE)

___ Write your conclusion: Restate your writing, summarize your reasons, and add one final thought.

Days 5-7 ___ Watch Opinion Writing Episode 7 (youtu.be/6sZao2fUhSw)

___ Lastly, revise, edit, and write your final draft!

Optional Writing Activities

Have fun choosing from these writing activities. These are feel-good activities, if you have time. :)

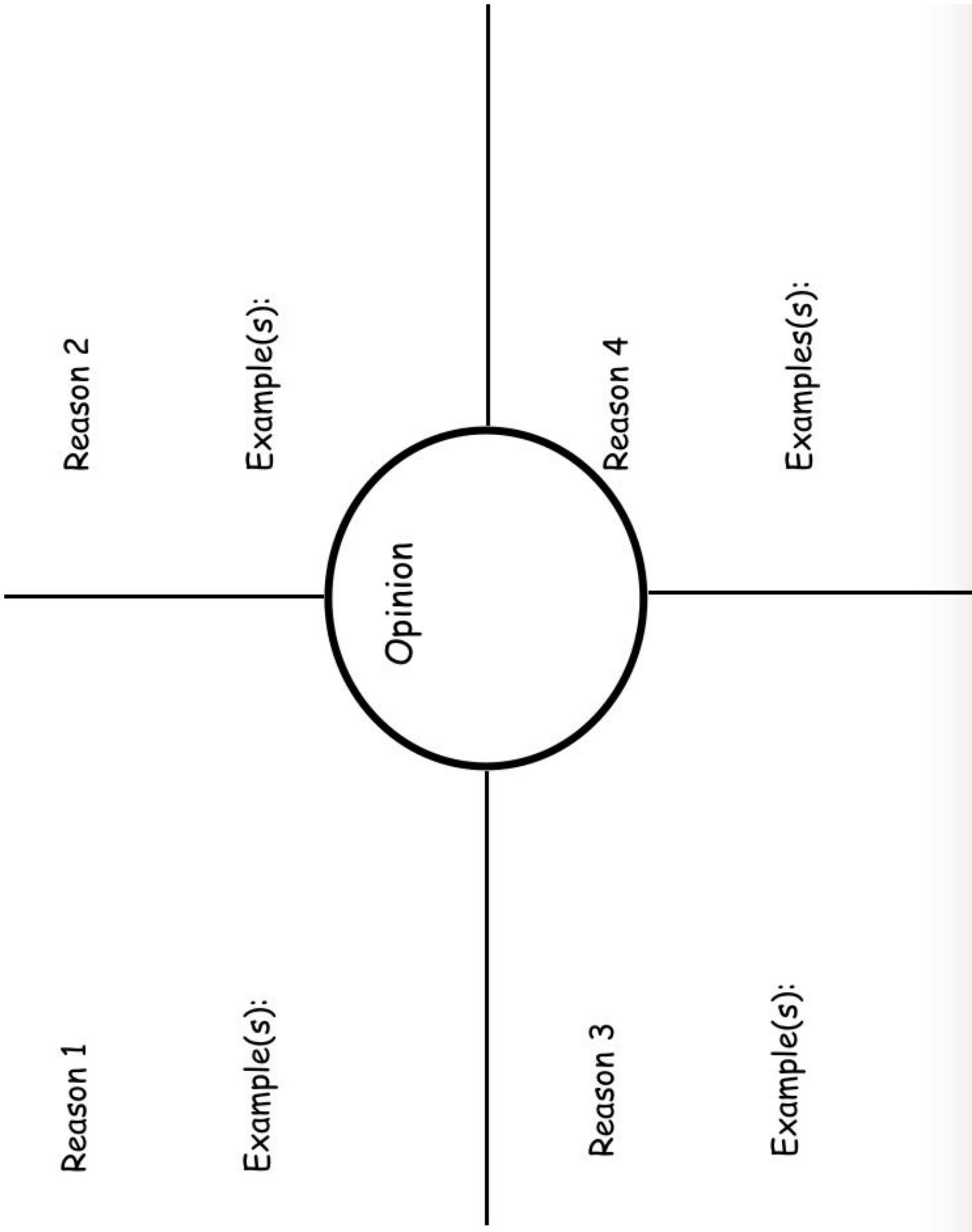
___ Make a list of your favorite things to do while learning from home.

___ What would be a dream vacation for you and your family? Where would you go? What would you do?

___ Write a story about the day we are able to go back to school! What would the perfect day look like?

___ Write a thank you card or letter (again OR to someone else). Think about someone older (a grandparent, great-grandparent, neighbor, aunt, uncle).

___ Write a story about your favorite people. Be sure to list reasons **why** they are so special to you. :)



Reason 1

Example(s):

Reason 2

Example(s):

Opinion

Reason 3

Example(s):

Reason 4

Example(s):

MATH

- Complete these required math activities in the order they are listed.
- Work for 30 minutes and then put it aside for the day. We expect that the workbook lessons (included in this packet) will each take two days to complete.
- If you still have time during your 30 minutes of daily math, choose skills to review from the choices in the bottom box.

Required Math Activities--Complete all

Math Expressions Unit 7: Measurement and Polygons

Watch the introduction videos then complete the lessons in the order listed.

Capacity, Weight, and Mass:

___ <https://www.youtube.com/watch?v=mLRYCaYVWFc>

___ <https://www.youtube.com/watch?v=eqKnx5Yk508>

___ <https://www.youtube.com/watch?v=9UVgO8zS474>

___ <https://www.youtube.com/watch?v=umEp6VMT5kQ>

___ Lesson 7.1 Customary Units of Liquid Volume

___ https://www.youtube.com/watch?v=LhMEqsL_M5o&t=174s

___ Lesson 7.2 Metric Units of Liquid Volume

___ <https://www.youtube.com/watch?v=Dj1rbIP8PHM>

___ <https://www.youtube.com/watch?v=TD1zuENbEdk>

___ Lesson 7.3 Customary Units of Weight / Metric Units of Mass

___ Lesson 7.4 Word Problems with Liquid Volume and Mass

Geometry: Triangles and Quadrilaterals

___ <https://www.youtube.com/watch?v=JcqCf762y9w>

___ <https://www.youtube.com/watch?v=D5IZ3thuEeA>

___ <https://www.youtube.com/watch?v=jXczCSpWqdg> (Challenge / Extension Video)

___ <https://www.youtube.com/watch?v=ALhv3RIydidg>

___ Lesson 7.5 Triangles

___ https://www.youtube.com/watch?v=10dTx1Zy_4w

___ <https://www.youtube.com/watch?v=H-ykHosJW9c>

___ <https://www.youtube.com/watch?v=0OW2bU0So-4>

___ Lesson 7.6 Parallelograms, Rectangles, Squares, and Rhombuses

___ Lesson 7.7 Draw Quadrilaterals

___ Lesson 7.8 Classify Quadrilaterals

Optional Math Activities

Khan Academy (access through Google Classroom)

Prodigy <https://www.prodigygame.com> (students have login information from classroom teachers)

Math Playground <https://www.mathplayground.com/>

Keep practicing those multiplication facts ("Flash to Pass" is a good iPad app)

Flocabulary is a website offering a free 60-day trial. Sign up to enjoy extra instructional videos such as these.

Geometry: Quadrilateral and Triangle Videos

___ <https://www.flocabulary.com/unit/weve-got-some-shapes/>

___ <https://www.flocabulary.com/unit/types-of-angles/>

___ <https://www.flocabulary.com/unit/types-of-triangles/>

___ <https://www.flocabulary.com/unit/parallel-perpendicular-lines/>

___ <https://www.flocabulary.com/unit/symmetry/>

ENRICHMENT ACTIVITIES

Complete the Mystery Science Lessons in order by watching the videos below. Remember that doing the activity or the extensions are optional. Choose to explore the optional Invisible Forces unit as you have time.

Expected Science Activities

Expected Unit: Power of Flowers (plant life cycle and heredity)

May 8 - Lesson 1: Pollination & Plant Reproduction: Why do plants grow flowers?

<https://mysteryscience.com/flowers/mystery-1/pollination-plant-reproduction/91?code=NDExNDY1NDM&t=student>

May 15 - Lesson 2: Seed Dispersal & Plant Life Cycle: Why do plants give us fruit?

<https://mysteryscience.com/flowers/mystery-2/seed-dispersal-plant-life-cycle/89?code=NDExNDY1NDM&t=student>

May 22 - Lesson 3: Trait Variation, Inheritance, & Artificial Selection: Why are some apples red and some green?

<https://mysteryscience.com/flowers/mystery-3/trait-variation-inheritance-artificial-selection/90?code=NDExNDY1NDM&t=student>

May 29 - Lesson 4: Trait Variation, Inheritance, & Artificial Selection: How could you make the biggest fruit in the world?

<https://mysteryscience.com/flowers/mystery-4/trait-variation-inheritance-artificial-selection/92?code=NDExNDY1NDM&t=student>

Optional Science Activities

Optional Unit: Invisible Forces: (forces, motion, and magnets)

Lesson 1: Balanced and Unbalanced Forces: How could you win a tug-of-war against a bunch of adults?

<https://mysteryscience.com/forces/mystery-1/balanced-unbalanced-forces/111?code=NDExNDY1NDM&t=student>

Lesson 2: Balanced Forces & Engineering: What makes bridges so strong?

<https://mysteryscience.com/forces/mystery-2/balanced-forces-engineering/43?code=NDExNDY1NDM&t=student>

Lesson 3: Friction & Pattern of Motion: How can you go faster down a slide?

<https://mysteryscience.com/forces/mystery-3/friction-pattern-of-motion/44?code=NDExNDY1NDM&t=student>

Lesson 4: Magnets & Forces: What can magnets do?

<https://mysteryscience.com/forces/mystery-4/magnets-forces/45?code=NDExNDY1NDM&t=student>

Lesson 5: Magnets & Engineering: How can you unlock a door using a magnet?

<https://mysteryscience.com/forces/mystery-5/magnets-engineering/151?code=NDExNDY1NDM&t=student>

MAPL (Music, Art, PE, LMC) Activities

Music Activities from Mrs. Jones & Mrs. Martin

- ___ Explore Rhythm or Songmaker on: <https://musiclab.chromeexperiments.com/Experiments>
- ___ Watch the LaCrosse Symphony: <https://www.lacrossesymphony.org/la-crosse-arts-online-symphony-online/>
- ___ **Music Escape room:**
https://drive.google.com/open?id=1UXpO7x9_v0ME8uZGS_6VZi2TCEWD_aufFsYQoVhchHg
- ___ Sing along to a favorite song!
- ___ Watch The Masked Singer or American Idol and talk about what you observe in the performance.
- ___ Try Find a Family Member Who: https://drive.google.com/open?id=1Pw5AUhWuHLqjxy_1KVNtnWrgShq0RBme

Art Ideas from Ms. Lotspaih & Mrs. Finch

- ___ Close one eye. Hold your hand about 6 inches from your open eye. Use your pointer finger and thumb to measure the height of objects around you. Start by measuring something close to you, then something far away. Objects that are close appear larger and objects that are far away appear smaller. This is called **perspective**. Artist David Zinn uses perspective to make his drawings look real!
- ___ David Zinn is a street artist. Watch this video about his work! <https://www.youtube.com/watch?v=nW-MbHbLpBE>
- ___ After you have watched the video, use chalk to create a work of art outside that interacts with its surroundings. (ex: use chalk to draw a worm coming out of a crack in the sidewalk) *Feel free to move this activity indoors.
- ___ Play Pictionary: Draw a picture and have someone guess what it is as you draw!
- ___ Create a maze and have someone in your family solve it! (Can be drawn on paper, made with furniture, or sidewalk chalk outside)

Physical Education with Mrs. Meyers, Mr. Merrill & Ms. Tischler

- *Click on the link for our **MAY PE CHOICE BOARD**, which offers a variety of ways to be active! We hope you have fun!! <https://drive.google.com/file/d/1KJTc90S7g6YqvQRhcli8srcqsoPuo7yg/view?usp=sharing>
- ***NATIONAL FIELD DAY**, Friday May 8th 2020! Watch for more information on this exciting event or click on the links on the choice board.
- ***SHARE WITH US!!** We would love to hear from you about the ways you are staying active at home! Click on this link to fill out a short form! <https://forms.gle/7iEBr1LucRWByPFM9>


LMC/Tech Activities from Mrs. Hundt & Mrs. Mead

- ***LMC - LMC Choice Board!** Pick and choose from the links on the LMC Choice Board <https://drive.google.com/file/d/1c3xpC xv004xaQaSRoySZ41migZbV68iS/view?usp=sharing>
If you do not have internet connection, pick and choose from the Library Bingo Sheet included in this packet.
- ***Technology - Technology Choice Board!** Pick and choose from the links on the 3-4 Tech Choice Board: <https://drive.google.com/file/d/1l01K5bgXLXHTnYhhRtFvWk3oDuQfv4QL/view?usp=sharing>

READ AT HOME

BINGO

When you complete a task, color in the box! How many times can you get BINGO? Can you complete the card?

read aloud to someone	read a book about animals	read for 15 minutes	read your favorite book	let a parent choose a book
read under the table	read then draw a picture	read in bed	read a silly book	make a fort and read inside
take turns reading a page with someone	read for 10 minutes		read to a pet or stuffed animal	read while enjoying a snack
read with a flashlight	read on a couch or comfy chair	read a fairy tale	read twice in one day	read a book then retell it to someone
read a book then write a review	have someone read to you	read while snuggling	read in the tub (blanket and pillow)	read for 20 minutes



Gr 3/4 Tech Choice Board



Here are some fun technology choices to do at home.



"Design Your Own Robot"

Build a robot out of recyclable materials you can find around the house. Click on the link for additional directions.

"A to Z Photo Scavenger Hunt"

Use your iPad's camera to take pictures of something (found inside or outside your home) starting with every letter, A through Z.

watch "AS Fast AS Words Could Fly"

by Dule Hill on the Storyline Online website.



Play "Secret Robot Builder 3000" with a family member. Click on the link for directions.

Using Google Docs or Google Slides, create a project to share your photos with me.

Create a picture using only the letters, numbers, and symbols found on a keyboard.

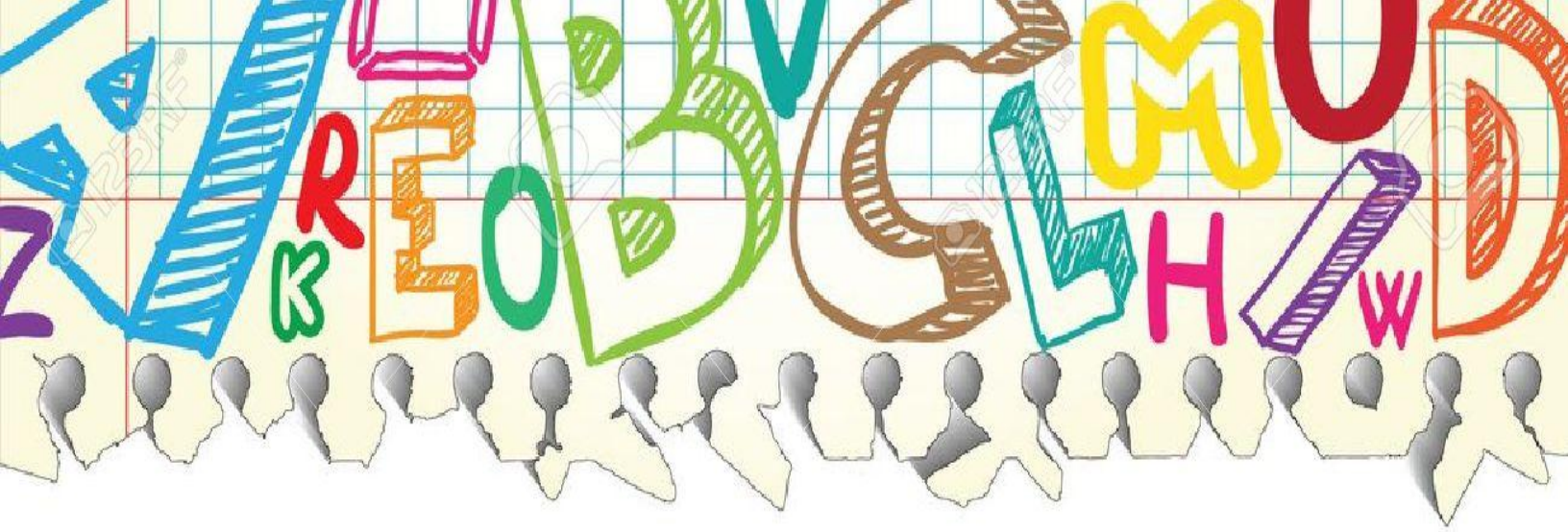
Check out the new coding sites bookmarked on "Mrs. Mead's Technology Links"

"Google Quick Draw"

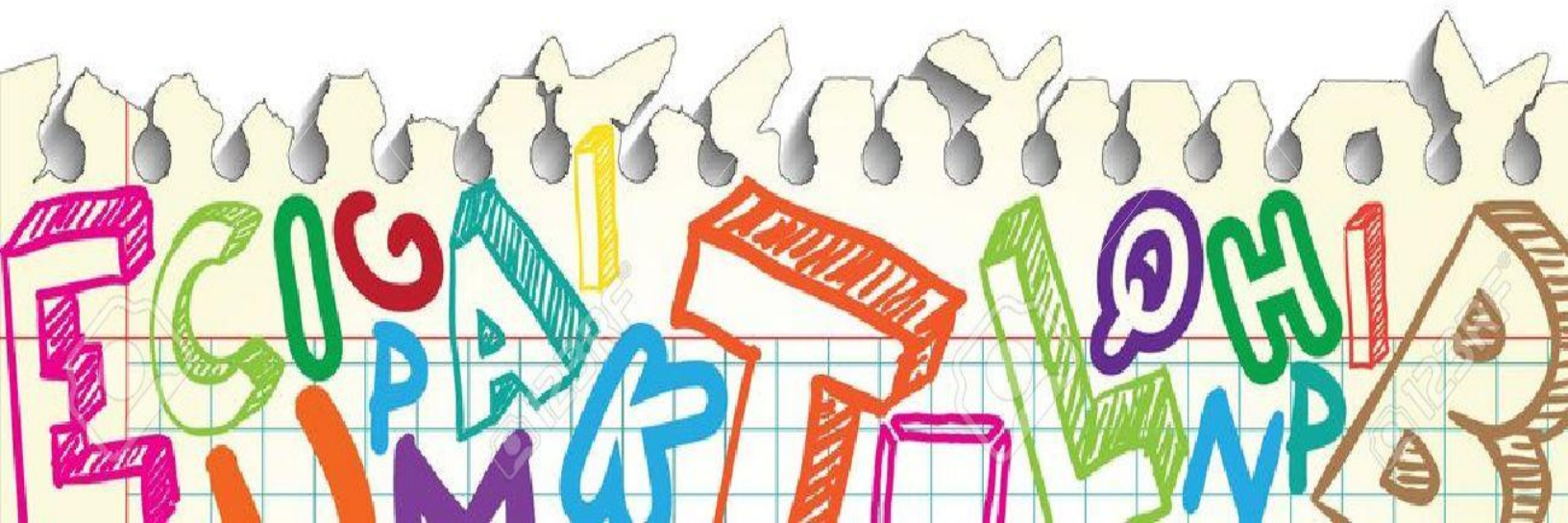
Check out this website! A game where your computer/iPad tries to guess what you're drawing.

"Mystery Picture"

Click on the link and follow the directions to create a picture through keyboarding.



Math Assignments





Choose the Unit

- Choose the best unit to use to measure the liquid volume. Write *cup*, *pint*, *quart*, or *gallon*.

1 a carton of heavy cream

- 2 a swimming pool

3 a flower vase

- 4 a wash tub

VOCABULARY

liquid volume

cup (c)

pint (pt)

quart (qt)

gallon (gal)

fluid ounce (fl oz)

What's the Error?

Dear Math Students,

Today I had to choose the best unit to use to measure how much water is needed to fill a kitchen sink. I said the best unit to use is cups. Is my answer correct? If not, please correct my work and tell me what I did wrong.

Your friend,
Puzzled Penguin



- Write an answer to Puzzled Penguin.

- Math Journal** Think of a container. Choose the unit you would use to measure its capacity. Draw the container and write the name of the unit you chose. Explain why you chose that unit.

Estimate Customary Units of Liquid Volume

Ring the better estimate.



2 cups
2 quarts



5 cups
5 gallons



1 pint
1 gallon



1 cup
1 pint



1 cup
1 gallon



30 cups
30 gallons

Solve.

- 13 Jamie makes a shopping list for a picnic with his four friends. He estimates that he'll need 5 quarts of lemonade for the group to drink. Do you think his estimate is reasonable? Explain.

Use Drawings to Solve Problems

Use the drawing to represent and solve the problem.

- 14 A painter mixed 5 pints of yellow and 3 pints of blue paint to make green paint. How many pints of green paint did he make?



- 15 Ryan bought a bottle of orange juice that had 16 fluid ounces. He poured 6 fluid ounces in a cup. How many fluid ounces are left in the bottle?



- 16 A restaurant made 8 quarts of tea. They used all the tea to fill pitchers that hold 2 quarts each. How many pitchers were filled with tea?



- 17 An ice cream machine makes 5 pints of ice cream in a batch. If 3 batches were made, how many pints of ice cream were made?



- 18 Fran has a water jug that holds 24 quarts of water. She fills it with a container that holds 4 quarts. How many times must she fill the 4-quart container and pour it into the jug to fill the jug with 24 quarts?



Solve Problems

Use the drawing to represent and solve the problem.

- 19 Shanna bought 8 juice boxes filled with her favorite juice. Each box holds 10 fluid ounces. How many fluid ounces of her favorite juice did Shanna buy?

- 20 Juana filled her punch bowl with 12 cups of punch. She gave some of her friends each a cup of punch. There are 7 cups of punch left in the bowl. How many cups did she give to friends?

- 21 Mrs. Chavez made 20 quarts of pickles. She made 4 quarts each day. How many days did it take her to make the pickles?

- 22 A mid-sized aquarium holds 25 gallons of water and a large aquarium holds 35 gallons of water. How many gallons of water is needed to fill both aquariums?

Show your work.



Check Understanding

Name the 5 units of liquid volume in this lesson from largest to smallest.



VOCABULARY

milliliter (mL)

liter (L)

- 1 Choose the **Appropriate Unit**
- 2 Choose the unit you would use to measure the liquid volume of each. Write **mL** or **L**.

- 1 a kitchen sink _____
- 2 a soup spoon _____
- 3 a teacup _____
- 4 a washing machine _____

Circle the better estimate.

- 5 a juice container 1 L 1 mL
- 6 a bowl of soup 500 L 500 mL

Use Drawings to Represent Problems

- 7 Use the drawing to represent and solve the problem.
- 7 There were 900 milliliters of water in a pitcher. Terri poured 500 milliliters of water into a bowl. How many milliliters of water are left in the pitcher?
- _____
- 8 Mr. Rojo put 6 liters of fuel into a gas can that can hold 10 liters. Then he added more liters to fill the can. How many liters of fuel did he add to the can?
- _____
- 9 Shelby needs to water each of her 3 plants with 200 milliliters of water. How many milliliters of water does she need?
- _____



Make Sense of Problems Involving Liquid Volume

Use the drawing to represent and solve the problem.

- 10 The deli sold 24 liters of juice in 3 days. The same amount was sold each day. How many liters of juice did the deli sell each day?



- 11 Tim has a bucket filled with 12 liters of water and a bucket filled with 20 liters of water. What is the total liquid volume of the buckets?



- 12 Sara made a smoothie and gave her friend 250 milliliters. There are 550 milliliters left. How many milliliters of smoothie did Sara make?



Solve. Use a drawing if you need to.

- 13 Diane has 12 liters of iced tea to divide equally among 4 tables. How many liters should she put at each table?
- 14 Mr. Valle filled 7 large jars with his famous barbecue sauce. Each jar holds 2 liters. How many liters of sauce did he have?

Check Understanding

- 15 Describe the relationship between a liter and a milliliter.


VOCABULARY

 weight
 pound (lb)
 ounce (oz)

- 1 Choose the **Appropriate Unit**
- 2 Choose the unit you would use to measure the **weight** of each. Write **pound** or **ounce**.

1 a backpack full of books

2 a couch

3 a peanut

4 a pencil

- 3 Circle the better estimate.

5 a student desk 3 lb 30 lb

6 a television 20 oz 20 lb

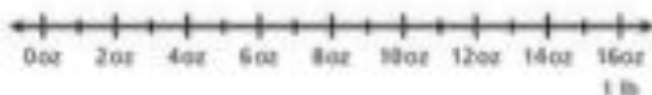
7 a hamster 5 oz 5 lb

8 a slice of cheese 1 lb 1 oz

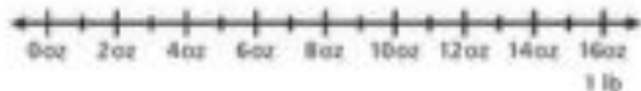
Use Drawings to Represent Problems

- 4 Use the drawing to represent and solve the problem.

- 9 Selma filled each of 3 bags with 5 ounces of her favorite nuts. How many ounces of nuts did she use altogether to fill the bags?



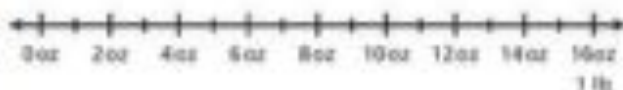
- 10 Two apples together weigh 16 ounces. If one apple weighs 9 ounces, how much does the other apple weigh?



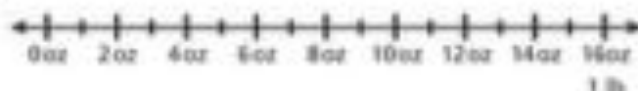
Use Drawings to Represent Problems (continued)

Use the drawing to represent and solve the problem.

- 11 Noah bought 16 ounces of turkey meat. If he uses 4 ounces to make a turkey patty, how many patties can he make?



- 12 A package of silver beads weighs 6 ounces and a package of wooden beads weighs 7 ounces more. How much does the package of wooden beads weigh?



Solve Word Problems

Solve. Use a drawing if you need to.

- 13 Ted has two dogs. Together they weigh 88 pounds. If one dog weighs 70 pounds, how much does the other dog weigh?

- 14 Emma has 20 ounces of popcorn kernels in a bag. If she pops 4 ounces of kernels at a time, how many times can Emma pop corn?

- 15 Susan mailed 3 packages. Each package weighed 20 ounces. What was the total weight of the 3 packages?

- 16 Bailey caught two fish. The smaller fish weighs 14 ounces and the larger fish weighs 6 ounces more. How much does the larger fish weigh?

Choose the Appropriate Unit



VOCABULARY

mass
gram (g)
kilogram (kg)

- Choose the unit you would use to measure the **mass** of each. Write **gram** or **kilogram**.

17 an elephant

18 a crayon

19 a stamp

20 a dog

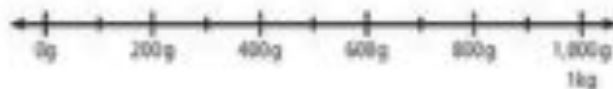
Circle the better estimate.

- | | | |
|-------------------------|-------|--------|
| 21 a pair of sunglasses | 150 g | 150 kg |
| 22 a horse | 6 kg | 600 kg |
| 23 a watermelon | 40 g | 4 kg |
| 24 a quarter | 500 g | 5 g |

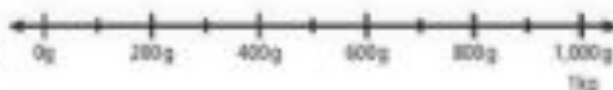
Use Drawings to Represent Problems

- Use the drawing to represent and solve the problem.

- 25 Zach wants to buy 900 grams of pumpkin seed. The scale shows 400 grams. How many more grams does he need?



- 26 Laura had 800 grams of fruit snacks. She put an equal amount into each of 4 containers. How many grams did she put in each container?



Solve Word Problems

Use the drawing to represent and solve the problem.



- 27 Nancy used 30 grams of strawberries and 45 grams of apples in her salad. How many grams of fruit altogether did she put in her salad?



- 28 Three people each donated a 20-kilogram bag of dog food to the animal shelter. How many kilograms of dog food was donated altogether?



Solve. Use a drawing if you need to.



- 29 A male leopard has a mass of 40 kilograms and a female leopard has a mass of 25 kilograms. How much greater is the mass of the male?
- 30 Jolie made 3 necklaces that have a total mass of 180 grams. If each necklace has the same mass, what is the mass of each necklace?

- 31 Dan bought 6 small bags of treats for his dog. Each bag has a mass of 40 grams. What is the total mass of all the bags?
- 32 Carrie has a dog and a cat. Together they have a mass of 21 kilograms. If the cat has a mass of 9 kilograms, what is the mass of Carrie's dog?

What's the Error?

32

Dear Math Students,

Today I had to solve this problem: Toby bought 3 bags of chips. Each bag of chips has a mass of 50 grams. What is the mass of all 3 bags of chips? Here is how I solved the problem.

$$50 + 3 = 53; 53 \text{ grams}$$

Is my answer correct? If not, please correct my work and tell me what I did wrong. How do you know my answer is wrong?

Your friend,
Puzzled Penguin



33 Write an answer to the Puzzled Penguin.

34

Solve. Show your work on a separate sheet of paper.

34

34 A tennis ball has a mass of 60 grams. A golf ball has a mass of 45 grams. What is the total mass of the two balls?

35

35 How many more grams is the mass of the tennis ball than the mass of the golf ball?

36

36 Gary bought 10 slices of ham at the deli. Each slice weighed 2 ounces. How many ounces of ham did Gary buy?

37

37 Sadie had 40 grams of sunflower seeds. She divided the seeds evenly among her 5 friends. How many grams did each friend get?

Choose the Better Estimate

Circle the better estimate.

38



90 grams
90 kilograms

39



100 pounds
10 ounces

40



3 ounces
3 pounds

41



10 kilograms
10 grams

42



100 kilograms
1,000 kilograms

43



1 pound
10 pounds

Solve.

- 44 Suzie explained that smaller objects weigh the least and larger objects weigh the most. Do you agree with Suzie?

Check Understanding

- 45 Explain the strategies you used to estimate mass in Problem 38.

*Show your work.***4** **Make Sense of Problems About Liquid Volume****5** **Solve.** Use drawings if you need to.

- 1** Fran works in a science lab. She poured 80 milliliters of liquid into each of 4 test tubes. How many milliliters of liquid did Fran pour into the test tubes altogether?
-

- 2** Nicholas wants to buy a bottle of shampoo. A large bottle has 375 milliliters of shampoo and a small bottle has 250 milliliters of shampoo. How many more milliliters of shampoo is in the larger bottle?
-

- 3** Allison used two containers of water to fill her aquarium. She used a container filled with 18 liters of water and another with 12 liters of water. What is the total liquid volume of the aquarium?
-


- 4** The coffee shop made 28 liters of hot chocolate. If the same amount is poured into 4 different containers, how many liters of hot chocolate are in each container?
-


- 5** A recipe calls for 50 milliliters of milk. Eva has a spoon that holds 10 milliliters. How many times will Eva need to fill the spoon to follow the recipe?
-


Make Sense of Problems About Masses


 Solve. Use drawings if you need to.


Show your work.



-  A bag of green beans has a mass of 335 grams. A bag of peas has a mass of 424 grams. What is the total mass of both bags?

-  An average sized chicken egg has a mass of 60 grams. What would be the total mass of a half dozen eggs?

-  A kangaroo and her joey together have a mass of 75 kilograms. If the mother kangaroo has a mass of 69 kilograms, what is the mass of the joey?

-  Liam and 2 of his friends have backpacks. The backpacks have masses of 6 kilograms, 4 kilograms, and 5 kilograms. What is the total mass of the 3 backpacks?

-  Graham bought 4 bags of sunflower seeds. Each bag has 60 grams of seeds. Luke bought 3 bags of pumpkin seeds. Each bag has 80 grams of seeds. Who bought more grams of seeds, Graham or Luke? Explain.

-   **Check Understanding**
Write and solve an equation for Problem 8.

Describe Triangles by Types of Angles

VOCABULARY
triangle

- 1 **Triangles** can be described by the types of angles they have.

In these triangles, one angle is a right angle.



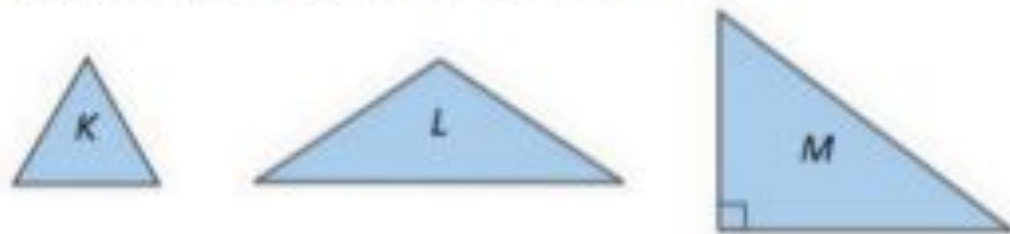
In these triangles, three angles are smaller than a right angle.



In these triangles, one angle is larger than a right angle.



Use Triangles *K*, *L*, and *M* for Exercises 4–6.



- 4 Which triangle has one right angle?

- 5 Which triangle has three angles smaller than a right angle?

- 6 Which triangle has one angle larger than a right angle?

Describe Triangles by the Number of Sides of Equal Length

You can also describe triangles by the number of sides that are of equal length.

In these triangles, three sides are equal in length.



In these triangles, two sides are equal in length.



In these triangles, no sides are equal in length.



Use Triangles *B*, *C*, and *D* for Exercises 7–9.



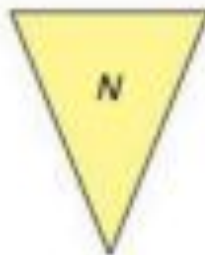
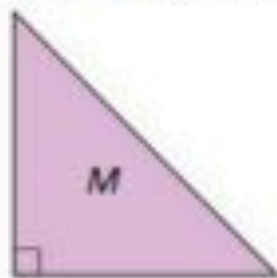
7 Which triangle has 3 sides of equal length?

8 Which triangle has 2 sides of equal length?

9 Which triangle has 0 sides of equal length?

4 Describe Triangles by Types of Angles and
5 Number of Sides of Equal Length

Use Triangles *M*, *N*, and *O* for 10–12. Write *M*, *N*, or *O*.
Then complete the sentences.

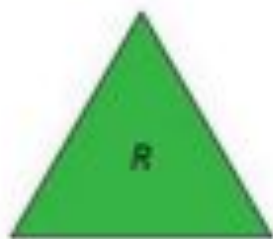
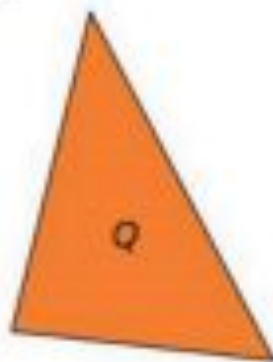


10 Triangle _____ has 1 angle larger than a right angle and has _____ sides of equal length.

11 Triangle _____ has 1 right angle and has _____ sides of equal length.

12 Triangle _____ has 3 angles smaller than a right angle and has _____ sides of equal length.

4 Use Triangles *P*, *Q*, and *R* for 13–15. Write *P*, *Q*, or *R*.
5 Then complete the sentences.



13 Triangle _____ has 3 angles smaller than a right angle and has _____ sides of equal length.

14 Triangle _____ has 3 angles smaller than a right angle and has _____ sides of equal length.

15 Triangle _____ has 1 angle larger than a right angle and has _____ sides of equal length.

Build Quadrilaterals from Triangles**VOCABULARY**
quadrilateral

A **quadrilateral** is a figure with 4 sides.

Cut out each pair of triangles. Use each pair to make as many different quadrilaterals as you can. You may flip a triangle and use the back. On a separate piece of paper, trace each quadrilateral that you make.

Triangles with One Angle Larger Than a Right Angle



Triangles with Three Angles Smaller Than a Right Angle



Triangles with One Right Angle



Ⓢ Ⓢ Polygons

A **polygon** is a flat, closed figure made up of line segments that do not cross each other.

Ⓢ VOCABULARY

polygon
concave
convex

Circle the figures that are polygons.

16



17



18



19



20



21



22



23



- Ⓢ A figure can be **concave** or **convex**. In concave polygons, there exists a line segment with endpoints inside the polygon and a point on the line segment that is outside the polygon. A convex figure has no such line segment.



concave



convex

- Ⓢ Which figures are convex and which are concave?

24



25



26



27



4 Name Polygons

- 4 Polygons are named according to how many sides they have.

3 sides—triangle

4 sides—quadrilateral

5 sides—**pentagon**

6 sides—**hexagon**

8 sides—**octagon**

10 sides—**decagon**

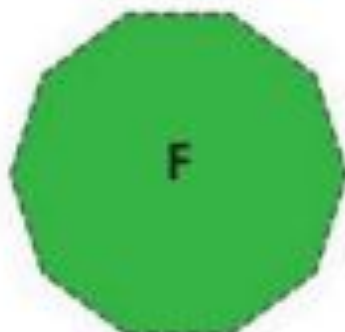
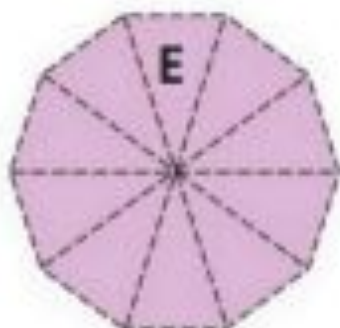
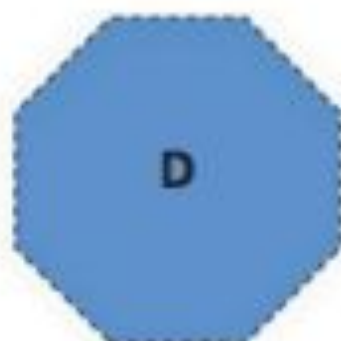
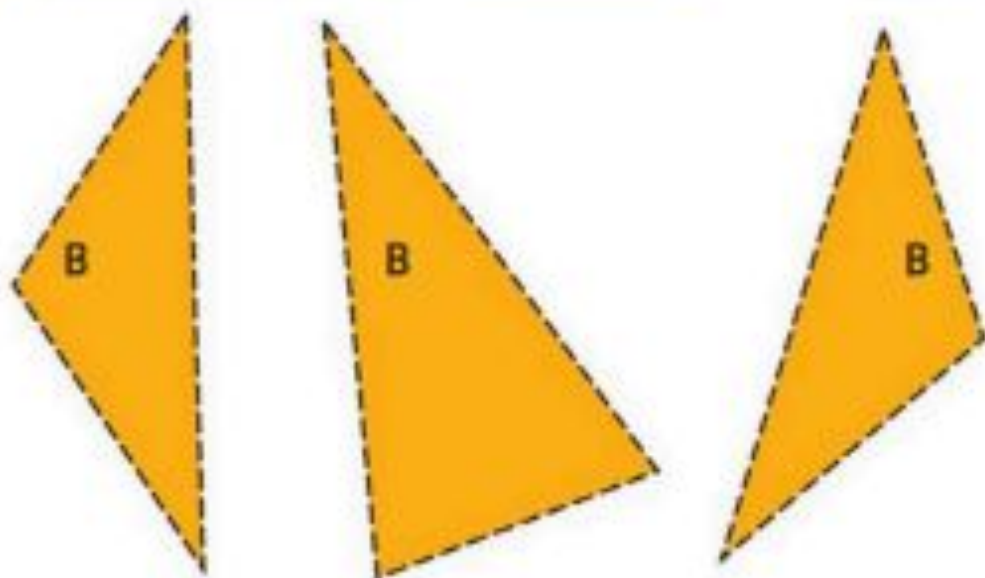
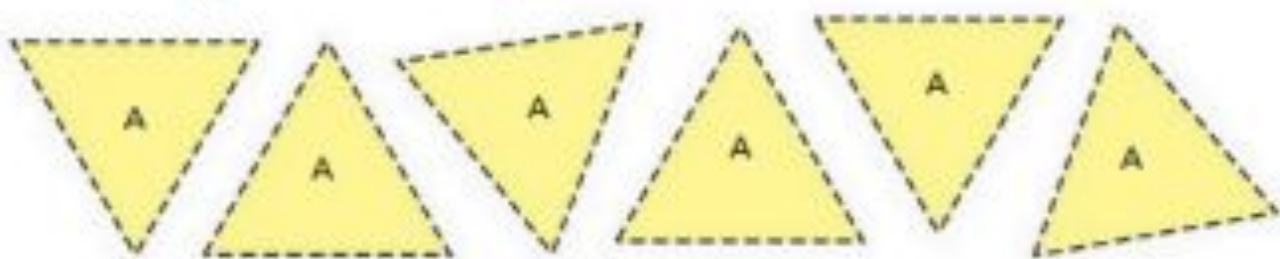
Name each figure.



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4 Check Understanding

- ✓ Draw and describe three different triangles.

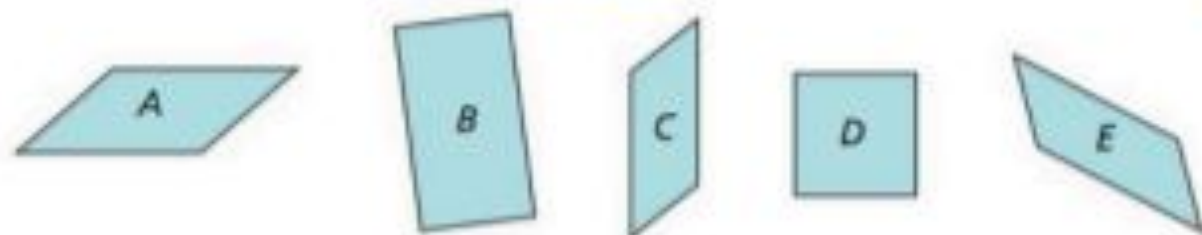
Build Polygons from Triangles



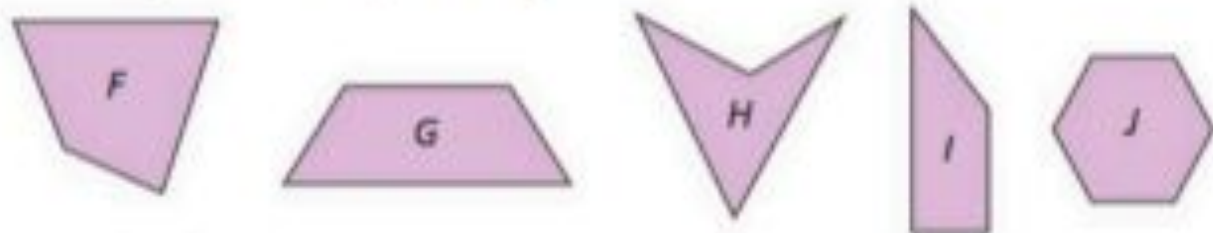
VOCABULARY
parallelogram

4 Describe Parallelograms

All of these figures are **parallelograms**.



These figures are not parallelograms.



Complete the sentence.

- 1 A parallelogram is a quadrilateral with _____

5 Measure Sides of Parallelograms

For each parallelogram, measure the sides to the nearest centimeter and label them with their lengths.



- 5 Look at the lengths of the sides. What patterns do you notice? _____

4 Describe Rectangles

- 5 All of these figures are **rectangles**.



VOCABULARY

rectangle
square
rhombus

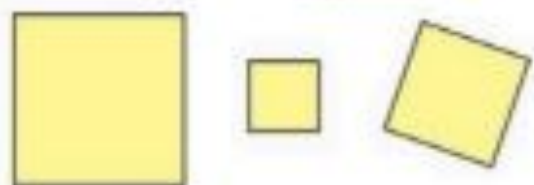
Adel said, "Rectangles are special kinds of parallelograms."

Complete the sentence.

- 6 A rectangle is a parallelogram with _____

4 Explore Squares and Rhombuses

- 5 These figures are **squares**.



- 6 These figures are **rhombuses**.



Takeshi said, "Squares are special kinds of rectangles."

Cora said, "Rhombuses are special kinds of parallelograms."

Complete the sentence.

- 7 A square is a rectangle with _____

- 8 A rhombus is a parallelogram with _____

Describe Quadrilaterals

Use as many words below as possible to describe each figure.

quadrilateral

parallelogram

rectangle

square









Describe Trapezoids

The quadrilaterals below are **trapezoid**.

VOCABULARY
trapezoid
opposite sides



Write what you know about the **opposite sides** of a trapezoid.

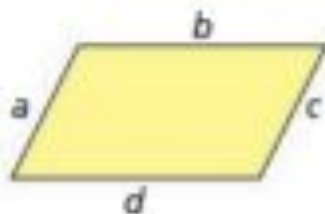
Circle the quadrilaterals that are trapezoids.



Explain why the figures you did not circle are not trapezoids.

Check Understanding
Draw a quadrilateral and describe it.

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**Draw Parallelograms**

- 1 Write what you know about the opposite sides of a parallelogram.

- 2 Draw three different parallelograms.

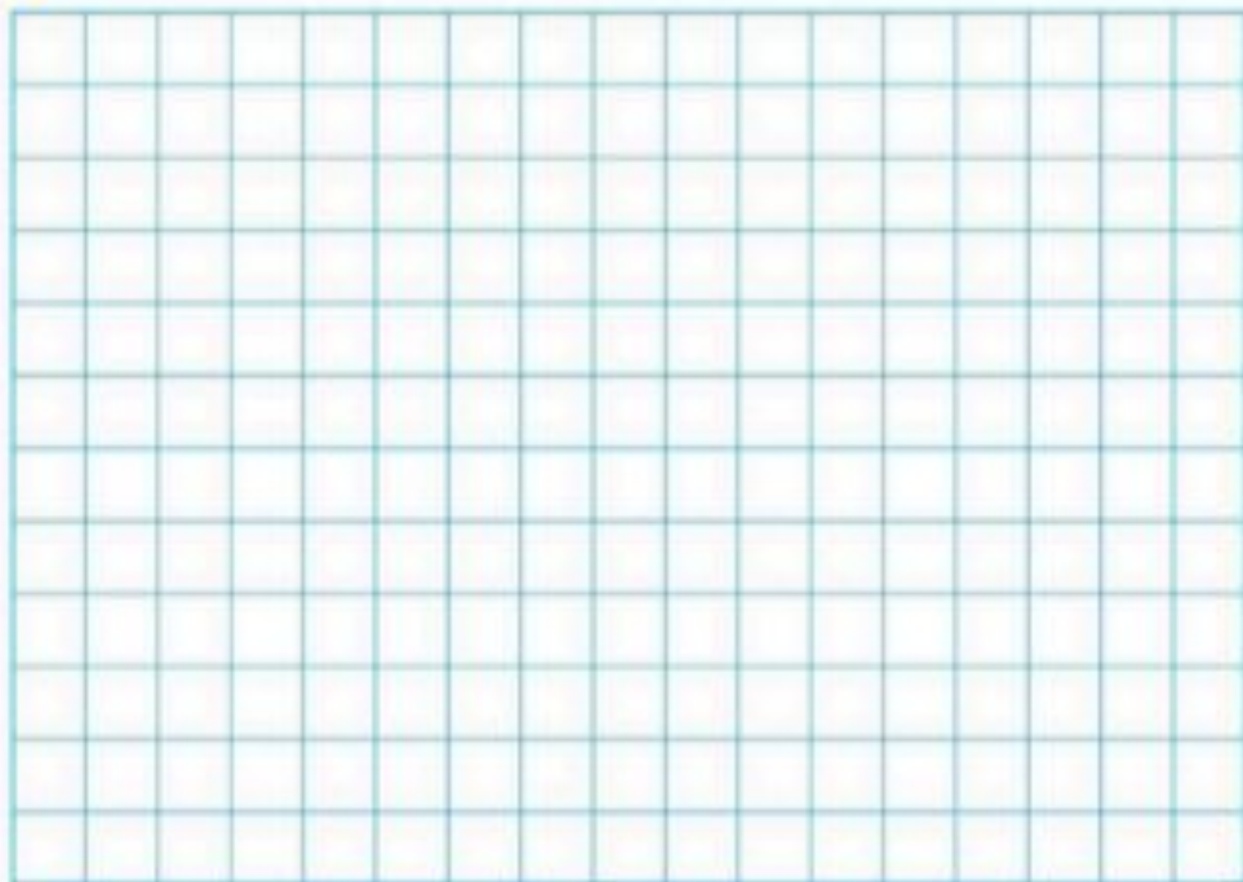


2
3 Draw Rectangles**VOCABULARY**
adjacent sides

- 4**
- Write everything you know about the opposite sides of a rectangle.

- 5**
- What do you know about the adjacent sides of a rectangle?

- 6**
- Draw three different rectangles.



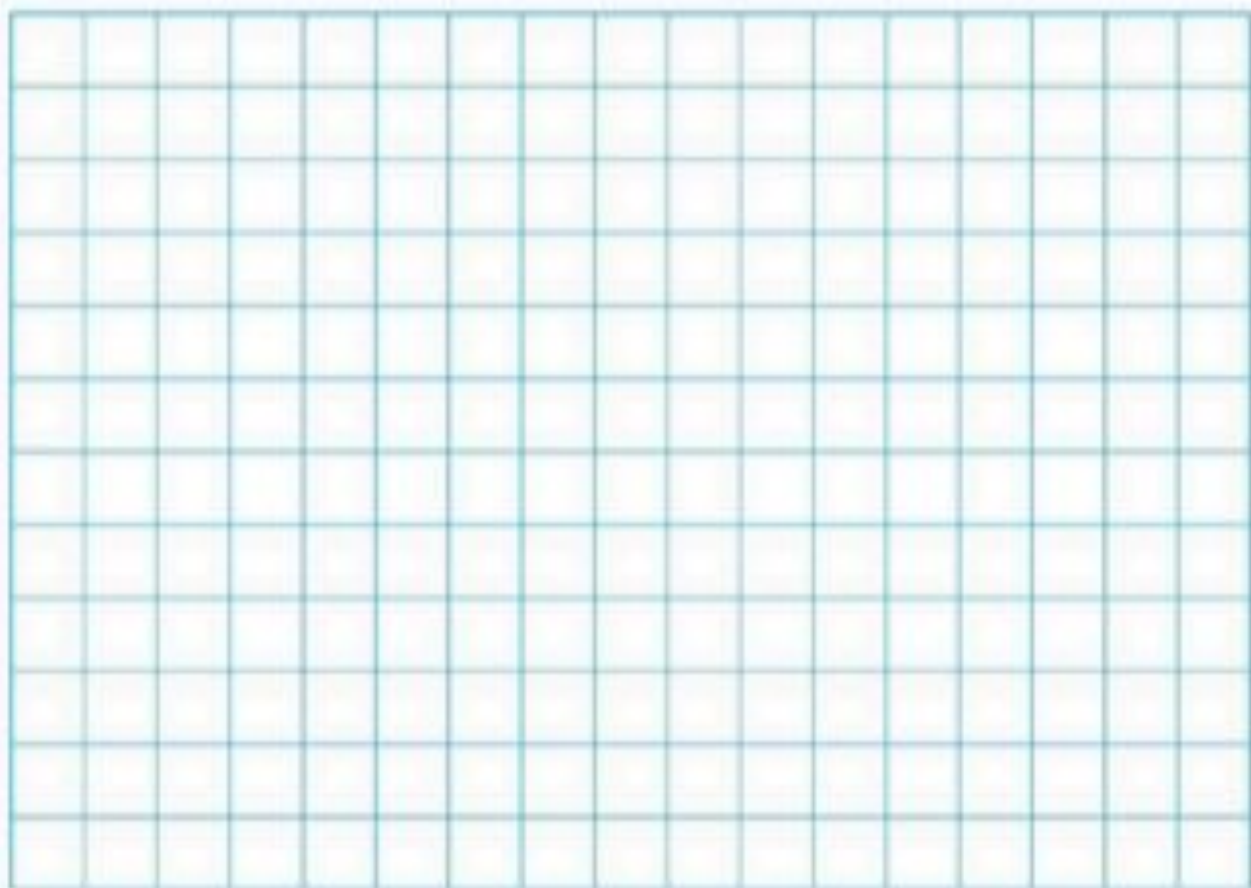
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10 **6** Draw Squares and Rhombuses

6 Write everything you know about squares.

7 Write all you know about rhombuses.

8 Draw two different squares and two different rhombuses.



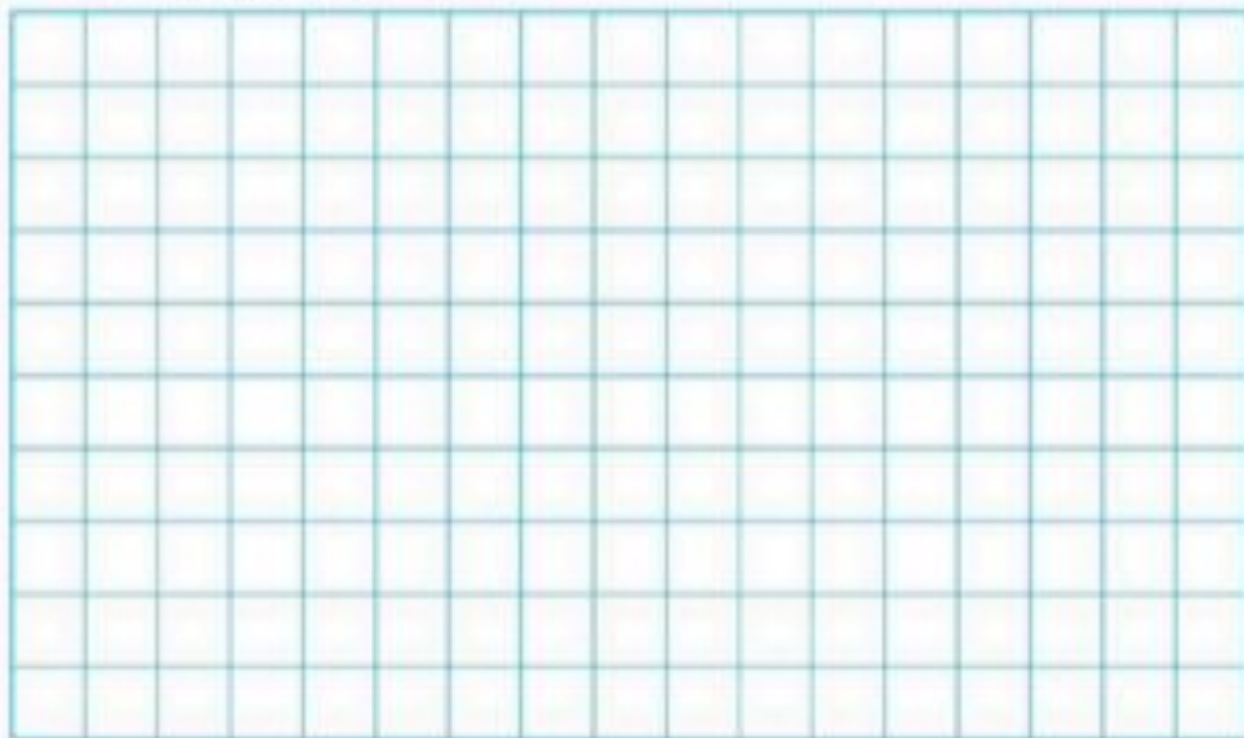
- Draw Quadrilaterals That Are Not Squares, Rectangles, or Rhombuses**



1 What is a quadrilateral?

- 10** Name all the quadrilaterals that have at least one pair of parallel sides.

- 11** Draw three different quadrilaterals that are not squares, rectangles, or rhombuses.



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- Check Understanding**
 Draw a quadrilateral that is not a parallelogram.



☺ ☺ Name Quadrilaterals



Place a check mark beside every name that describes the figure.



- quadrilateral
- parallelogram
- rhombus
- rectangle
- square



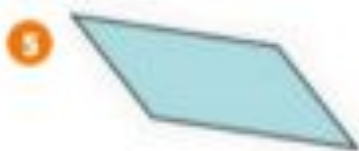
- quadrilateral
- parallelogram
- rhombus
- rectangle
- trapezoid



- quadrilateral
- parallelogram
- rhombus
- rectangle
- square



- quadrilateral
- parallelogram
- rhombus
- rectangle
- square



- quadrilateral
- parallelogram
- rhombus
- rectangle
- square



- quadrilateral
- parallelogram
- rhombus
- rectangle
- square



- quadrilateral
- parallelogram
- rhombus
- rectangle
- square



- quadrilateral
- parallelogram
- rhombus
- rectangle
- square



- quadrilateral
- parallelogram
- rhombus
- rectangle
- square

4 Analyze Quadrilaterals

- 10 For each figure, put Xs under the descriptions that are always true.

	Four sides	Both pairs of opposite sides parallel	Both pairs of opposite sides the same length	Four right angles	All sides the same length
Quadrilateral					
Trapezoid					
Parallelogram					
Rhombus					
Rectangle					
Square					

- 11 Use the finished chart above to complete each statement.

11 Parallelograms have all the features of quadrilaterals *plus*

12 Rectangles have all the features of parallelograms *plus*

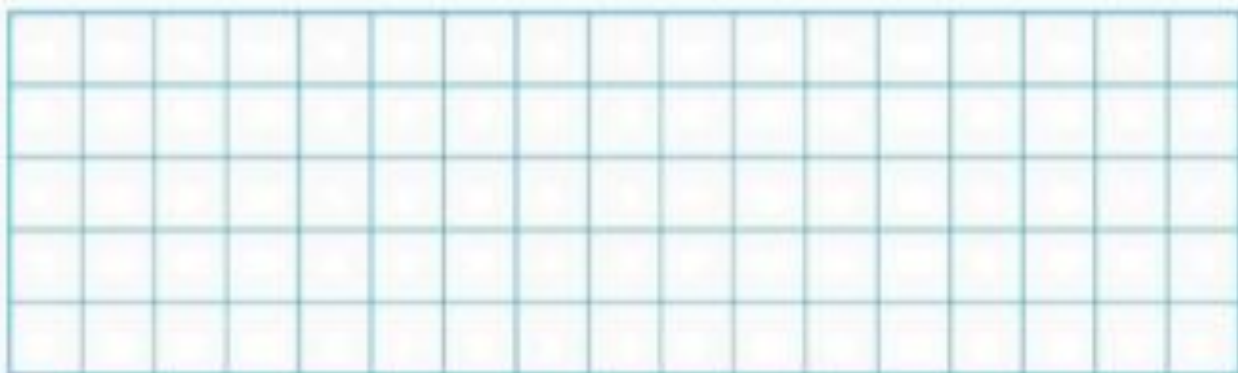
13 Squares have all the features of quadrilaterals *plus*

14 Rhombuses have all the features of quadrilaterals *plus*

14 Draw Quadrilaterals from a Description

Draw each figure.

- 15** Draw a quadrilateral that is not a parallelogram.
- 16** Draw a parallelogram that is not a rectangle.
- 17** Draw a rectangle that is not a square.

**15** What's the Error?

Dear Math Students,

Today I had to draw a quadrilateral with parallel sides that is not a rectangle, square, or rhombus.

This is my drawing.

Is my drawing correct?
If not, please help me
understand why it is wrong.

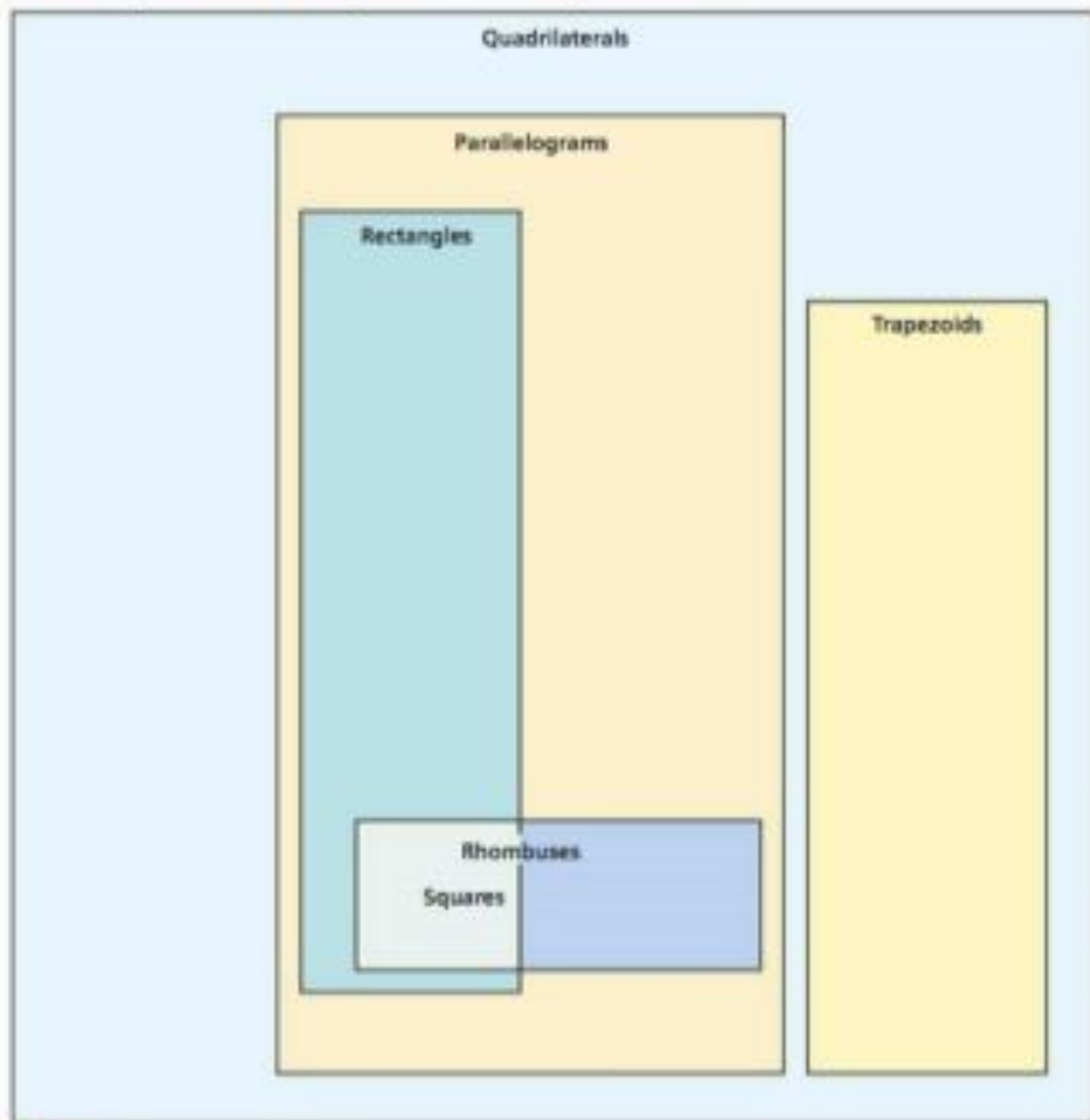


Your friend,
Puzzled Penguin

- 16**
- Write an answer to Puzzled Penguin.

Sort and Classify Quadrilaterals

Use the category diagram to sort the figures you cut out from Student Activity Book page 439A. Write the letter of the figure in the diagram to record your work.



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Check Understanding

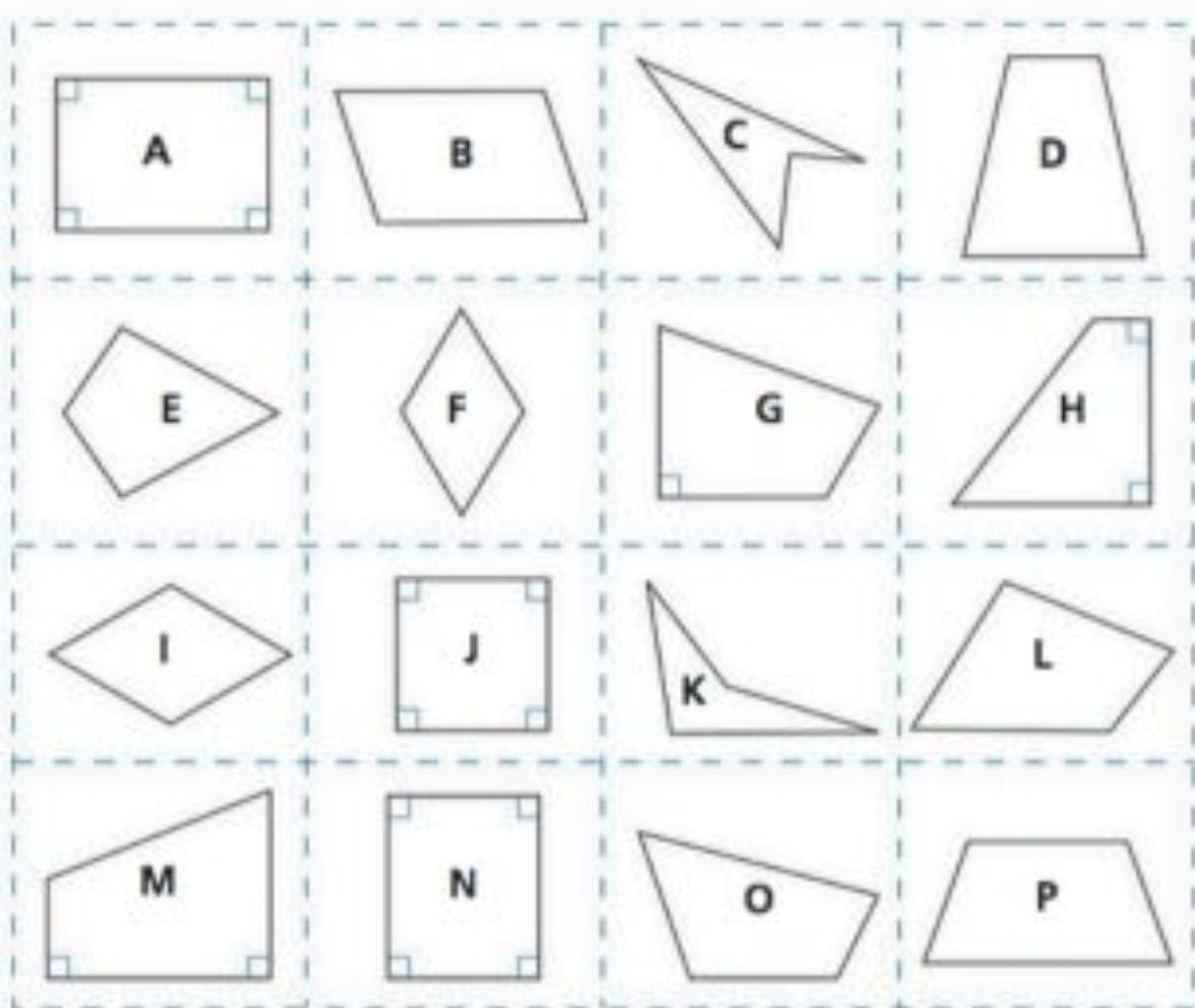


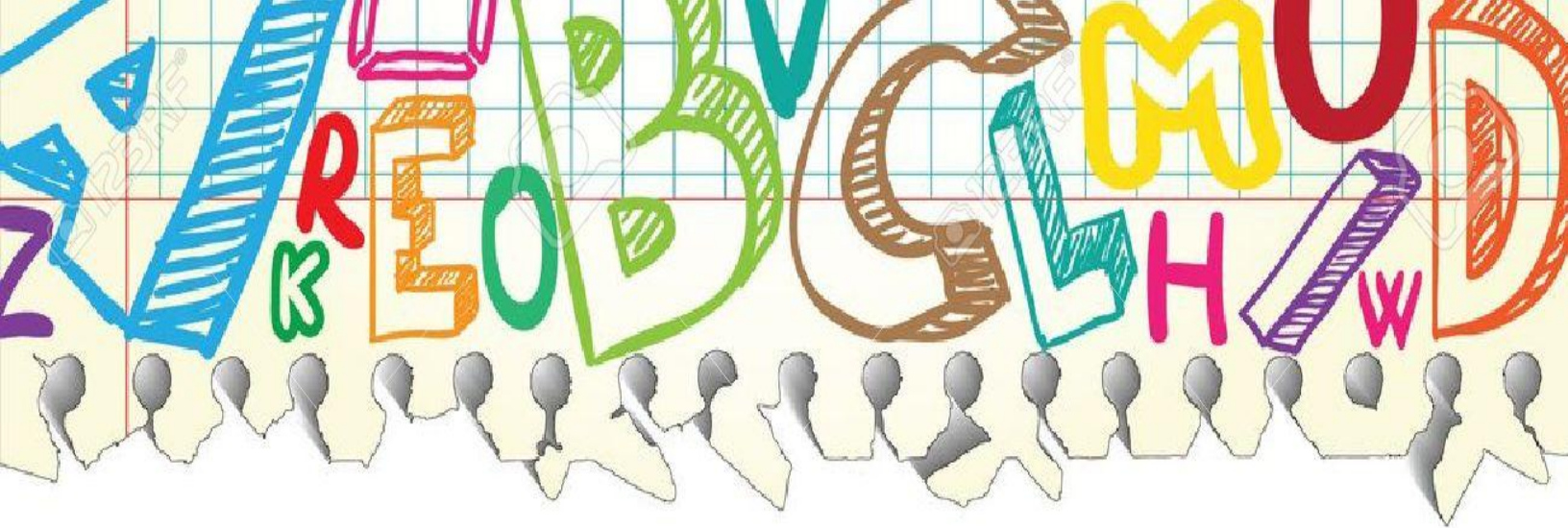
Complete the sentence. A rhombus is always a _____ and a _____.



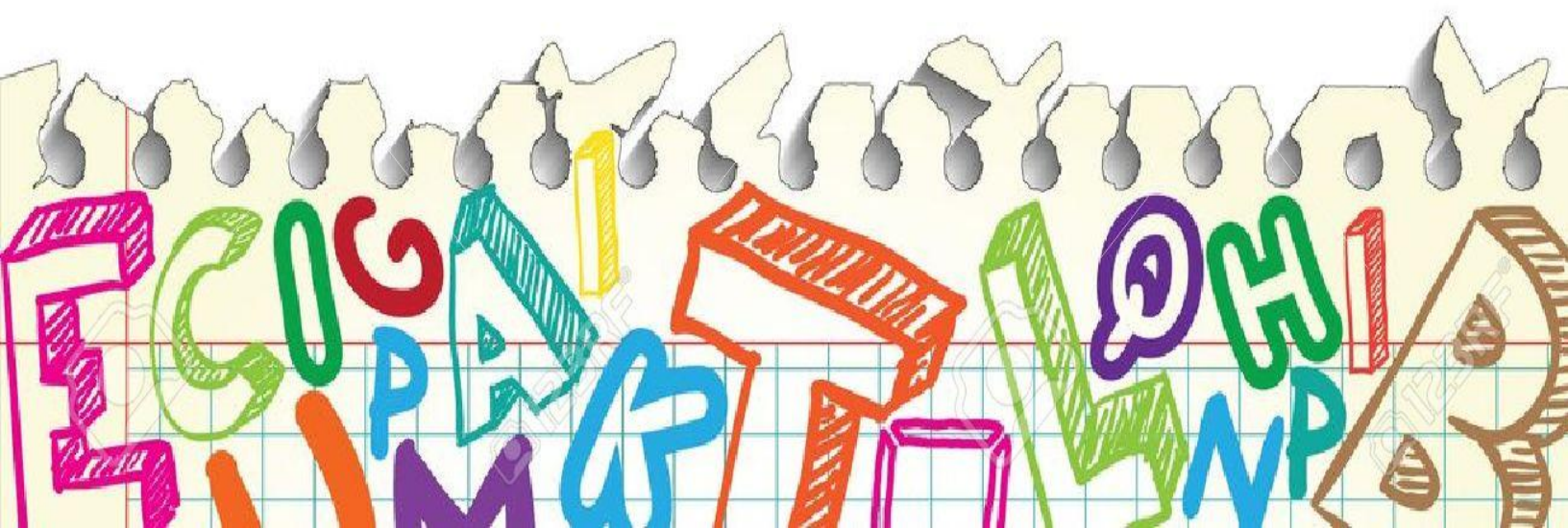
🔗 Quadrilaterals for Sorting

Cut along the dashed lines.



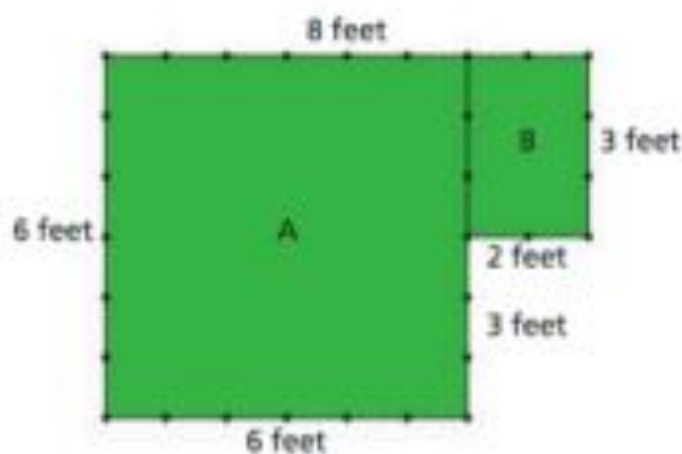


Optional Math Activities





Area and Gardening



Look at the drawing of Yoakim's garden.
It is divided into two quadrilaterals.

- 1 What is the perimeter of part A? _____

What is the perimeter of part B? _____
- 2 What is the perimeter of the combined garden? _____
- 3 Will Yoakim need more fencing to enclose the two parts of his garden separately or to enclose the combined garden? _____

- 4 What is the area of part A? _____

What is the area of part B? _____
- 5 What is the area of the combined garden?

- 6 How does the total area of the two parts of the garden compare with the area of the combined garden?

Design a Garden

Use the dot paper below to draw a different garden that has the same perimeter as Yoakim's combined garden. Beside it, draw a different garden that has the same area as Yoakim's garden.



1 ft



What is the area of your garden that has the same perimeter as Yoakim's garden?

What is the perimeter of your garden that has the same area as Yoakim's garden?

Use the centimeter dot paper at the right to draw separate areas within a garden where you would plant corn, beans, and tomatoes.

The area for corn is 12 square feet.

The area for beans is 25 square feet.

The area for tomatoes is 20 square feet.

