

## ASCEND SUMMER HOMEWORK RISING $5^{TH}$ GRADE

Dear Families,

In this packet, you will find reading, math, and science activities for your scholar to complete over the summer. These activities are meant to challenge your scholar's thinking, while also being fun and engaging. Please feel free to complete this work along with your scholar, asking questions and taking part in conversation as you go. This will make their experience even richer!

Research shows that kids who read over the summer are much more prepared for the next school year than those who do not. For this reason, in addition to our selected book, your scholar should read 2-3 other age-appropriate chapter books over the summer. On pages 4-6, you will find a reading log for your scholar to track their summer reading and for you to certify this with your signature. Your scholar will be better off if they complete these chapters and activities over time throughout the summer—switching back and forth between reading, math, and science—than if they try cramming them into the last few days.

Thank you for supporting your scholar's learning. Together, we can push them to new heights!

Happy summer!

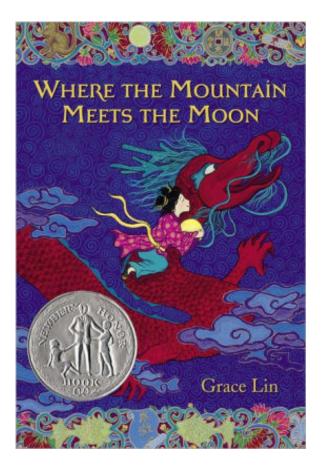
Ascend Public Charter Schools



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### RISING 5<sup>TH</sup> GRADE READING



We know that kids love this book, so we have chosen it with the hope that it will encourage your love of reading this summer! As you read *Where the Mountain Meets the Moon*, take notes about major character insights and plot elements, as you have all year, and complete the chapter-by-chapter questions and activities in this packet.

In addition to Where the Mountain Meets the Moon, we hope you will choose at least a few other books to read over the summer. Please track your summer reading on the reading log that is on the following pages and ask a family member to sign.

### RISING 5<sup>TH</sup> GRADE SUMMER READING LOG

Book Title	Date	Minutes Read	Signature
Example: Charlie and the Chocolate Factory	July 18	30	Ms. Holmes

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Example: Charlie and the Chocolate Factory	July 18	30	Ms. Holmes

### RISING 5<sup>TH</sup> GRADE Where the Mountain Meets the Moon READING LOG

Book Title	Chapter	Date	Signature
Where the Mountain Meets the Moon	Chapter 1-2		
Where the Mountain Meets the Moon	Chapter 3-5		
Where the Mountain Meets the Moon	Chapter 6-9		
Where the Mountain Meets the Moon	Chapter 10-11		
Where the Mountain Meets the Moon	Chapter 12-14		
Where the Mountain Meets the Moon	Chapter 15-16		
Where the Mountain Meets the Moon	Chapter 17-19		
Where the Mountain Meets the Moon	Chapter 20-23		
Where the Mountain Meets the Moon	Chapter 24-26		
Where the Mountain Meets the Moon	Chapter 27-29		
Where the Mountain Meets the Moon	Chapter 30-34		
Where the Mountain Meets the Moon	Chapter 35-38		
Where the Mountain Meets the Moon	Chapter 39-41		
Where the Mountain Meets the Moon	Chapter 42-44		
Where the Mountain Meets the Moon	Chapter 45-48		

Chapter 1-2
Use three words to describe Minli based on the text. Think carefully and review the text if you need to.
Choose one of the words above. In 2-4 sentences, explain why you think it is a good word to describe Minli based on what she thinks, says, and does throughout the story.
Draw the Village of Fruitless Mountain based on details from the text.

### Chapter 3-5

Authors often use characters with different <b>perspectives</b> (their points of view) to show different opinions about the same situation. In <i>Where the Mountain Meets the Moon,</i> Ma
and Ba have different perspectives on stories. Explain how their perspectives are different. Provide two pieces of evidence from the book to support your response. You response should be 4-6 sentences long.
Are your parents' thoughts on stories more like Ma's or Ba's?
Explain why in 2-3 sentences.
Explain why in 2-3 sentences.

### Chapter 6-9

Grace Lin, the author of this book, uses lots of **figurative language** to help the reader imagine the setting and characters. Here's a reminder of some important types of figurative language with examples from these chapters.

Type of figurative language	Definition	Example
Metaphor	A comparison between two unlike things that does <b>not</b> use "like" or "as"	"The fallen leaves made a soft carpet for her feet" (p. 34)
Simile	A comparison between two unlike things that uses "like" or "as"	"Ma made a noise like a shrieking cat" (p. 37)
Imagery	Descriptions that help the reader picture the scene	"the night birds flew into the sky as she passed. Only when the sky lightened to gray" (p. 34)

Now it's your turn to find more examples of figurative language in this chapter. When you find an example of each type of figurative language, write the sentence in the box below and then draw a picture that shows how the language helps you better imagine the setting or characters.

Туре	Example of this from the text	Picture
Metaphor		
Simile		
Imagery		

### Chapter 10-11

In these chapters, Minli meets her new friend, Dragon. chapters to write a <b>biography</b> (the story of his life) ab about his birth and his life on the lines below and draw	out Dragon. Include information

Chapter 12-14			
		19 in the Book of Fortune. If y Why or why not? Respond in 2-	
		trick below using a 3-box comi awings, dialogue bubbles, and	
(1)	(2)	(3)	
	about the monkeys' perso 2 details from the text. Use	nalities that they could be trickers 5-7 sentences.	ed this way?

Chapter 15-16
On the Paper of Happiness there is only one word written over and over. What do you think that one word is?
Explain why using 2-3 sentences.
A <b>myth</b> is a traditional story that is passed down through generations. Many of the storie in this book are myths. Many families, countries, and cultures have their own myths. The Story of the Dragon Gate in this chapter is one such myth that has been passed down through the goldfish over generations. Here are some others you may be familiar with:
<ul> <li>Greek and Roman myths: such as the myth of The Trojan Horse that led to the destruction of Troy</li> <li>Creation myths: explanations for how the world was created—many religions have their own</li> <li>Origin stories: myths that explain why something is the way that is, such as why chameleons change colors</li> </ul>
Do some research by reading another myth, either online or at your local library. You may also ask your family members if they know of any famous or family myths! Then, write a brief summary (3-5 sentences) of the myth you read or heard below.
Name of the Myth: This is a myth from:
My Summary:

### Chapter 17-19

Authors often use <b>contrast</b> , or differences, to show something important about the characters to the reader. The Buffalo Boy and Minli are a good example of the use contrast. Think about their differences. What does Minli have that the Buffalo Boy doe not? What does the Buffalo Boy have that Minli does not? Use at least 2 details from the text for each character. Your response should be 5-7 sentences.

### Chapter 20-23

Authors give us subtle (small) clues throughout the story that characters are beginning to
change. Readers can pay attention to a character's <b>actions</b> to find these clues. Find three
clues that the author gives the reader in Chapter 20 to show that Ma is beginning to
change. Write the three clues you found below:

1.	
2.	
3.	

Draw a 6-box comic strip that explains how and why the king tricks the peach seller and what Minli discovers. Think about what happens first, second, etc. Use drawings, dialogue bubbles, and labels.

(1)	(2)	(3)
( )	\ <del>-</del> /	
//\	/ <b>C</b> \	/Z\
(4)	(5)	(6)
(4)	(5)	(6)
(4)	(5)	(6)
(4)	(5)	(6)
(4)	(5)	(6)
(4)	(5)	(6)
(4)	(5)	(6)
(4)	(5)	(6)
(4)	(5)	(6)
(4)	(5)	(6)
(4)	(5)	(6)

What is the "borrowed line" that Minli finds?

Chapter 24-26		
What is the "borrowed line" that Dragon finds?		
Which of the borrowed lines do you think is the real one? Explain why using 2-3 sentences.		
Ba has had many thoughts about what the word on the Paper of Happiness could have been. Now he thinks it is "faith." Why does he think this? Explain why using 3-4 sentences.		
What do you think the word on the Paper of Happiness is?		

### Chapter 27-29

Remember that authors give us subtle (small) clues throughout the story that characters
are beginning to change. Readers can pay attention to a character's internal thoughts
or what they think but do not say out loud, to show that they are changing. Find three
clues that the author gives the reader in Chapter 27 to show that Minli is beginning to
change. Write the three clues you found below:

1		
2		
Why do yo your answe	ou think that Minli is beginning to change? Use 2 details fror ver. Your response should be 3-5 sentences.	n the text to suppor
Draw the t	tiger using details from the text:	

### Chapter 30-34

How do the twins trick the tiger? Draw their trick in the box below using a 3-box comic strip. Base your drawing on details from the text. Use drawings, dialogue bubbles, and labels.

(1)	(2)	(3)
What does it show about why using 2 details from		uld be tricked this way? Explain

### Chapter 35-38

how did it get its name? Use at least 3 details from the text and 5-7 sentences.
After meeting the villagers from where the secret of happiness comes from, what do you think was written on the Paper of Happiness?
Why do you think this? Base your answer on details from the text.

### Chapter 39-41

An **origin story** is a type of legend that explains why something is the way that it is or why something happens. The story of the Dragon's Pearl is an example of an origin story, because it explains how the moon got in the sky.

Think of something that you have always wondered about, such as why snakes have no legs, or why we have 5 toes on each foot. Then, write an origin story to explain how this came to happen. Remember that an origin story is based in your imagination, not science, and explains why something is the way that it is. Write your story in 10 lines below.

Title:		

### Chapter 42-44

Many stories have a <b>moral</b> , or a lesson that the reader should learn from them about how to live their life.
What is the moral of Wu Kang's story? Explain using 2 details from the text and 5-7 sentences.
Minli can only ask the Old Man in the Moon one question. What question does she ask, and what does this reveal about how she has changed? Use details from the text and 3-5 sentences.
If you had the chance to ask the Old Man in the Moon one question, what would you ask?

### Chapter 45-48

When the Goldfish Man returns to the village, he realizes that much has changed. What were the village and its residents like before, and what are they like now? Think about setting, characters, attitudes, etc. Find at least 5 differences to write below.

What was the village like at the beginning of the text?	What is the village like at the end of the text?
Who or what is responsible for this change?	Respond in 3-5 sentences.

This past year your teacher talked a lot about lessons that we can learn from reading stories. These lessons can be thought of as the big ideas, or **themes**, that the author wants the reader to think deeply about. For example, you might walk away from a story and realize the author is trying to teach you, "Even when life is challenging, it is important to push forward and keep trying." Or the author might be trying to teach you, "Imagination and curiosity are important if we want to make a difference in the world."

There are many different lessons we can learn from reading stories, but we can't just make them up from scratch! We have to think about the details in the story—the characters, what they say and do, the relationships they build, and all the other things that happen.

What do you think Grace Lin, the author of *Where the Mountain Meets the Moon*, is trying to teach you through this story? What does she want you to learn from reading it? In your response, make sure you provide some reasons and evidence for the lesson you think Lin is teaching you, and explain your thinking carefully so your fifth-grade teacher knows why you said what you said.

Ose 7-10 sentences in your response. De specific and make a strong argument.

Did you like this story? Would you recommend it to a sibling, classmate, or friend? Why or why not? On the following pages, you will write a short book report, including details about the story and your own opinion about it. You will need to review portions of the book to remember some of the specifics.

### **Book Report**

### RISING 5TH GRADE SUMMER HOMEWORK

- <u></u>	
How many STARS would you give this book?  What was your favorite part about the story? U	
Would you recommend this book?	Why or why not?

### RISING 5<sup>TH</sup> GRADE MATH

### Skills to master before entering fifth grade:

- Memorizing multiplication facts within 100
- · Adding and subtracting multi-digit numbers
- Multiplying 2 x 2 digit numbers (ex. 45 x 93) and 4 x 1 digit numbers (ex. 2783 x 5)
- Dividing 4 digit numbers by 1 digit numbers (ex. 8369 ÷ 5)
- Find all factors of any number between 1-100 (ex. 12: 1, 2, 3, 4, 6, 12)
- Identify and create equivalent fractions (ex. 2/3 = 4/6)
- Read and write decimals to the tenths place (ex. 0.7 as "seven tenths") and to the hundredths place (ex. 0.45 as "forty five hundredths")

### Activities to do this summer to prepare for fifth grade:

- Math flashcards (see next page for instructions)
- Math games (included in this packet)
- Math practice sheets (included in this packet)

### Recommended materials

- 1 pack of 3 x 5" index cards
- 1 deck of playing cards (with jokers and face cards removed)
- 2 paper clips

### RISING 5TH GRADE MATH FACTS

Learning and practicing these basic math facts is the best way to get ready for fifth grade. You may have brought home a set of flashcards. If not, you can make your own!

Instructions: Each day, run through the flash cards. Make two piles: one for the facts you can recall automatically (in less than 3 seconds, without counting on fingers), and one for the facts you need to practice more. Run through this pile 2-3 more times. The next day, shuffle the piles and repeat. Practicing daily will ensure you are ready for fifth grade!

### **Multiplication within 100**

On the front of a 3 x 5" index card, write the fact without the answer.

On the back of each card, write the answer.

0	1	2	3	4	5
$0 \times 0 = 0$	$1 \times 0 = 0$	$2 \times 0 = 0$	$3 \times 0 = 0$	$4 \times 0 = 0$	$5 \times 0 = 0$
$0 \times 1 = 0$	$1 \times 1 = 1$	$2 \times 1 = 2$	3 x 1 = 3	4 x 1 = 4	5 x 1 = 5
$0 \times 2 = 0$	$1 \times 2 = 2$	$2 \times 2 = 4$	$3 \times 2 = 6$	$4 \times 2 = 8$	5 x 2 = 10
$0 \times 3 = 0$	$1 \times 3 = 3$	$2 \times 3 = 6$	$3 \times 3 = 9$	$4 \times 3 = 12$	5 x 3 = 15
$0 \times 4 = 0$	$1 \times 4 = 4$	$2 \times 4 = 8$	$3 \times 4 = 12$	$4 \times 4 = 16$	$5 \times 4 = 20$
$0 \times 5 = 0$	$1 \times 5 = 5$	$2 \times 5 = 10$	3 x 5 = 15	$4 \times 5 = 20$	5 x 5 = 25
$0 \times 6 = 0$	$1 \times 6 = 6$	$2 \times 6 = 12$	$3 \times 6 = 18$	$4 \times 6 = 24$	$5 \times 6 = 30$
$0 \times 7 = 0$	$1 \times 7 = 7$	$2 \times 7 = 14$	$3 \times 7 = 21$	$4 \times 7 = 28$	5 x 7 = 35
$0 \times 8 = 0$	$1 \times 8 = 8$	$2 \times 8 = 16$	$3 \times 8 = 24$	$4 \times 8 = 32$	$5 \times 8 = 40$
$0 \times 9 = 0$	$1 \times 9 = 9$	$2 \times 9 = 18$	$3 \times 9 = 27$	$4 \times 9 = 36$	5 x 9 = 45
6	7	8	9	10	
<b>6</b> 6 x 0 = 0	<b>7</b> 7 x 0 = 0	<b>8</b> 8 x 0 = 0	<b>9</b> 9 x 0 = 0	10 10 x 0 = 0	
$6 \times 0 = 0$	$7 \times 0 = 0$	$8 \times 0 = 0$	9 x 0 = 0	10 x 0 = 0	
6 x 0 = 0 6 x 1 = 6	7 x 0 = 0 7 x 1 = 7	8 x 0 = 0 8 x 1 = 8	9 x 0 = 0 9 x 1 = 9	10 x 0 = 0 10 x 1 = 10	
6 x 0 = 0 6 x 1 = 6 6 x 2 = 12	7 x 0 = 0 7 x 1 = 7 7 x 2 = 14	8 x 0 = 0 8 x 1 = 8 8 x 2 = 16	9 x 0 = 0 9 x 1 = 9 9 x 2 = 18	10 x 0 = 0 10 x 1 = 10 10 x 2 = 20	
6 x 0 = 0 6 x 1 = 6 6 x 2 = 12 6 x 3 = 18	7 x 0 = 0 7 x 1 = 7 7 x 2 = 14 7 x 3 = 21	8 x 0 = 0 8 x 1 = 8 8 x 2 = 16 8 x 3 = 24	9 x 0 = 0 9 x 1 = 9 9 x 2 = 18 9 x 3 = 27	10 x 0 = 0 10 x 1 = 10 10 x 2 = 20 10 x 3 = 30	
6 x 0 = 0 6 x 1 = 6 6 x 2 = 12 6 x 3 = 18 6 x 4 = 24	7 x 0 = 0 7 x 1 = 7 7 x 2 = 14 7 x 3 = 21 7 x 4 = 28	8 x 0 = 0 8 x 1 = 8 8 x 2 = 16 8 x 3 = 24 8 x 4 = 32	9 x 0 = 0 9 x 1 = 9 9 x 2 = 18 9 x 3 = 27 9 x 4 = 36	10 x 0 = 0 10 x 1 = 10 10 x 2 = 20 10 x 3 = 30 10 x 4 = 40	
6 x 0 = 0 6 x 1 = 6 6 x 2 = 12 6 x 3 = 18 6 x 4 = 24 6 x 5 = 30 6 x 6 = 36 6 x 7 = 42	7 x 0 = 0 7 x 1 = 7 7 x 2 = 14 7 x 3 = 21 7 x 4 = 28 7 x 5 = 35	8 x 0 = 0 8 x 1 = 8 8 x 2 = 16 8 x 3 = 24 8 x 4 = 32 8 x 5 = 40	9 x 0 = 0 9 x 1 = 9 9 x 2 = 18 9 x 3 = 27 9 x 4 = 36 9 x 5 = 45	10 x 0 = 0 10 x 1 = 10 10 x 2 = 20 10 x 3 = 30 10 x 4 = 40 10 x 5 = 50	
6 x 0 = 0 6 x 1 = 6 6 x 2 = 12 6 x 3 = 18 6 x 4 = 24 6 x 5 = 30 6 x 6 = 36	7 x 0 = 0 7 x 1 = 7 7 x 2 = 14 7 x 3 = 21 7 x 4 = 28 7 x 5 = 35 7 x 6 = 42	8 x 0 = 0 8 x 1 = 8 8 x 2 = 16 8 x 3 = 24 8 x 4 = 32 8 x 5 = 40 8 x 6 = 48	9 x 0 = 0 9 x 1 = 9 9 x 2 = 18 9 x 3 = 27 9 x 4 = 36 9 x 5 = 45 9 x 6 = 54	10 x 0 = 0 10 x 1 = 10 10 x 2 = 20 10 x 3 = 30 10 x 4 = 40 10 x 5 = 50 10 x 6 = 60	

### RISING 5<sup>TH</sup> GRADE MATH GAMES

Playing games is a great way to practice your facts! The chart below provides a list of math games you can play. Below, read directions for how to play.

Game	Number of Players	Materials Needed	Directions
Multiplication Madness	2	<ul> <li>Multiplication Madness game board (provided in this packet)</li> <li>2 different sets of colored space markers</li> <li>2 paper clips</li> </ul>	Player A places a paper clip on two numbers at the bottom of the game board (ex. 5 and 8), multiplies them, and covers the product (ex. 40) on the game board with a game marker. Player B moves ONE of the paper clips to a different number (ex. $5 \rightarrow 2$ ) and covers the new product on the game board (ex. $2 \times 8 = 16$ ) with a different colored marker. Continue taking turns. The first one with three in a row (vertically, horizontally, or diagonally) wins!
Make 20	2	<ul> <li>Make 20 instructions (included in this packet)</li> <li>1 deck of cards (remove the jokers and face cards)</li> </ul>	You have to see it to understand it! Read the "Make 20" instructions in your packet.
Race to 500	2-4	<ul> <li>1 deck of cards (remove the jokers and face cards)</li> <li>1 blank piece of paper per person</li> </ul>	You have to see it to understand it! Read the "Race to 500" instructions in your packet.
3-Digit Subtraction Action	2	<ul> <li>1 deck of cards (remove the jokers and face cards)</li> <li>1 blank piece of paper per person</li> </ul>	You have to see it to understand it! Read the "3-Digit Subtraction Action" instructions in your packet.
Make the Largest Product	2-4	<ul> <li>1 deck of cards (remove the jokers and face cards)</li> <li>1 blank piece of paper per person</li> </ul>	You have to see it to understand it! Read the "Make the Largest Product" instructions in your packet.
Three in a Row	2-3	<ul> <li>Three in a Row game board (versions 1 and 2 provided in this packet)</li> <li>2-3 different sets of colored space markers</li> <li>Note: the directions say you need a calculator, but this is not necessary</li> </ul>	Players take turns picking one number from Box A and one from Box B. Multiply the two numbers and cover the product. The first one to make 3 in a row wins.



### **Multiplication Madness!**

1	2	3	4	5	6
7	8	9	10	12	14
15	16	18	20	21	24
25	27	28	30	32	35
36	40	42	45	48	49
54	56	63	64	72	81

1 2 3 4 5 6 7 8 9

### Make 20

### \*Two players\*

Materials: One deck of cards with jokers and face cards removed.

### The Way to Play:

- •Deal 5 cards face up between the 2 players and stack the remaining cards face down in a pile.
- •Players try to Make 20 using the 5 cards with any operation (add, subtract, multiply, or divide) as many times as necessary.
- •If the player can make 20 they say, "201" then must verbalize how they reached the total. The player that can make 20 using the most cards wins.
- •When all cards have been used, the player with the most cards is the winner.

7

2

5

8

q

### Example:

Player 1:  $9 - 7 = 2 \times 5 = 10 + 2 = 12 + 8 = 20$ 

Player 2: 7 + 5 = 12 + 8 = 20

Player I wins and collects all five cards.

### Variation:

- •Use the face cards as II's, 12's, or even 0.
- •Each player is only allowed to use each operation once.
- •Change the number of cards (use 4 or 6 instead of 5)
- ·With younger students, make 10
- •Be creative and have fun playing!

## Race to 500

You will need: something to write on (paper, journal or whiteboard), digit cards (0-9)



- 1. Deal four digit cards to each person.
- 2. Use your four digit cards to make two 2-digit numbers.

Example:

Mary has the cards 3, 5, 7, 2.

She makes the numbers 57 and 23.

3. Find the difference between your two numbers. This is your score for round one.

Example:

57 - 23 = 34.

Mary's score for round one is 34.

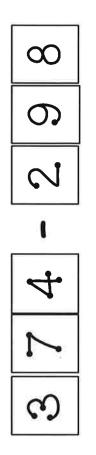
- 4. Shuffle the cards and repeat. Add your score to your score from the previous round.
- 5. Continue playing until one player's score reaches 500.



# 3-Digit Subtraction Action

You will need: 4 sets of digit cards (0-9), journal and a pencil

- Find a partner. Shuffle the digit cards and place them in a pile facedown between you and your partner.
- subtraction expression with two 3-Arrange them cards to make a Draw 6 cards from the pile. digit numbers. d

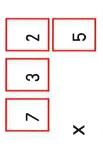


- with the difference as close to 0 as The goal is to make a expression <u>ത</u>
- Record your thinking in your journal to prove your difference to your partner. You and your partner will check each other's work.
- The player with the difference closest to 0 gets one point. 3
- The first player to reach 10 points wins!  $\dot{o}$ 32



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# Make the Largest Product



Materials: numeral cards 0-9 (4 of each), calculator

1. Shuffle the cards and place them facedown in a stack.

to create a 3-digit by 1-digit multiplication problem. Arrange your 2. Take four cards each from the top of the stack and use them cards to make the largest product possible.

3. Write and solve your multiplication problem.

4. Use a calculator to check each other's work. The player with the largest product scores one point. Subtract one point for an incorrect answer.

5. Continue play. The first player to reach five points is the winner.



2082 22 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2					
box a				box b	
18, 23, 35, 47, 79, 91			2, 3	, 5, 7,	8, 9
158	637	184	141	728	90
144	69	329	175	46	162
819	395	36	161	237	280
553	94	423	315	115	273
54	711	235	632	126	70
455	376	105	182	207	245

This is a 2- or 3-player game. You will need color counters (different color for each player), game board, and calculator.

Players take turns picking one number from Box A and one from Box B. On your turn, announce your numbers and your choice for the product of your numbers. Explain your strategy for finding the answer. Another player can check your answer with a calculator after you have announced your choice. If your answer is correct, place your counter on the appropriate space on the board. If the answer is incorrect, you may not place your counter on the board. Your goal is to be the first one to make "three-in-a-row," horizontally, vertically, or diagonally.

Jelle	elle	RISING 5	TH GRADESUL	MER HOMEWOR
a Ih	200	in a		E 100
3[TI	66-	II 1-Q-	row	8
MAN		XXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	<u>₩</u>

box a				box b	
18, 23,	35, 47,	79, 91	14, 29,	35, 45,	54, 89
1,645	1,274	522	2,115	1,242	1,602
3,115	1,890	1,363	3,555	805	252
2,639	630	1,575	490	7,031	4,266
1,035	2,047	972	667	1,106	2,765
1,015	322	4,914	1225	4095	8,099
2,538	4,183	3185	810	2,291	658

This is a 2- or 3-player game. You will need color counters (different color for each player), game board, and calculator.

Players take turns picking one number from Box A and one from Box B. On your turn, announce your numbers and your choice for the product of your numbers. Explain your strategy for finding the answer. Another player can check your answer with a calculator after you have announced your choice. If your answer is correct, place your counter on the appropriate space on the board. If the answer is incorrect, you may not place your counter on the board. Your goal is to be the first one to make "three-in-a-row," horizontally, vertically, or diagonally.

### RISING 5<sup>TH</sup> GRADE MATH PRACTICE PAGES

In addition to the games and flashcards, you should practice math skills by completing the pages provided. You should complete about two pages (front and back = 1 page) per week.

1.	The koala bear is 21 inches tall. The elephar tall is the elephant?	nt is 9 times as tall as the koala. How
		b1
		Answer:
Write	a number sentence that matches the probler	
	<u></u>	No.
2.	The auditorium has 96 seats. There are eigh of seats in each row. How many seats are in	
		5.
-		Answer:
Write	a number sentence that matches the probler	m.

3.	Francesca earned \$42 selling candy bars. Bobby earned 4 times as much money selling lemonade. How much money did Bobby earn?
	Answer:
Vrite :	a number sentence that matches the problem.
7.	Mr. Webb's class started the year with 6 boxes of pencils with 75 pencils in each box. Now they have only 209 left. How many pencils have they used so far this year?
	Answer:

	How many books will each kindergartner get?	ook
	6	
	Answer:	
Write	a number sentence that matches the problem.	
6.	Eight students want to share 6 candy bars so that all students get the same amount. How much does each child get?	Э
6.		
6.		
6.		9
6.		e
6.		e
6.		9
6.		

7.	The floor of Mrs. Brown's classroom is a rectangle. The width is 27 feet and the length is 36 feet. What is the area of Mrs. Brown's classroom?
	Answer:
Write	a number sentence that matches the problem.
8.	There is a trail that is 3 miles long from the park to the beach. At every ¼ mile there is a flag. How many flags are there on the trail?
	Answer:
Write	a number sentence that matches the problem.

9. The juic	e is 1⁄3 of a quar	· · · · · · · · · · · · · · · · · · ·			
	n				
				Answer:	
Write a nu	mber sentence	that matches t	he problem.		
gre	re is a large ba en. 1 ¾ <sub>10</sub> feet of of the banner	f the banner is l	blue, 1 ¾ <sub>10</sub> fee	t of the banne	
gre	en. 1 $\frac{3}{10}$ feet of	f the banner is l	blue, 1 ¾ <sub>10</sub> fee	t of the banne	
gre	en. 1 $\frac{3}{10}$ feet of	f the banner is l	blue, 1 ¾ <sub>10</sub> fee	t of the banne	
gre	en. 1 $\frac{3}{10}$ feet of	f the banner is l	blue, 1 ¾ <sub>10</sub> fee	t of the banne	
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gre	en. 1 $\frac{3}{10}$ feet of	f the banner is l	blue, 1 ¾ <sub>10</sub> fee	t of the banne	1 1 %/10

11. Each of seven dancers on the step team ate ¾ of an energy bar. How many energy bars did the dancers eat?
Answer:
Write a number sentence that matches the problem.
12. The floor of Jalen's classroom is a rectangle. The width is 27 feet and the length is 36 feet. What is the area of Jalen's classroom?
Answer:
Write a number sentence that matches the problem.

13. Mario made 2 rectangular s much pizza is left?	
	Answer:
Vrite a number sentence that mat	ches the problem.
Vrite a number sentence that mat	ches the problem.
14. Federico ran 3 miles before	school. After school he ran % of a mile home. How he before school than after school?
14. Federico ran 3 miles before	school. After school he ran ¾ of a mile home. How
14. Federico ran 3 miles before	school. After school he ran ¾ of a mile home. How
14. Federico ran 3 miles before	school. After school he ran ¾ of a mile home. How
14. Federico ran 3 miles before	school. After school he ran ¾ of a mile home. How
14. Federico ran 3 miles before	school. After school he ran ¾ of a mile home. How
14. Federico ran 3 miles before	school. After school he ran ¾ of a mile home. How
14. Federico ran 3 miles before	school. After school he ran ¾ of a mile home. How

**4.NBT.B.5** Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

1. Find the product.

2. Find the product.

- **3.** Hannah is helping her grandmother make a quilt. Each row will have 16 squares. There will be 14 rows.
  - a. Draw a model of the quilt.

b. How many squares will Hannah and her grandmother need to make?

- 4. Juan bakes and sells dog treats at the farmers market. He always fits 12 treats on a cookie sheet. On Saturday, he bakes 8 batches of dog treats.
  - a. Draw an array to match the problem situation.

- b. Write an equation to show how many dog treats Juan bakes.
- c. Solve the equation you wrote.
- 5. An Olympic-sized swimming pool is 50 meters long and 25 meters wide.
  - a. Draw a model to show the area of an Olympic-sized pool.

- **b.** Write an equation to show the area of an Olympic-sized pool.
- c. Solve the equation you wrote.
- 6. Principal Watts walks 5 miles every day. How many miles does he walk in 1 year, or 365 days? Write and solve an equation.

**4.NBT.B.6** Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

1. Find the quotient.

486 ÷ 3

2. Find the quotient.

 $1,250 \div 7$ 

- 3. Aaron raises chickens. He sells chicken eggs by the dozen. On Friday, Aaron sold 96 eggs. How many dozen eggs did Aaron sell?
  - a. Draw a rectangular array to model the problem situation.

- b. Write an equation that matches the model you drew.
- c. Solve the equation you wrote.

4. Claire helps at her mother's flower shop. This week, her mother received a shipment of 250 sunflowers. Claire put them in bundles of 8 flowers. How many bundles did she make? Did she have any bundles with fewer than 8 sunflowers? If so, how many more sunflowers would she need to complete the bundle?

- **5.** A tailor sews 8 buttons on each jacket he makes. He has 220 buttons. On how many jackets can he sew buttons?
- 6. Green Valley City Park has an area of 6,557 square feet. The length of the park is 83 feet.
  - a. Draw a model to show Green Valley City Park.

**b.** Write and solve an equation to show how to find the width of the park.

**4.NF.A.1** Explain why a fraction  $\frac{a}{b}$  is equivalent to a fraction  $\frac{(n \times a)}{(n \times b)}$  by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.

- 1. Stella and Brian each heat up a small pizza. Stella cuts her pizza into 4 equal slices. Brian cuts his pizza into 8 equal parts.
  - a. Draw models of Stella's pizza and Brian's pizza.

**b.** Stella eats two pieces of her pizza. Brian eats four pieces of his pizza. Do they eat the same amount of pizza? Show using models.

**2.** Which of the fractions below is equivalent to  $\frac{1}{3}$ ? Show why that fraction is equivalent to  $\frac{1}{3}$ .

$$\frac{4}{5}$$
  $\frac{4}{6}$   $\frac{4}{9}$   $\frac{4}{12}$ 

3. Which two models show equivalent fractions? Explain how you know.

A B C

4. Four students draw a design for a class flag. Each flag is black and white. Shown below are four designs. Which designs have the same fractions of black and white? Explain how you know.

Madison's design

Kyle's design

Jason's design

Lina's design

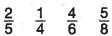
**4.NF.A.2** Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as  $\frac{1}{2}$ . Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.

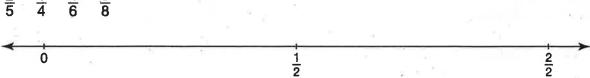
- **1.** Which fraction is less than  $\frac{5}{8}$ ?
  - **A**  $\frac{7}{8}$
  - **B**  $\frac{6}{8}$
  - $C_{\frac{5}{6}}$
  - $D \frac{4}{8}$

- **2.** Which fraction is greater than  $\frac{1}{7}$ ?
  - **A**  $\frac{1}{5}$
  - **B**  $\frac{1}{8}$
  - $C_{\frac{1}{9}}$
  - $D_{\frac{1}{10}}$
- **3.** A kitchen floor has green, yellow, and white tiles. Of those tiles,  $\frac{2}{5}$  are green and  $\frac{2}{10}$  are yellow. Are there more green tiles than yellow tiles? Explain how you know.

**4.** Barry got a small sandwich for lunch and ate  $\frac{1}{2}$  of his sandwich. Jonah got a large sandwich and ate  $\frac{1}{2}$  of his sandwich. Did Jonah and Barry eat the same amount for lunch? Explain how you know.

5. Place these fractions on the number line below. Then complete the inequalities.





- **a.**  $\frac{2}{5}$   $\frac{1}{2}$  and  $\frac{4}{6}$   $\frac{1}{2}$  so  $\frac{2}{5}$   $\frac{4}{6}$ .
- **b.**  $\frac{5}{8}$   $\frac{1}{2}$  and  $\frac{1}{4}$   $\frac{1}{2}$  so  $\frac{5}{8}$   $\frac{1}{4}$ .
- **c.**  $\frac{4}{6}$   $\frac{1}{2}$  and  $\frac{4}{6}$   $\frac{2}{2}$  and  $\frac{5}{8}$   $\frac{1}{2}$  and  $\frac{5}{8}$   $\frac{2}{2}$  and  $\frac{5}{8}$   $\frac{4}{6}$ .
- **6.** Tell which fraction is greater:  $\frac{6}{8}$  \_\_\_\_\_  $\frac{6}{10}$ . Write < or >.

Draw models of fraction strips to prove your answer.

7. Inez compared the fractions  $\frac{1}{5}$  and  $\frac{1}{3}$ . She said, "I compared the denominators. Because 5 is greater than 3,  $\frac{1}{5}$  is greater than  $\frac{1}{3}$ ."

Is Inez correct? Explain your answer.

**4.NF.C.5** Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100.

1. For each of these fractions, write the equivalent fraction with a denominator of 100.

$$\frac{4}{10} =$$
\_\_\_\_\_

$$\frac{7}{10} =$$
\_\_\_\_\_

$$\frac{2}{10} =$$
\_\_\_\_\_\_

$$\frac{9}{10} =$$
\_\_\_\_\_

$$\frac{18}{10} =$$
\_\_\_\_\_

$$\frac{26}{10} =$$

2. Find the sums.

**a.** 
$$\frac{4}{10} + \frac{3}{100} =$$

**b.** 
$$\frac{7}{10} + \frac{2}{100} =$$

**c.** 
$$\frac{9}{10} + \frac{3}{100} =$$

**d.** 
$$\frac{1}{100} + \frac{5}{10} =$$

**e.** 
$$\frac{6}{100} + \frac{8}{10} =$$

Find the sums.

3. 
$$\frac{5}{10} + \frac{2}{100} =$$

4. 
$$\frac{7}{100} + \frac{2}{10} =$$

**5.** 
$$\frac{8}{10} + \frac{3}{100} =$$

**6.** 
$$\frac{4}{100} + \frac{3}{10} =$$

7. 
$$\frac{6}{100} + \frac{1}{10} =$$

**8.** 
$$\frac{36}{10} + \frac{8}{100} =$$

9. 
$$\frac{11}{10} + \frac{7}{100} =$$

**10.** 
$$\frac{5}{100} + \frac{2}{10} =$$

4.NF.C.6 Use decimal notation for fractions with denominators 10 or 100.

- 1. Which is the decimal form of  $\frac{4}{10}$ ?
  - **A** 0.4
  - **B** 4.0
  - **C** 0.04
  - **D** 0.44

- 2. Which fraction equals 0.29?
  - A 2
  - **B**  $\frac{2}{10}$
  - $c_{\frac{29}{100}}$
  - **D**  $\frac{29}{10}$
- 3. Write these fractions in decimal form.

$$\frac{2}{10} =$$
\_\_\_\_\_

$$\frac{5}{10} =$$
\_\_\_\_\_

$$\frac{22}{100} =$$
\_\_\_\_\_

$$\frac{78}{100} =$$

$$\frac{.45}{100} =$$
\_\_\_\_\_

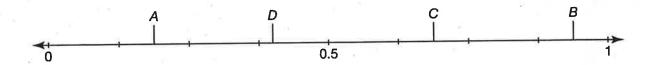
$$\frac{92}{100} = \frac{1}{100}$$

4. Write these decimals as fractions. Use denominators of either 10 or 100.

5. The number line shows tenths from 0 to 1.



- a. Write decimals to complete the number line.
- **b.** Below the number line, add leaders and labels for these three numbers: 0.68, 0.25, and 0.82.
- 6. The number line shows tenths from 0 to 1.



What decimals are shown by the short lines with letters? If you are not sure, write your best estimate.

Line A: \_\_\_\_\_

Line B: \_\_\_\_\_

Line C: \_\_\_\_\_

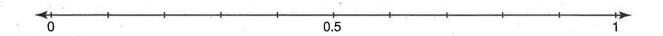
Line D: \_\_\_\_\_

Why is it difficult to identify lines C and D exactly?

**4.NF.C.7** Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual model.

1. Plot these two decimals on the number line below.

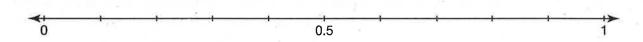
0.43 0.39



Write an inequality comparing the two decimals. Explain your answer using the number line.

2. Plot these two decimals on the number line below.

0.28 0.82



Write an inequality comparing the two decimals. Explain your answer using the number line.

3. The baseball team started the game with two one-liter bottles of water. At the end of the game, the first bottle had 0.3 liters left and the second had 0.4 liters left.

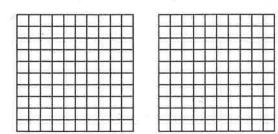
Draw a model to show the amount of water left in each bottle after the game.

Out of which liter bottle did more player take water? the first or the second?

- **4.** Simon and Danielle are on the baseball team. Last season, 0.15 of Simon's hits were home runs, and 0.15 of Danielle's hits were also home runs.
  - a. Can you tell whether Simon and Danielle hit the same number of home runs?

**b.** Frank is also on the baseball team. Of his hits last season, 0.19 were home runs. Can you tell if he hit more home runs than Simon or Danielle? Explain.

5. Draw a decimal square to represent 0.33 and 0.27.



Which is greater?



# RISING 5<sup>TH</sup> GRADE SCIENCE

### Activities to do this summer to prepare for fifth grade:

- Penny Experiment
- Science Experiment: Which materials will be attracted to a charged balloon?
- Read about Food Webs
  - o What is the difference between a food web and a food chain?
  - Draw a food web for land.
  - Draw a food web for water.
- Read "Where Butterflies Live"
  - Research another animal that migrates.
  - O Why do animals have to migrate?
- Complete an animal report
  - Check out a book at the library on an animal. You can choose any animal you want to research.
  - o Complete extra research with the help of an adult.
  - Answer the questions in the animal report booklet. Complete a draft on notebook paper and then write your final draft in neat handwriting.

### Science Books

Look for these great books about famous scientists at your local library.

Titles	Author	Торіс
Astrophysicist and Space Advocate Neil deGrasse Tyson	Marne Ventura	Have you ever stared into the night sky, full of stars and planets? As a kid, Neil deGrasse Tyson was star-struck when he first visited a planetarium. The universe was calling him. Now he is a famous astrophysicist with a TV show and over 1 million twitter followers. Follow his path from fascinated kid to popular space expert.
Electrical Wizard: How Nikola Tesla Lit Up the World	Oliver Dominguez	Learn all about Tesla who contributed to the field of electricity and technology.
Who is Jane Goodall?	Roberta Edwards	A life in the wild! Jane Goodall, born in London, England, always loved animals and wanted to study them in their natural habitats. So at age twenty-six, off she went to Africa! Goodall's upclose observations of chimpanzees changed what we know about them and paved the way for many female scientists who came after her. Now her story comes to life.
Marie Curie: Scientist Who Made Glowing Discoveries	Mike Venezia	Presents the life and accomplishments of the Polish-born scientist whose studies of radioactivity led to the discovery of two new elements, for which she received two Nobel Prizes.
<b>ReadWorks</b> website: various titles	Various	ReadWorks offers richly illustrated eBooks and a read aloud feature to support readers at all levels. Learn more about using eBooks with the quick tutorial video: https://about.readworks.org/parents_remote.html

### Virtual Trips

Summer is a great time to explore science in the city. Consider visiting some of these great places virutally as a family.

Place	Website	What to do
Brooklyn Botanic Gardens	https://www.bbg.org/	Visit the Brooklyn Botanic Gardens as a family for Family Discovery Weekends or for the Kids' Discovery Stations. Scholars can touch and smell the plants!
Prospect Park Zoo (or any zoo!)	https://prospectparkzoo.com/	Visit the zoo with your family. Have your scholar take notes on animals and their structures.

# Penny Experiment

Ever wondered what an atom is? Atoms are tiny little particles invisible to the human eye and are basic building blocks of almost everything we can see, touch, feel and taste. Even *you* are made up of trillions and trillions of atoms. Some things, like pennies, are made up of only a *single kind of atom*. Copper used to

make pennies are made up mostly of **copper atoms**. When those **copper atoms** contact other atoms, sometimes they join together. A **copper atom** that sticks to an **oxygen atom** creates a **molecule** called **copper oxide**. This is what makes a bright and shinny penny look dirty when that penny is old.

### This experiment will show you how to take apart the copper oxide from the penny.

- **1.** Collect six old, tarnished pennies.
- 2. Fill six cups with the following, and remember to label them:

  Vinegar + Salt, Lemon Juice, Cola, Ketchup, Soap + Water, Your choice of fluid!
- 3. Toss a penny into each cup and soak them for 10 minutes. Which solutions do you think will work? Which ones won't work? Which will work best?
- **4.** Dry the pennies on a paper towel and answer the questions below.



# Which penny is the shiniest? Which penny is the dullest? Which result surprised you?

NAME:		
INCHIVIL.		

# Science Experiment



QUESTION: Which materials will be attracted to a charged balloon?

- · · · · · · · · · · · · · · · · · · ·	esis stating which materials will be attracted to your hypothesis with a brief explanation.
	_ Hypothesis:
	Hypothesis:
Material:	Hypothesis:
	Hypothesis:
MATERIALS: • Balloons	
PPOCEDURE: How will you tos:	t vour hypothesis?
	t your hypothesis?
	<del>_</del>

RISING 5TH GRADE SUMMER HOMEWORK	K
DATE:	

NAME:	DATE:	<del></del>
OBSERVATIONS:		
MATERIALS:	ATTRACTED TO	NOT ATTRACTED
	BALLOON	TO BALLOON
	<u> </u>	<u> </u>
NALYSIS:  1. Which materials were attracted	d to the charged balloon?	·
2. What is the same about the mo	aterials that were attract	ted to the balloon?
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	RISING 5TH GRADE SUMMER HOMEWOR
NAME:	DATE:

# As a scientist, you need to be able to read scientific text and find the important information. Let's do a review of what you've learned about food chains and food webs.

Living things can be divided into many groups, including producers, consumers, and decomposers. Producers are living things that produce their own food. Plants, for example, are producers that use the sun and the process of photosynthesis to make their food.

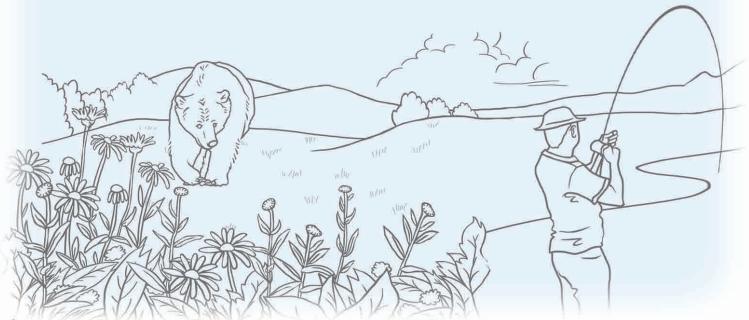
Consumers are living things that eat other living things. Consumers can be grouped into herbivores, carnivores, and omnivores.

All living things rely on each other for food. A food chain shows this relationship and how energy in the form of food transfers from one living thing to another. Here is an example: A plant makes its own food by using energy from the sun. Caterpillars eat plants, small birds eat caterpillars, and other animals such as cats hunt small birds. In this way, energy from the sun is transferred all the way up the food chain to the cat.

Remember, a predator is a living thing that hunts animals, and prey is an animal that is hunted. An animal can be both a predator and prey. In the food chain mentioned above, caterpillars are prey for small birds, and small birds are prey for cats. While cats are predators, they may be hunted by even larger predators, like bears.

A food web is a group of food chains that are connected. Imagine the ocean: Plankton use sunlight to produce food. Krill eat plankton. Animals like fish, seals, penguins, and certain whales feed on krill. Seals and penguins both eat fish, but the seals also eat the penguins. Sharks and killer whales eat both seals and penguins. In this food web, killer whales are the top of the food chain because they have no natural predators.

A food web is a complex system that needs balance. For example, if a predatory animal dies out, the population of the animals it preys on would increase. The overpopulated prey might eat up all the producers, leaving the landscape barren and lifeless. If certain prey becomes endangered or extinct, its predators might not have enough food and their numbers would also fall. Humans have a huge impact on food webs. Humans are responsible for pollution, habitat destruction, pesticide use, and overfishing, all of which can weaken or destroy food webs.



# Where do Butterflies Live?

Butterflies live everywhere in the world except Antartica and very arid deserts where there is no food for them. Butterflies are cold-blooded and eat nectar from flowers and fruit juice. They need to live where they can be warm and find flowers and fruit to eat.

Small apollo, alpen apollo Peacock (Inachis io, Tagpfauenauge) (Parnassius phoebus) lives in Europe. lives in Asia. Swallowtails live almost everywhere. The tiger swallowtail Oueen Alexandra's Birdwing is common in North America. Blue morphos live in the tropical forests of Latin America from Mexico to Colombia. Goliath birdwings live in the Monarchs migrate rain forests of New Guinea. between Canada and The largest known butterfly Tiny orange tip (Colotis evagore) Northern America in the belongs to this group. It is the is a butterfly of the Pieridae family. spring and summer and down Queen Alexandra's birdwing. It is found in the dry parts of tropical to Mexico in the winter. Africa, northern Africa, southern Spain,

Many butterflies migrate, or move from one place to another. One of the most famous of these is the monarch butterfly. Monarchs like to live near milkweed and where it is warm, so when it gets cold in North America in the winter, the monarch butterflies migrate by flying all the way to Central America or Mexico! In the spring, the monarchs can come back north while it is warm.

and southwest Arabia.

The monarchs migrate up to 2,500 miles. They travel between 20 and 50 miles per day. They only fly during the day. At night the migrating butterflies roost in trees. Monarchs often fly along shores and rivers. Monarchs also use the sun to know where to go.

Other butterflies hibernate, or sleep deeply, through the winter. Some types of butterflies that hibernate are: mourning cloaks, question marks, and commas. Some butterflies hibernate as eggs or larva like the gray hairstreak, cabbage white, checkered white, and some swallowtails.

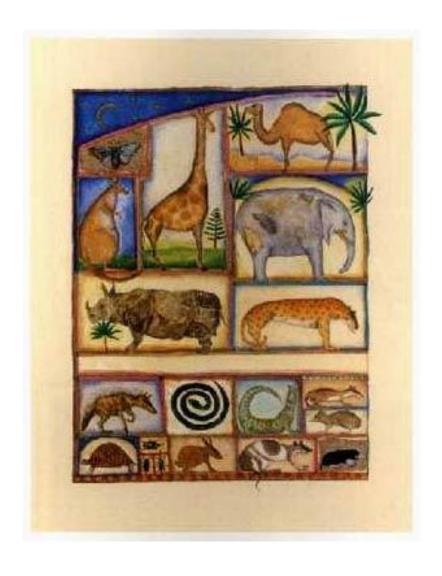
### Answer the questions about where butterflies live.

1. What is one place butterflies DO NOT live?	
2. Where do Goliath birdwing butterflies live?	
3. Where do monarch butterflies live in the winter?	



# Animal Report

by



Na	RISING 5TH G	GRADE SUMMER HOME	VORK
	My animal is a		
□ Mammal □ Bird □ Fish	□ Rept □ Amp □ Inse	hibian	

Here is a drawing (or picture) of my animal:





# Fast facts about my animal:

Color(s):
Sounds it makes:
Size:
Weight:
Lifespan:
Food it eats:
Enemies:
The 2 most interesting facts about my animal are:
1
2





### My animal's behavior:



when is your animal most active (day or night)?
is your animal a herbivore, carnivore, or omnivore? Explain how you know.

Draw two things you might see your animal doing:

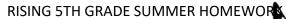
### Where my animal lives:

In what part of the world can we find your animal?

My animal's <b>habitat</b> is:	
dere is some information about my animal's <b>habitat</b> :	

Here is a drawing (or picture) of the habitat:







If my animal could talk, it would say	a
	-
My animal would / would not make a good pet because	

Draw your animal as a baby with its parents (make sure to include inherited traits):

