FIRSTLINE SCHOOLS
EDUCATION FOR LIFE

DISTANCE LEARNING FOR FIRSTLINE STUDENTS

PACKET #2

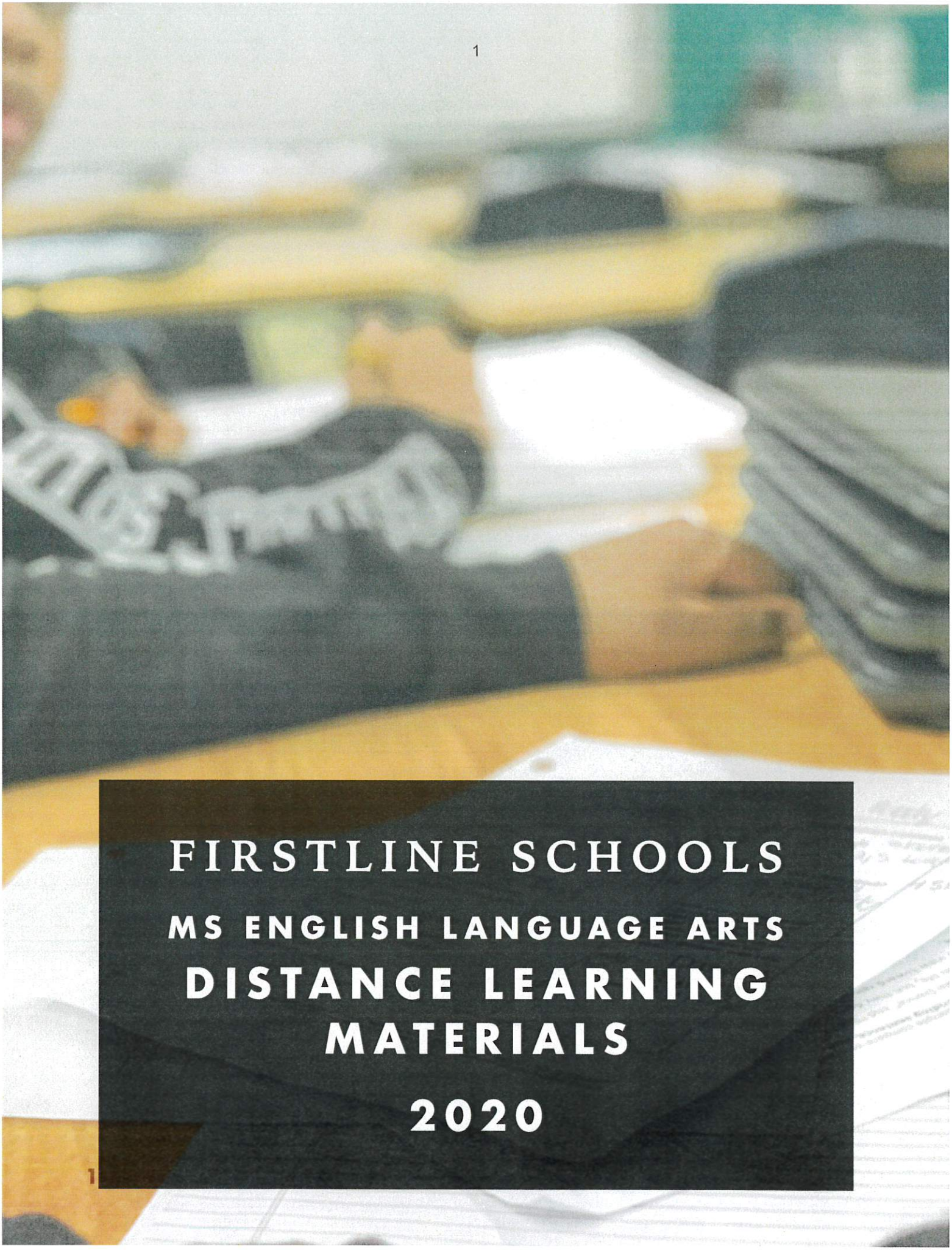
Start Date: Monday, March 30, 2020

GRADE:

K 1 2 3 4 5 6 7 8

CONTENT INCLUDED:

ELA MATH SCIENCE SOCIAL STUDIES



FIRSTLINE SCHOOLS

MS ENGLISH LANGUAGE ARTS

DISTANCE LEARNING MATERIALS

2020

Read for Deeper Meaning:

When reading fiction...

- Write a **gist** for each section or stanza
- Describe the **setting**: Where and when does the story take place? How does the setting influence the characters?
- Name the **conflict or problem:** who wants what? And what is getting in their way?
- Describe the **point of view:**
  - 1st - "I" "We" "Our"
  - 2nd- "You" "Your"
  - 3rd- "He" "She" "They"
  - Is it an all-knowing "omniscient" point of view or a limited point of view?
- Define the **perspective:** How is the narrator/ character connected to the events? How do they feel about them?
- Identify how the **characters change** over the course of the story: How did the events of the story affect the characters?
- Identify the **theme**

LITERARY ANALYSIS TASK:

Students read two fiction texts on a similar topic (which could be a story or poem) and compare the texts approach-which could include structure, point of view, setting or other literary elements.

Criteria for Success

1. *Answers the prompt with a clear claim*
2. *Gives reasons to support the claim*
3. *Includes evidence from all texts referenced in the prompt*
4. *Explains or interprets evidences' connection to reasons and claim*

TACKLING SELECTED RESPONSE QUESTIONS

- Craft a gist for the passage first.
- Answer for yourself!
    - Cover the answer choices
    - How would you answer this question on your own?
    - Reveal the answers
    - Select the choice that most closely matches your own response
- Go back into the text. When a question references a specific paragraph or line-RE-READ IT!
- Watch out for "tricky" words: BEST, EXCEPT, MOST LIKELY, NOT
- Elimination! Eliminate options you know to be incorrect
    - Mark words or alternatives in questions that eliminate the option
- For vocabulary questions, try substituting the answer choices into the sentence in place of the term.
- Remember that you are looking for the best answer, not only a correct one.

Today you will analyze a passage from *Where the Red Fern Grows* and the poem "The Lighthouse Lamp." As you read these texts, you will gather information and answer questions about the narrator's point of view so you can write an essay.

Read the passage from *Where the Red Fern Grows*. Then answer the questions.

from *Where the Red Fern Grows*

by Wilson Rawls

1 I shouted as loud as I could. "Over here. I need help. My dog is drowning."

2 I waited for an answer. All I could hear were the cries of Little Ann.

3 Again I hollered. "Over here. Over on the bank. Can you see my light? I need help. Please hurry."

4 I held my breath waiting for an answering shout. I shivered from the freezing cold of my wet shoes and overalls. A straining silence settled over the river. A feathery rustle swished by in the blackness. A flock of low-flying ducks had been disturbed by my loud shouts. I strained my ears for some sound. Now and then I could hear the lapping slap of the ice-cold water as it swirled its way through the trough.

5 I glanced to Little Ann. She was still holding on but I saw her paws were almost at the edge. I knew her time was short.

6 I couldn't figure out what I had heard. The sound was made by metal striking metal, but what was it? What could have caused it?

7 I looked at my ax. It couldn't have made the sound as it was too close to me. The noise had come from out in the river.

8 When I looked at my lantern I knew that it had made the strange sound. I had left the handle standing straight up when I had taken the pole away. Now it was down. For some unknown reason the stiff wire handle had twisted in the sockets and dropped. As it had fallen it had struck the metal frame, making the sharp metallic sound I had heard.

9 As I stared at the yellow glow of my light, the last bit of hope faded away. I closed my eyes, intending to pray again for the help I so desperately needed. Then like a blinding red flash the message of the lantern bored its way into my brain. There was my miracle. There was the way to save my little dog. In the metallic sound I had heard were my instructions. They were so plain I couldn't help but understand them. The bright yellow flame started flickering and dancing. It seemed to be saying, "Hurry. You know what to do."

10 Faster than I had ever moved in my life I went to work. With a stick I measured the water in the hole where my feet had broken through the ice. I was right. My foot had touched bottom. Eighteen inches down I felt the soft mud.

11 With my pole I fished the lantern back to the bank. I took the handle off, straightened it out, and bent a hook in one end. With one of my shoelaces I tied the wire to the end of the cane pole. I left the hook sticking out about six inches beyond the end of it.

12 I started shouting encouragement to Little Ann. I told her to hang on and not to give up for I was going to save her. She answered with a low cry.

GO ON ▶

13 With the hook stuck in one of the ventilating holes in the top of my light, I lifted it back out on the ice and set it down. After a little wiggling and pushing, I worked the hook loose and laid the pole down.

14 I took off my clothes, picked up my ax, and stepped down into the hole in the icy water. It came to my knees. Step by step, breaking the ice with my ax, I waded out.

15 The water came up to my hips, and then to my waist. The cold bite of it took my breath away. I felt my body grow numb. I couldn't feel my feet at all but I knew they were moving. When the water reached my armpits I stopped and worked my pole toward Little Ann. Stretching my arms as far out as I could, I saw I was still a foot short. Closing my eyes and gritting my teeth, I moved on. The water reached my chin.

16 I was close enough. I started hooking at the collar of Little Ann. Time after time I felt the hook almost catch. I saw I was fishing on a wrong angle. She had settled so low in the water I couldn't reach her collar. Raising my arms above my head so the pole would be on a slant I kept hooking and praying. The seconds ticked by. I strained for one more inch. The muscles in my arms grew numb from the weight of the pole.

17 Little Ann's claws slipped again. I thought she was gone. At the very edge of the ice, she caught again. All I could see now were her small red paws and her nose and eyes.

18 By Old Dan's actions I could tell he understood and wanted to help. He ran over close to my pole and started digging at the ice. I had to get him out of the way so I could see what I was doing.

19 Just when I thought my task was impossible, I felt the hook slide under the tough leather. It was none too soon.

From WHERE THE RED FERN GROWS—Public Domain

9. **Part A**

What does the word **strained** mean as it is used in paragraph 16?

Ⓐ to exert great physical effort

Ⓑ to demonstrate strong resistance

Ⓒ to experience stress or tension

Ⓓ to fight against a feeling of panic

Part B

Which sentence from the passage supports the narrator's use of the word **strained** in paragraph 16?

Ⓐ "As I stared at the yellow glow of my light, the last bit of hope faded away." (paragraph 9)

Ⓑ "After a little wiggling and pushing, I worked the hook loose and laid the pole down." (paragraph 13)

Ⓒ "Step by step, breaking the ice with my ax, I waded out." (paragraph 14)

Ⓓ "Stretching my arms as far out as I could, I saw I was still a foot short." (paragraph 15)

10. **Part A**

Which statement expresses a theme in *Where the Red Fern Grows*?

Ⓐ Determination is often rewarded.

Ⓑ Caring for animals brings happiness.

Ⓒ Harsh discipline is sometimes necessary.

Ⓓ Animals can understand difficult situations.

Part B

Which sentence from the passage supports the answer to Part A?

Ⓐ "I closed my eyes, intending to pray again for the help I so desperately needed." (paragraph 9)

Ⓑ "I started shouting encouragement to Little Ann." (paragraph 12)

Ⓒ "I strained for one more inch." (paragraph 16)

Ⓓ "Just when I thought my task was impossible, I felt the hook slide under the tough leather." (paragraph 19)

11. **Part A**

Which emotions are emphasized through the author's use of first-person point of view?

Ⓐ frightened, but driven

Ⓑ powerful, but insecure

Ⓒ forceful, but respectful

Ⓓ excited, but confused

Part B

Which **two** sentences from the passage support both parts of the answer in Part A?

Ⓐ "I started shouting encouragement to Little Ann." (paragraph 12)

Ⓑ "It came to my knees." (paragraph 14)

Ⓒ "The water came up to my hips, and then to my waist." (paragraph 15)

Ⓓ "Closing my eyes and gritting my teeth, I moved on." (paragraph 15)

Ⓔ "I saw I was fishing on a wrong angle." (paragraph 16)

Ⓕ "Raising my arms above my head so the pole would be on a slant I kept hooking and praying." (paragraph 16)

Read the poem "The Lighthouse Lamp." Then answer the questions.

The Lighthouse Lamp

by Margaret E. Sangster

The winds came howling down from the north,
Like a hungry wolf for prey,
And the bitter sleet went hurtling forth,
In the pallid face of the day.

And the snowflakes drifted near and far,
Till the land was whitely fleeced,
And the light-house lamp, a golden star,
Flamed over the waves' white yeast.

In the room at the foot of the light-house
Lay mother and babe asleep,
And little maid Gretchen was by them there,
A resolute watch to keep.

There were only the three on the light-house isle,
But father had trimmed the lamp,
And set it burning a weary while
In the morning's dusk and damp.

"Long before night I'll be back," he said,
And his white sail slipped away;
Away and away to the mainland sped,
But it came not home that day.

The mother stirred on her pillow's space,
And moaned in pain and fear,
Then looked in her little daughter's face
Through the blur of a starting tear.

"Darling," she whispered, "it's piercing cold,
And the tempest is rough and wild;
And you are no laddie strong and bold,
My poor little maiden child.

"But up aloft there's the lamp to feed,
Or its flame will die in the dark,
And the sailor lose in his utmost need
The light of our islet's ark."

"I'll go," said Gretchen, "a step at a time;
Why, mother, I'm twelve years old,
And steady, and never afraid to climb,
And I've learned to do as I'm told."

Then Gretchen up to the top of the tower,
Up the icy, smooth-worn stair,
Went slowly and surely that very hour,
The sleet in her eyes and hair.

She fed the lamp, and she trimmed it well,
And its clear light glowed afar,
To warn of reefs, and of rocks to tell,
This mariner's guiding star.

And once again when the world awoke
In the dawn of a bright new day,
There was joy in the hearts of the fisher folks
Along the stormy bay.

When the little boats came sailing in
All safe and sound to the land,
To the haven the light had helped them win,
By the aid of a child's brave hand.

"The Lighthouse Lamp" by Margaret E. Sangster—Public Domain

12. **Part A**

Which sentence summarizes the poem "The Lighthouse Lamp"?

Ⓐ A father is lost at sea as his family struggles to survive through the night in a lighthouse.

Ⓑ A mother huddles with her baby to stay warm during a storm while her twelve-year-old daughter watches over them.

Ⓒ A mother and her family find courage to climb the icy steps to a lighthouse tower and turn on the lantern.

Ⓓ A twelve-year-old girl saves boats coming to shore by fighting through a storm to light the lantern in a lighthouse.

Part B

Which lines from the poem provide the clearest evidence for the summary in Part A? Select **two** answers.

Ⓐ "And the light-house lamp, a golden star, / Flamed over the waves' white yeast." (lines 7–8)

Ⓑ "In the room at the foot of the light-house / Lay mother and babe asleep," (lines 9–10)

Ⓒ "And little maid Gretchen was by them there, / A resolute watch to keep." (lines 11–12)

Ⓓ "The mother stirred on her pillow's space, / And moaned in pain and fear," (lines 21–22)

Ⓔ "She fed the lamp, and she trimmed it well, / And its clear light glowed afar," (lines 41–42)

Ⓕ "There was joy in the hearts of the fisher folks / Along the stormy bay." (lines 47–48)

13. **Part A**

Which **two** character traits describe both the narrator in the story and Gretchen in the poem as they respond to the challenges they must face?

Ⓐ courageous

Ⓑ adventurous

Ⓒ persistent

Ⓓ impatient

Ⓔ clumsy

Ⓕ bossy

Part B

Which **two** pieces of evidence from the texts demonstrate the traits from Part A? Select **one** from each text.

Ⓐ "I shouted as loud as I could." — from *Where the Red Fern Grows*

Ⓑ "I couldn't figure out what I had heard." — from *Where the Red Fern Grows*

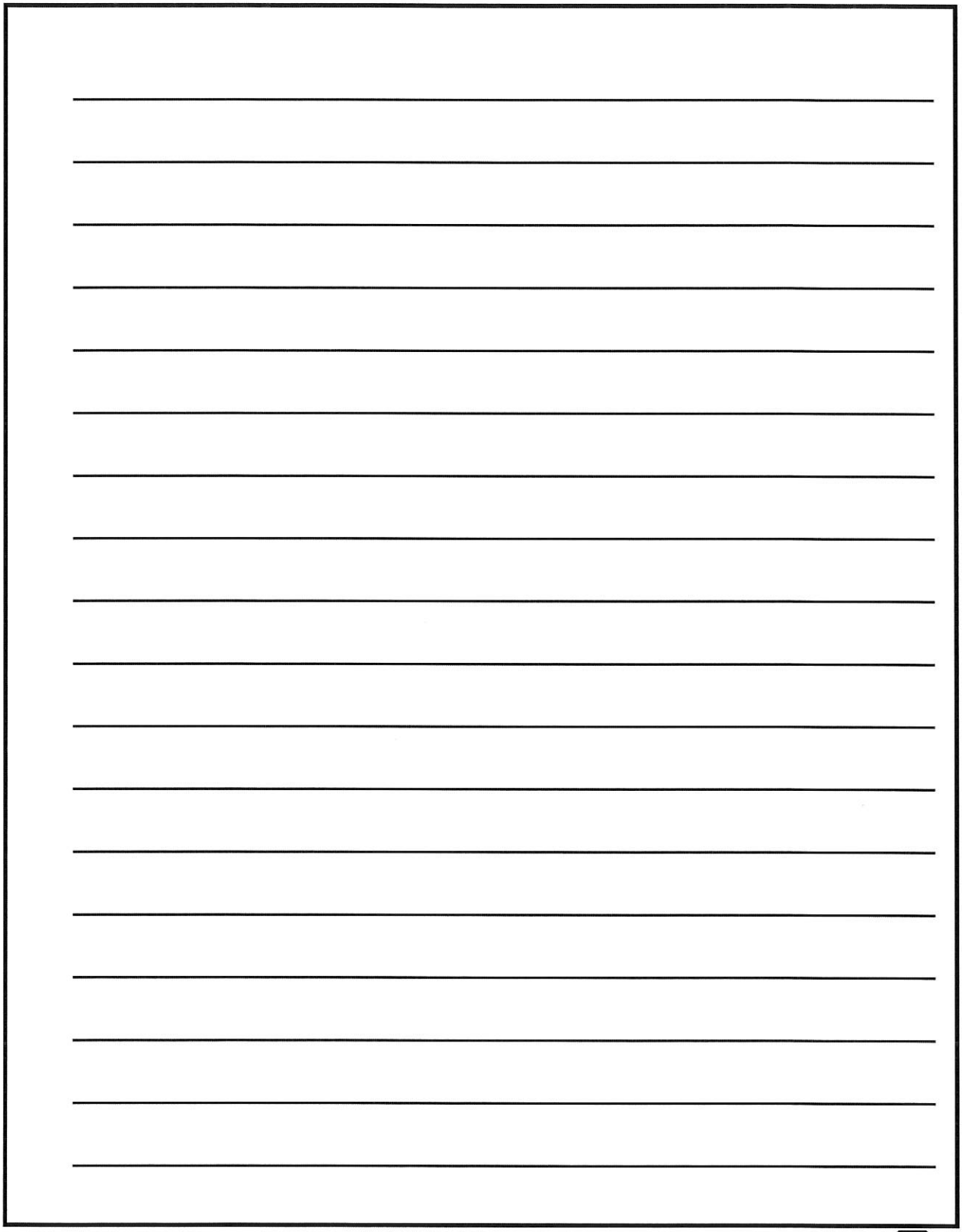
Ⓒ "I took off my clothes, picked up my ax, and stepped down into the hole in the icy water" — from *Where the Red Fern Grows*

Ⓓ ". . . And little maid Gretchen was by them there, . . . " — from "The Lighthouse Lamp"

Ⓔ " 'I'll go,' said Gretchen, 'a step at a time; / Why, mother, I'm twelve years old, . . .' " — from "The Lighthouse Lamp"

Ⓕ "Then Gretchen up to the top of the tower, . . . " — from "The Lighthouse Lamp"

14. *Where the Red Fern Grows* and "The Lighthouse Lamp" are written from different points of view. Write an essay analyzing the impact of point of view on events in the passage from *Where the Red Fern Grows* and the impact of point of view on events in the poem, "The Lighthouse Lamp." Use specific examples from **both** texts to support your answer.



STOP

NARRATIVE TASK:

Students will read a fiction text and either continue the story, write an alternate ending or tell the story from a different character's perspective

Criteria for Success

1. *Told like a story*
2. *References characters and settings of original text*
3. *Has a clear narrator*
4. *Includes dialogue*
5. *Follows the direction of the prompt: retelling or continuing the story*

Today you will read a passage from *The Bread Winner*. As you read, pay close attention to the point of view of the characters as you answer the questions to prepare to write a narrative story.

Read the passage from *The Bread Winner*. Then answer the questions.

from *The Bread Winner*

by Arvella Whitmore

1 "Ma'am," he said, "I have a big table in my truck here. I thought since you folks were in the baking business, you might want it. It's been in our basement a long time and we don't need it."

2 "That's ever so nice of you," said Mama. "I'd be happy to take it, but I'll have to ask my husband and daughter what they think." Sarah followed the man outside while Mama went to get Daddy, who was kneading dough in the back. The table was lying on its side, and it was huge. It must be seven or eight feet long and at least four feet wide, thought Sarah. Strong looking, too, with its thick, swirled oak legs. They'd have to keep it in the front of the store since there wouldn't be room in back. But it would be just right for kneading dough. The tables they owned were too small.

3 Sarah smiled as Daddy came out, wiping his hands on his apron. A week ago you couldn't have paid him to step out on Main Street in an apron. Sarah guessed he'd been so busy he forgot.

4 "What do you think?" asked Sarah. "It would be perfect for kneading dough and shaping loaves."

5 "It looks good to me," said Mama.

6 Daddy shook his head. "I don't know. We don't have room for it in the back."

7 "But we could put it in front," said Sarah. "Those tables in back are too small."

8 Daddy frowned. "In front o' the big windows?"

9 "Why not?" Mama said. "I don't care if people watch me make bread." She winked at Sarah behind Daddy's back. Though Daddy had never said a word about it, they both knew that he would rather people didn't see him work with dough. It was silly, thought Sarah, and the sooner he got over it, the better.

10 "Please, Daddy," Sarah cried, "let's take the table. Besides, the front of the store looks bare, and when the shop is open we can use the table as a counter."

11 Daddy nodded to the man and grinned. "Seems I'm outnumbered. Guess we'll take it. Mighty thoughtful of you. Here, let me give you a hand."

12 The two men placed the big dusty table in the front part of the store, in full view of the large show windows. With brushes and soapy water, Sarah and Mama scrubbed it down to its pale oak finish. Then they spread flour on top. Sarah took some of Daddy's dough from the back, brought it out to the big table, and started kneading it.

13 Soon a small crowd gathered in the street outside the window to watch her. When Daddy came out from behind the privacy curtain, Sarah expected him to duck behind it,

GO ON ▶

but he didn't. When he saw all the people out there, he grinned and waved. Leaning over the table, he scrawled a message on a brown paper sack: OPEN AT NOON. He clipped it to the red-checked window curtain with a clothespin, then disappeared into the back of the store. A few seconds later he came out again with a big pan and set it down on the table between himself and Sarah. He grabbed some dough and started kneading it. Sarah couldn't believe her eyes!

14 "You were right," Daddy said. "We needed this table." Once in a while he looked up and waved at the crowd on the street. "Pretty good advertising, wouldn't you say?" he asked.

15 "The best," said Sarah.

16 "Yep," said Daddy, "nobody's gonna say our bread isn't homemade. No sirree."

17 Mama looked on and smiled. A minute later she brought out a pan of dough and started making cinnamon rolls. "When we get settled in," she said, "I might try my hand at cakes and pies. Just a few at first, to see how they go. I used to be good at it."

18 "That would be wonderful," said Sarah.

19 "What do you think we oughta call our bakery?" asked Daddy. "Every business oughta have a name."

20 "Gee, I don't know," said Sarah. "I never thought about it."

21 "I have an idea," he said. "After all, Sarah, you won that blue ribbon at the fair a while back." He glanced across the table at Mama. "If it wasn't for our champ here, we might have ended up in the poorhouse. I think we oughta call it the Blue Ribbon Bakery."

22 Sarah grinned. Daddy must be proud of her to suggest that name. But to her, it didn't seem quite right.

23 "That's nice, Daddy," she said. "But I think we ought to call it Pucketts' Blue Ribbon Bakery. It's a family business now."

15. **Part A**

What does paragraph 11 reveal about the characters?

Ⓐ The characters have different opinions about the table.
Ⓑ The characters had a disagreement about starting a bakery.
Ⓒ The characters agree on a name for their new bakery.
Ⓓ The characters think working together is a good idea.

Part B

Which word from paragraph 11 supports the answer to Part A?

Ⓐ nodded
Ⓑ grinned
Ⓒ outnumbered
Ⓓ thoughtful

16. **Part A**

What is a theme of the passage?

Ⓐ If you are willing to change, good things may happen.
Ⓑ Hard work pays off in many ways.
Ⓒ People can find friendship in the most unexpected places.
Ⓓ Opportunities are everywhere; you just need to take advantage of them.

Part B

Which paragraph from the passage supports this theme?

Ⓐ paragraph 1
Ⓑ paragraph 12
Ⓒ paragraph 13
Ⓓ paragraph 16

17. **Part A**

What does the narrator's point of view reveal about Sarah?

Ⓐ She is proud of winning a blue ribbon at the fair.

Ⓑ She wants her Mama to start baking desserts again.

Ⓒ She is worried about her father's actions toward the man in the truck.

Ⓓ She is confident and willing to take a risk with the business.

Part B

Which evidence from the passage supports the answer to Part A?

Ⓐ " 'Ma'am,' he said, 'I have a big table in my truck here. I thought since you folks were in the baking business, you might want it. It's been in our basement a long time and we don't need it.' " (paragraph 1)

Ⓑ " 'Please, Daddy,' Sarah cried, 'let's take the table. Besides, the front of the store looks bare, and when the shop is open we can use the table as a counter.' " (paragraph 10)

Ⓒ " 'I have an idea,' he said. 'After all, Sarah, you won that blue ribbon at the fair a while back.' He glanced across the table at Mama. 'If it wasn't for our champ here, we might have ended up in the poorhouse.' " (paragraph 21)

Ⓓ " 'That's nice, Daddy,' she said. 'But I think we ought to call it Pucketts' Blue Ribbon Bakery. It's a family business now.' " (paragraph 23)

18. **Part A**

Compare Sarah's and Daddy's reactions to the offer of the table. Select **two** quotations that show their different reactions.

Ⓐ "It must be seven or eight feet long and at least four feet wide, thought Sarah. Strong looking, too, with its thick, swirled oak legs. They'd have to keep it in the front of the store since there wouldn't be room in back. But it would be just right for kneading dough. The tables they owned were too small." (paragraph 2)

Ⓑ "Sarah smiled as Daddy came out, wiping his hands on his apron. A week ago you couldn't have paid him to step out on Main Street in an apron. Sarah guessed he'd been so busy he forgot." (paragraph 3)

Ⓒ "Daddy shook his head. 'I don't know. We don't have room for it in the back.' " (paragraph 6)

Ⓓ "Though Daddy had never said a word about it, they both knew that he would rather people didn't see him work with dough." (paragraph 9)

Ⓔ "Daddy nodded to the man and grinned. 'Seems I'm outnumbered. Guess we'll take it. Mighty thoughtful of you. Here, let me give you a hand.' " (paragraph 11)

Ⓕ " 'Gee, I don't know,' said Sarah. 'I never thought about it.' " (paragraph 20)

Part B

Why do Sarah and Daddy have different reactions to the offer of the table?

Ⓐ Sarah does not mind if people see her through the windows working, but Daddy does not want people to see him.

Ⓑ Daddy thinks they do not need another table, but Sarah thinks they do because the tables that they have are too small.

Ⓒ Sarah thinks the table will be perfect in the store because the table is big and strong, but Daddy thinks the table is too old and dirty to put in the store.

Ⓓ Daddy thinks the table will be useful as a counter because the store looks bare, but Sarah thinks the table is too big to put in the store.

19. Write a journal entry about the day the table arrived from the point of view of either Sarah, Daddy, or Mama. Use details from the story to describe how the table was used, the emotional effect the table had on the family member chosen, and thoughts about how the table will affect business in the future.

GO ON ▶

GO ON ▶

5th Grade Math			
Date	**Lesson**	**Objective**	**Assignment**
Monday, March 30	Mission 5, Lesson 15	Solve real-world problems involving area of figures with fractional side lengths using visual models and/or equations.	■ Problem of the Day #58 ■ Zearn Student Notes ■ Problem Set
Tuesday, March 31	Mission 5, Lesson 16	Draw trapezoids to clarify their attributes, and define trapezoids based on those attributes.	■ Problem of the Day #59 ■ Zearn Student Notes ■ Problem Set
Wednesday, April 1	Mission 5, Lesson 17	Draw parallelograms to clarify their attributes, and define parallelograms based on those attributes.	■ Problem of the Day #60 ■ Zearn Student Notes ■ Problem Set
Thursday, April 2	Mission 5, Lesson 18	Draw rectangles and rhombuses to clarify their attributes, and define rectangles and rhombuses based on those attributes.	■ Problem of the Day #61 ■ Zearn Student Notes ■ Problem Set
Friday, April 3	Extra Practice		■ Problem of the Day #62 ■ Complete Exit Tickets for Lessons 15-18
Monday, April 6	Mission 5, Lesson 19	Draw squares to clarify their attributes, and define squares based on those attributes.	■ Problem of the Day #63 ■ Problem Set
Tuesday, April 7	Mission 5, Lesson 20	Classify two-dimensional figures in a hierarchy based on properties.	■ Problem of the Day #64 ■ Problem Set
Wednesday, April 8	Mission 5, Lesson 21	Draw and identify varied two-dimensional figures from given attributes.	■ Problem of the Day #65 ■ Zearn Student Notes ■ Problem Set
Spring Break: April 9- April 13			

Problem 58

Janice has 3 gallons of apple juice and drinks $\frac{1}{4}$ gallon of apple juice every day. How many days will it take her to drink all of her apple juice?

- **Question**: What do you need to solve? Underline in the problem and rewrite below.

- **Information:** What information do you know? List below.

- **Model and Solve**: How can you model the situation (ex: equation, picture, table, graph, tape diagram, organized list, double number line, etc.)? Solve using your model.

Lesson 15 G:5 M:5	Dive into Dimensions
	ZEARN STUDENT NOTES

Name:_____ Date:March 30, 2020

Complete: ☐ Class:_____

1 Some wire is used to make 3 rectangles: A, B, and C. Rectangle B's dimensions are $\frac{3}{5}$ cm larger than Rectangle A's dimensions, and Rectangle C's dimensions are $\frac{3}{5}$ cm larger than Rectangle B's dimensions. Rectangle A is 2 cm by 3 $\frac{1}{5}$ cm.

What is the total area of all three rectangles?

DRAW

_____ _____ _____

SOLVE

2 If a 40-cm coil of wire was used to form the rectangles, how much wire is left?

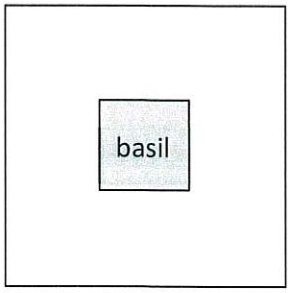
SOLVE

Name _____ Date March 30, 2020

1. The length of a flowerbed is 4 times as long as its width. If the width is $\frac{3}{8}$ meter, what is the area?

2. Mrs. Johnson grows herbs in square plots. Her basil plot measures $\frac{5}{8}$ yd on each side.

   a. Find the total area of the basil plot.



   b. Mrs. Johnson puts a fence around the basil. If the fence is 2 ft from the edge of the garden on each side, what is the perimeter of the fence in feet?

c. What is the total area, in square feet, that the fence encloses?

3. Janet bought 5 yards of fabric $2\frac{1}{4}$-feet wide to make curtains. She used $\frac{1}{3}$ of the fabric to make a long set of curtains and the rest to make 4 short sets.

a. Find the area of the fabric she used for the long set of curtains.

b. Find the area of the fabric she used for each of the short sets.

4. Some wire is used to make 3 rectangles: A, B, and C. Rectangle B's dimensions are $\frac{3}{5}$ cm larger than Rectangle A's dimensions, and Rectangle C's dimensions are $\frac{3}{5}$ cm larger than Rectangle B's dimensions. Rectangle A is 2 cm by $3\frac{1}{5}$ cm.

   a. What is the total area of all three rectangles?

   b. If a 40-cm coil of wire was used to form the rectangles, how much wire is left?

Problem 59

Wayne ran for a little bit. Then he rested and ran for $2\frac{2}{3}$ more miles. In total he ran $5\frac{1}{4}$ miles. How many miles did Wayne run before he rested?

- **Question**: What do you need to solve? Underline in the problem and rewrite below.

- **Information:** What information do you know? List below.

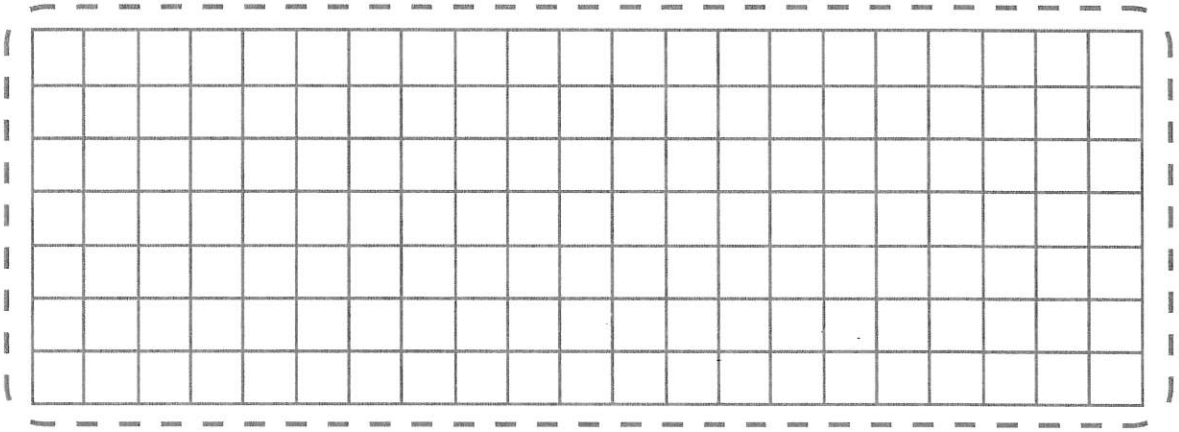
- **Model and Solve**: How can you model the situation (ex: equation, picture, table, graph, tape diagram, organized list, double number line, etc.)? Solve using your model.

Lesson 16 G:5 M:5	Tricky Trapezoids
	ZEARN STUDENT NOTES

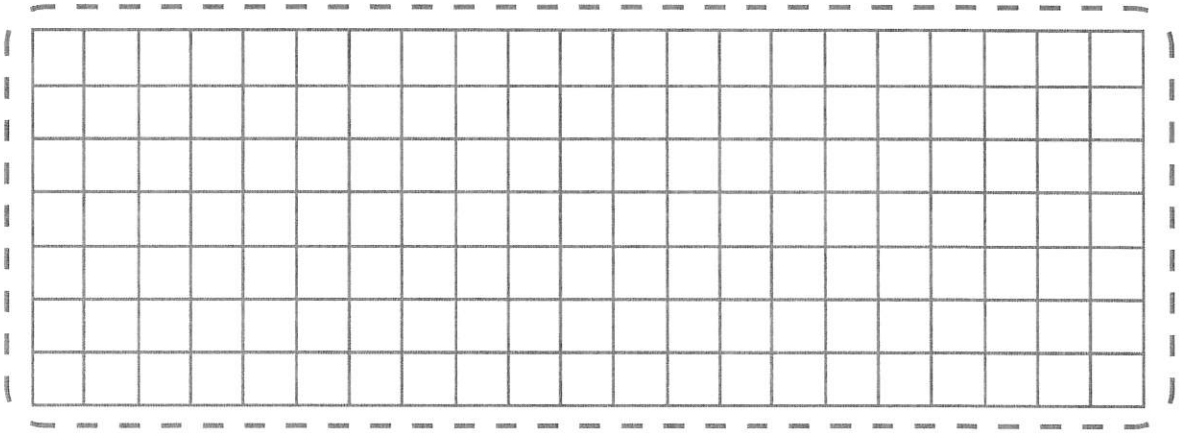
Name:_____ Date: March 31, 2020

Complete: ☐ Class:_____

1 Draw a trapezoid.



2 Draw a trapezoid with at least one right angle.



Name _____ Date March 31, 2020

1. Draw a pair of parallel lines in each box. Then, use the parallel lines to draw a trapezoid with the following:

a. No right angles.	b. Only 1 obtuse angle.
c. 2 obtuse angles.	d. At least 1 right angle.

2. Use the trapezoids you drew to complete the tasks below.

   a. Measure the angles of the trapezoid with your protractor, and record the measurements on the figures.

   b. Use a marker or crayon to circle pairs of angles inside each trapezoid with a sum equal to 180°. Use a different color for each pair.

3. List the properties that are shared by all the trapezoids that you worked with today.

4. When can a quadrilateral also be called a trapezoid?

5. Follow the directions to draw one last trapezoid.

   a. Draw a segment $\overline{AB}$ parallel to the bottom of this page that is 5 cm long.

   b. Draw two 55° angles with vertices at A and B so that an isosceles triangle is formed with $\overline{AB}$ as the base of the triangle.

   c. Label the top vertex of your triangle as C.

   d. Use your set square to draw a line parallel to $\overline{AB}$ that intersects both $\overline{AC}$ and $\overline{BC}$.

   e. Shade the trapezoid that you drew.

Wednesday, April 1, 2020

Problem 60

The members of a cross country team like to continue training on their own during the summer. Nero ran $1\frac{1}{2}$ miles one day. Jorge ran $\frac{3}{4}$ times as far as Nero. How far did Jorge run?

- **Question**: What do you need to solve? Underline in the problem and rewrite below.

- **Information:** What information do you know? List below.

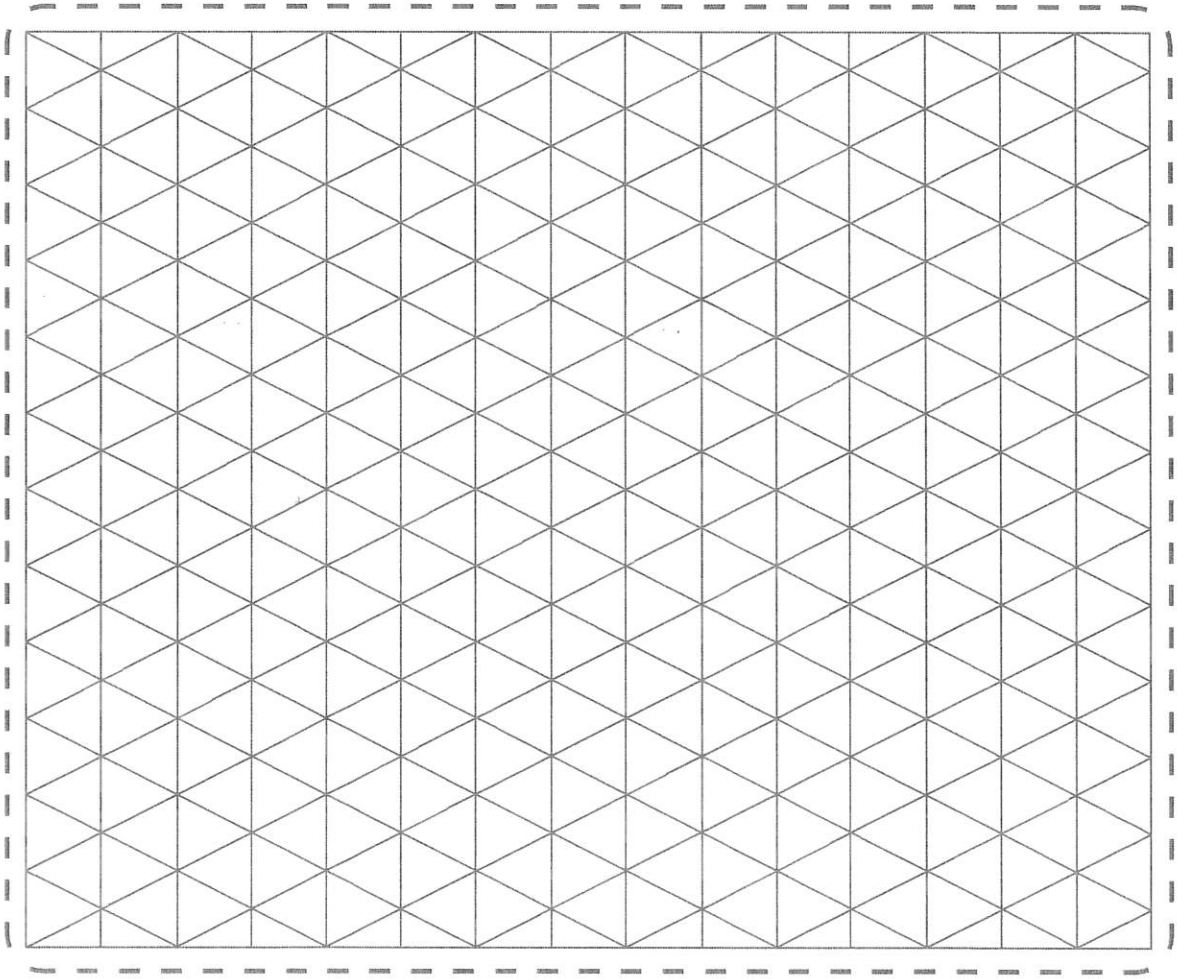
- **Model and Solve**: How can you model the situation (ex: equation, picture, table, graph, tape diagram, organized list, double number line, etc.)? Solve using your model.

Lesson 17 G:5 M:5	Parallelogram Properties
	ZEARN STUDENT NOTES

Name:_____ Date: April 1, 2020

Complete: ☐ Class:_____

1 Draw a parallelogram.



Name _____ Date April 1, 2020

1. Draw a parallelogram in each box with the attributes listed.

a. No right angles.	b. At least 2 right angles.
c. Equal sides with no right angles.	d. All sides equal with at least 2 right angles.

2. Use the parallelograms you drew to complete the tasks below.

   a. Measure the angles of the parallelogram with your protractor, and record the measurements on the figures.

   b. Use a marker or crayon to circle pairs of angles inside each parallelogram with a sum equal to 180°. Use a different color for each pair.

3. Draw another parallelogram below.

   a. Draw the diagonals, and measure their lengths. Record the measurements to the side of your figure.

   b. Measure the length of each of the four segments of the diagonals from the vertices to the point of intersection of the diagonals. Color the segments that have the same length the same color. What do you notice?

4. List the properties that are shared by all of the parallelograms that you worked with today.

   a. When can a quadrilateral also be called a parallelogram?

   b. When can a trapezoid also be called a parallelogram?

Problem 61

There are 60 students in the choir. $\frac{1}{3}$ are male students. Of the female students, $\frac{1}{4}$ are new to choir. How many female students are new to choir?

- **Question**: What do you need to solve? Underline in the problem and rewrite below.

- **Information:** What information do you know? List below.

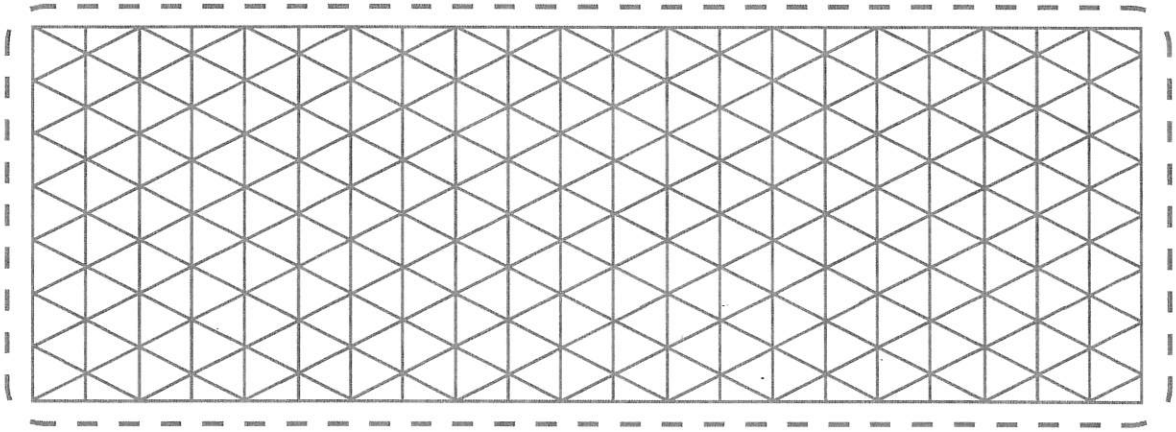
- **Model and Solve**: How can you model the situation (ex: equation, picture, table, graph, tape diagram, organized list, double number line, etc.)? Solve using your model.

Lesson 18 G:5 M:5	Rhombuses and Rectangles
	ZEARN STUDENT NOTES

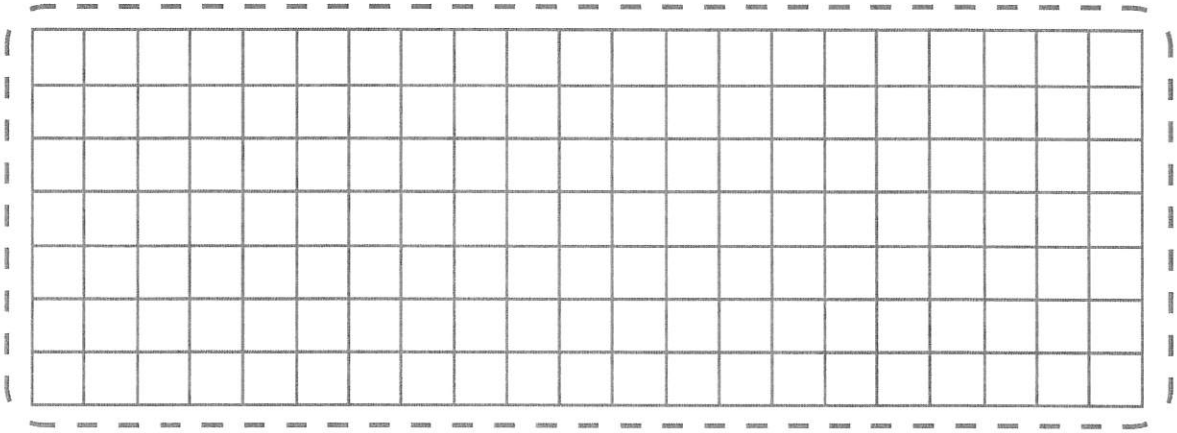
Name:_____ Date:April 2, 2020

Complete: ☐ Class:_____

1 Draw a rhombus.



2 Draw a rectangle.



Name _____ Date April 2, 2020

1. Draw the figures in each box with the attributes listed.

a. Rhombus with no right angles	b. Rectangle with not all sides equal
c. Rhombus with 1 right angle	d. Rectangle with all sides equal

2. Use the figures you drew to complete the tasks below.

   a. Measure the angles of the figures with your protractor, and record the measurements on the figures.

   b. Use a marker or crayon to circle pairs of angles inside each figure with a sum equal to 180°. Use a different color for each pair.

3. Draw a rhombus and a rectangle below.

   a. Draw the diagonals, and measure their lengths. Record the measurements on the figure.

   b. Measure the length of each segment of the diagonals from the vertex to the intersection point of the diagonals. Using a marker or crayon, color segments that have the same length. Use a different color for each different length.

4. a. List the properties that are shared by all of the rhombuses that you worked with today.

   b. List the properties that are shared by all of the rectangles that you worked with today.

   c. When can a trapezoid also be called a rhombus?

   d. When can a parallelogram also be called a rectangle?

   e. When can a quadrilateral also be called a rhombus?

Friday, April 3, 2020

Problem 62

After a class potluck, Emily has 3 equally sized apple pies left and she wants to divide them into 8 equal portions to give to 8 students who want to take some pie home.
What fraction of a pie will each of the eight students get?

- **Question**: What do you need to solve? Underline in the problem and rewrite below.

- **Information:** What information do you know? List below.

- **Model and Solve**: How can you model the situation (ex: equation, picture, table, graph, tape diagram, organized list, double number line, etc.)? Solve using your model.

Lesson 15 G:5 M:5	EXIT TICKET

Name:_____ Date:April 3, 2020

Complete: ☐ Class:_____

1. Wheat grass is grown in planters that are $3\frac{1}{2}$ inches by $1\frac{3}{4}$ inches.

   If there is a 6 × 6 array of these planters with no space between them, what is the area covered by the planters?

Lesson 16 G:5 M:5	EXIT TICKET

Name:_____ Date: April 3, 2020

Complete: ☐ Class:_____

1. Use a ruler and a set square to draw a trapezoid.

2. What attribute must be present for a quadrilateral to also be a trapezoid?

Lesson 17 G:5 M:5	EXIT TICKET

Name:_____ Date: April 3, 2020

Complete: ☐ Class:_____

1. Draw a parallelogram.

2. When is a trapezoid also called a parallelogram?

Lesson 18 G:5 M:5	EXIT TICKET

Name:_____ Date: April 3, 2020

Complete: ☐ Class:_____

1. Draw a rhombus.

2. Draw a rectangle.

Problem 63

Kendra is making $\frac{1}{2}$ of a recipe. The full recipe calls for $3\ \frac{1}{4}$ cup of flour. How many cups of flour should Kendra use?

- **Question**: What do you need to solve? Underline in the problem and rewrite below.

- **Information:** What information do you know? List below.

- **Model and Solve**: How can you model the situation (ex: equation, picture, table, graph, tape diagram, organized list, double number line, etc.)? Solve using your model.

Name _____ Date April 6, 2020

1. Draw the figures in each box with the attributes listed. If your figure has more than one name, write it in the box.

a. Rhombus with 2 right angles	b. Kite with all sides equal
c. Kite with 4 right angles	d. Kite with 2 pairs of adjacent sides equal (The pairs are not equal to each other.)

2. Use the figures you drew to complete the tasks below.

   a. Measure the angles of the figures with your protractor, and record the measurements on the figures.

   b. Use a marker or crayon to circle pairs of angles that are equal in measure, inside each figure. Use a different color for each pair.

3. a. List the properties shared by all of the squares that you worked with today.

b. List the properties shared by all of the kites that you worked with today.

c. When can a rhombus also be called a square?

d. When can a kite also be called a square?

e. When can a trapezoid also be called a kite?

Tuesday, April 7, 2020

Problem 64

Everett ate $\frac{2}{5}$ gallon of ice cream. Then he ate $\frac{1}{2}$ gallon of ice cream. How much more ice cream is left in the gallon?

- **Question**: What do you need to solve? Underline in the problem and rewrite below.

- **Information:** What information do you know? List below.

- **Model and Solve**: How can you model the situation (ex: equation, picture, table, graph, tape diagram, organized list, double number line, etc.)? Solve using your model.

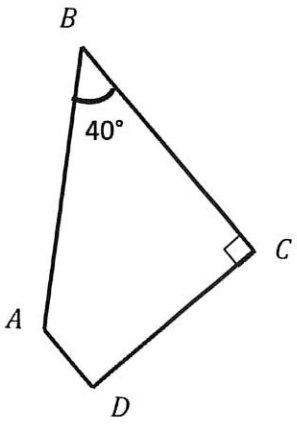
Name _____ Date April 7, 2020

1. True or false. If the statement is false, rewrite it to make it true.

	T	F
a. All trapezoids are quadrilaterals.		
b. All parallelograms are rhombuses.		
c. All squares are trapezoids.		
d. All rectangles are squares.		
e. Rectangles are always parallelograms.		
f. All parallelograms are trapezoids.		
g. All rhombuses are rectangles.		
h. Kites are never rhombuses.		
i. All squares are kites.		
j. All kites are squares.		
k. All rhombuses are squares.		

2. Fill in the blanks.

a. $ABCD$ is a trapezoid. Find the measurements listed below.



$\angle A =$ _____°

$\angle D =$ _____°

What other names does this figure have?

b. $RECT$ is a rectangle. Find the measurements listed below.

Line $TE =$ _____

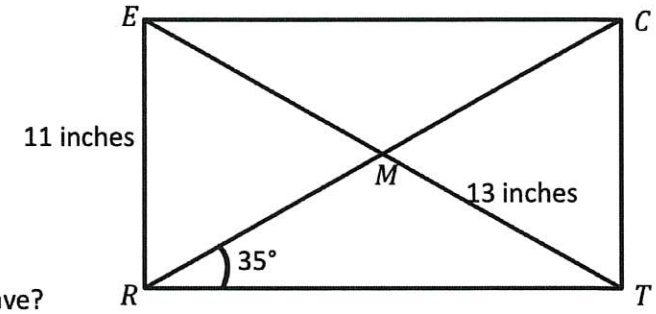
Line $RC =$ _____

Line $CT =$ _____

$\angle ERM =$ _____°

$\angle CTR =$ _____°

What other names does this figure have?



c. $PARL$ is a parallelogram. Find the measurements listed below.

Line $AL =$ _____

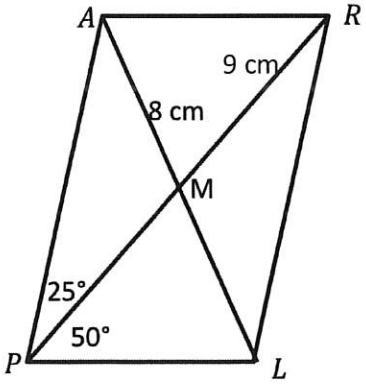
Line $PR =$ _____

$\angle ARL =$ _____°

$\angle PAR =$ _____°

$\angle RLP =$ _____°

What other names does this figure have?



Wednesday, April 6, 2020

Problem 65

Phoenix mixed $\frac{1}{2}$ gallon blue paint with $\frac{3}{16}$ gallon white paint. How much paint did Phoenix have once the blue and white paint were mixed?

- **Question**: What do you need to solve? Underline in the problem and rewrite below.

- **Information:** What information do you know? List below.

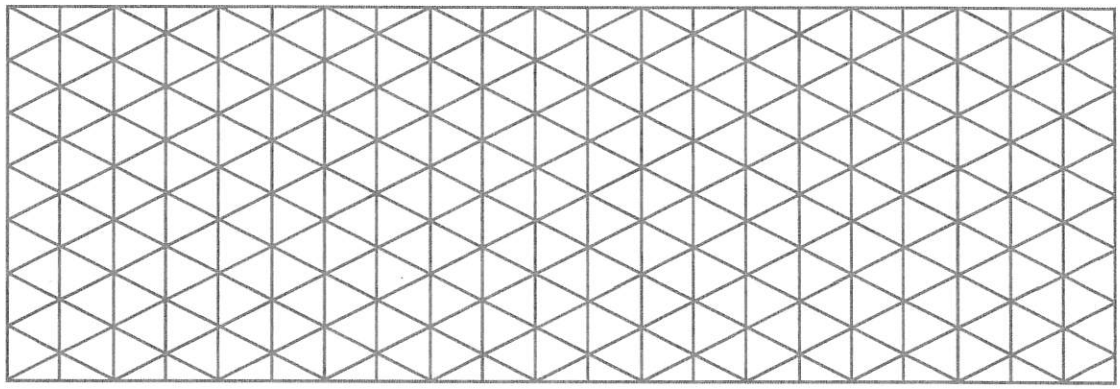
- **Model and Solve**: How can you model the situation (ex: equation, picture, table, graph, tape diagram, organized list, double number line, etc.)? Solve using your model.

Lesson 21 G:5 M:5	Shape Reader
	ZEARN STUDENT NOTES

Name:_____ Date: April 8, 2020

Complete: ☐ Class:_____

1 Draw a parallelogram with no right angles.



2 List as many names as you can for this shape using the word bank below. Circle the most specific name.

Square
Quadrilateral
Rhombus
Rectangle
Trapezoid
Parallelogram

- _____
- _____
- _____

Name _____ Date April 8, 2020

1. Write the number on your task card and a summary of the task in the blank. Then, draw the figure in the box. Label your figure with as many names as you can. Circle the most specific name. Tasks are on the following page.

Task #___: _____	Task #___: _____
Task #___: _____	Task #___: _____
Task #___: _____	Task #___: _____

Task Cards 1-6 (Template 1)

Task 1: Draw a trapezoid with a right angle.	Task 2: Draw a rectangle with a length that is twice its width.	Task 3: Draw a quadrilateral with 2 pairs of equal sides and no parallel sides.
Task 4: Draw a rhombus with right angles.	Task 5: Draw a parallelogram with two pairs of perpendicular sides.	Task 6: Draw a rhombus with 4 equal angles.

2. John says that because rhombuses do not have perpendicular sides, they cannot be rectangles. Explain his error in thinking.

3. Jack says that because kites do not have parallel sides, a square is not a kite. Explain his error in thinking.

5th Grade

Week of 3/16	Day 0	Day 1	Day 2
Objective	SWBAT review Earth's rotation and revolution	SWBAT explain why the Sun and moon appear to move from East to West in the sky	SWBAT explain what causes day and night on Earth
Assignment Read the pages assigned and answer any questions associated	p. 410-413	Foss pages 1-3 Handout	What Causes Day and Night p.69-72
To Be Graded	N/A	Day 1 Assignment	Day 2 Assignment: p. 71-72

Week of 3/23	Day 3	Day 4
Objective	SWBAT describe stars and constellations	SWBAT explain why the brightness of stars changes from our view on Earth
Assignment Read the pages assigned and answer any questions associated	p.89-90 P. 65	Stars Article
To Be Graded	Day 3 Assignment	Stars Worksheet Day 4 Assignment

Updated 3/18/2020

Week of 3/30	Day 5	Day 6	Day 7
Objective	SWBAT explain why stars and constellations appear to move from East to West throughout the night	SWBAT explain why constellations appear seasonally	SWBAT Review Concepts from Module 4
Assignment Read the pages assigned and answer any questions associated	Foss Page 37 (top) In Readings Section	Foss Pages 37 (bottom) -Page 39 In Readings Section	Review Module 4 key Points P. 1-4 in Readings Section Foss p. 4-7 Shadows In reading Section Review any readings previously assigned
To Be Graded	Day 5 Assignment p. .1-2 of Assignments Section	Day 6 Assignment p. 3-6 of Assignments Section	Day 7 Assignment p. 7-10 of Assignments Section

Week of 4/6	Day 8	Day 9
Objective	SWBAT Take the Unit Assessment	**No Instruction Friday- Spring Break 4/9-4/13**
Assignment Read the pages assigned and answer any questions associated	5th module 4 Unit Assessment p. 11-19 of Assignments Section	
To Be Graded	5th module 4 Unit Assessment p. 11-19 of Assignments Section	

Updated 3/18/2020

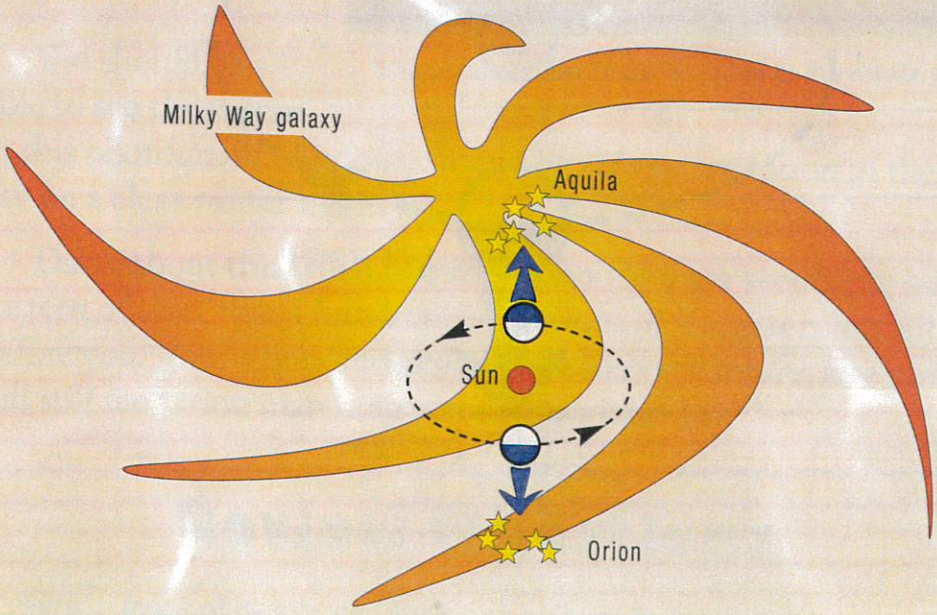
READINGS

Constellations in Motion

Even though the stars don't change position, they appear to move across the night sky. Stars move across the sky for the same reason that the Sun and Moon move across the sky. The stars are not moving. Earth is moving. As Earth **rotates** on its **axis,** constellations rise in the east. They travel across the night sky and set in the west.

If you look at the stars every day for a year, you will see something interesting. The stars you see in the winter are different than the stars you see in the summer. If the stars don't move around, how is that possible? To see why, we have to look at how Earth orbits the Sun.

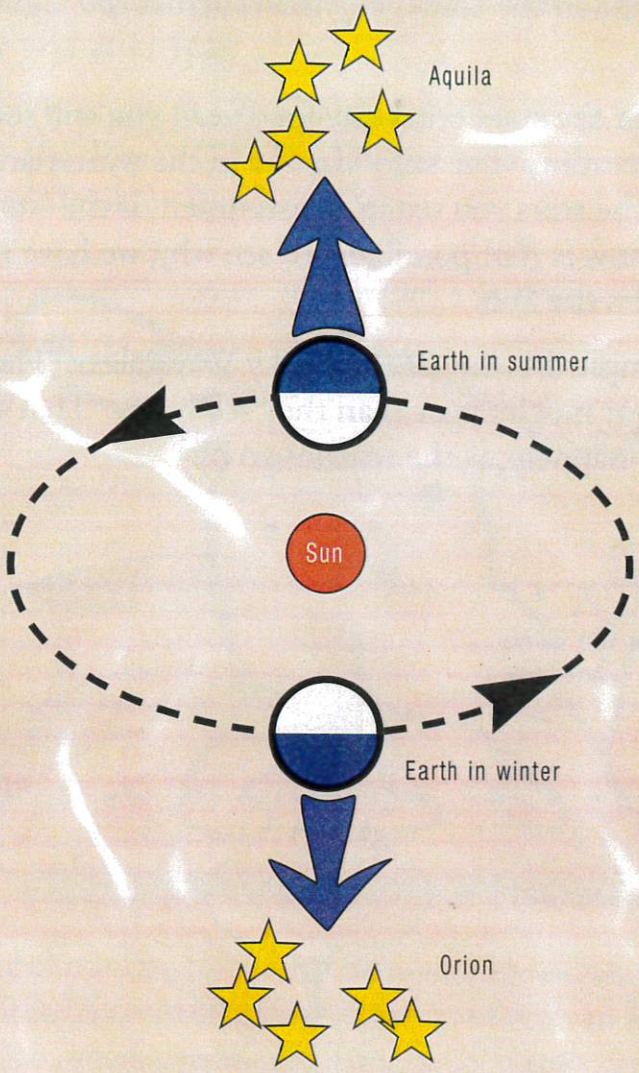
Here is a simple drawing of the Milky Way galaxy. The Sun and Earth appear much larger than they really are. That's so we can study what happens as the seasons go by.



A simple drawing of the Sun and Earth, not drawn to scale

The side of Earth facing the Sun is always in daylight. The side facing away from the Sun is always in darkness. You can only see stars when you are on the dark half of Earth.

When it is summer in California, Earth is between the Sun and the center of the Milky Way galaxy. The constellation Aquila is in that direction. The dark side of Earth is toward the center of the galaxy in the summer. On a summer night you see Aquila high overhead.



A simple drawing of the Sun and Earth, not drawn to scale

Six months later, Earth is on the other side of the Sun. It is winter in California. Now the dark side of Earth faces away from the center of the galaxy. The constellation Orion is in that direction. On a winter night you see Orion high overhead.

This is Orion. Can you see his belt and sword? The most important stars in the Orion constellation are in this pattern.

The constellation Orion is visible in the winter sky.

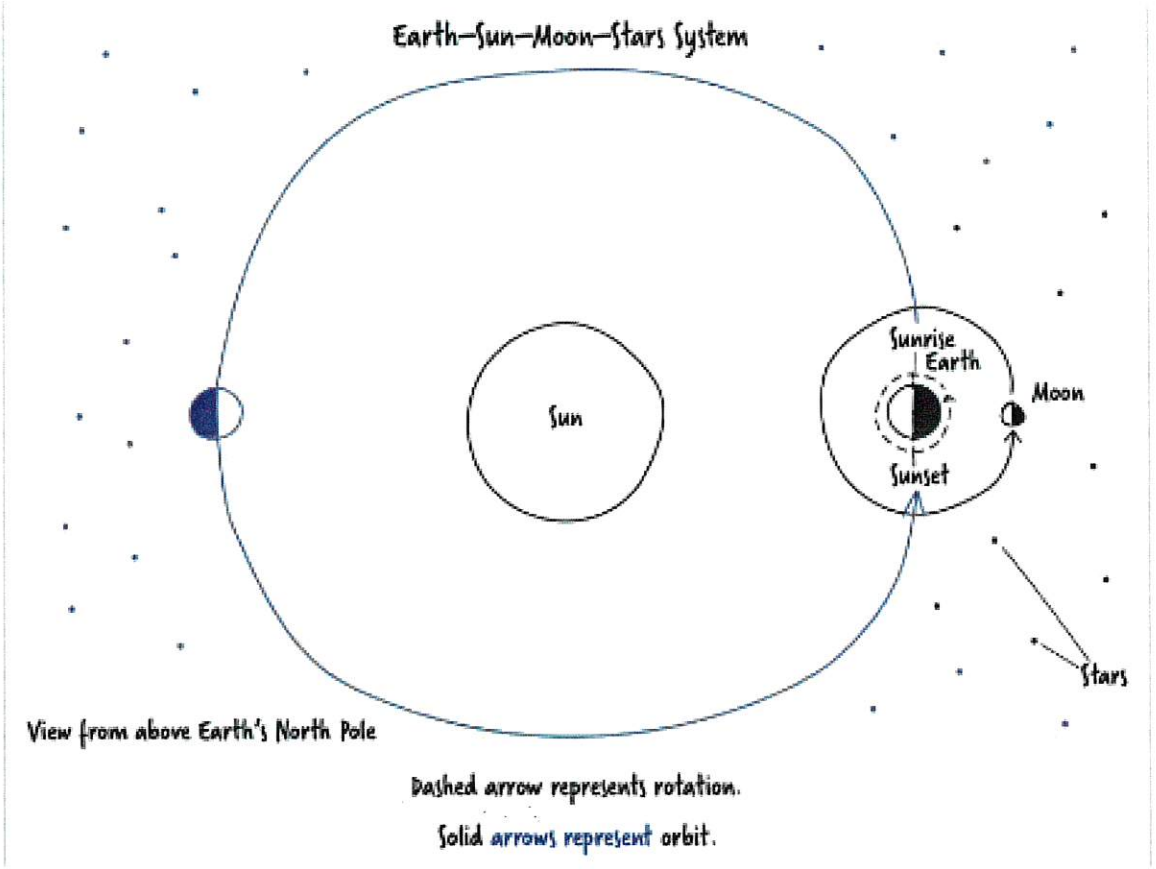
You should be able to see those stars in this photograph. And you should be able to see Orion in the sky on a clear winter night.

Think about this when you see Orion. You are seeing the same pattern of stars that a hundred generations of stargazers looked at before you. And a hundred generations into the future, stargazers will still see Orion marching across the winter sky.

Review Questions

1. **Why do stars move across the night sky?**
2. **What is a constellation?**
3. **Why are the constellations seen in the summer sky different than those seen in the winter sky?**
4. **Imagine that you could see stars during the daytime. What constellation would you see at noon in the winter? Why do you think so?**

Earth, Moon, Sun System



- The Earth rotates on its axis once a day, while it orbits the moon once a year.
- These movements cause: the movement of the Sun, moon and stars, from East to West across the side, day and night, the difference in shadows throughout the day, and the seasonal appearance of stars and constellations
- The Moon orbits the Earth.

Gravity

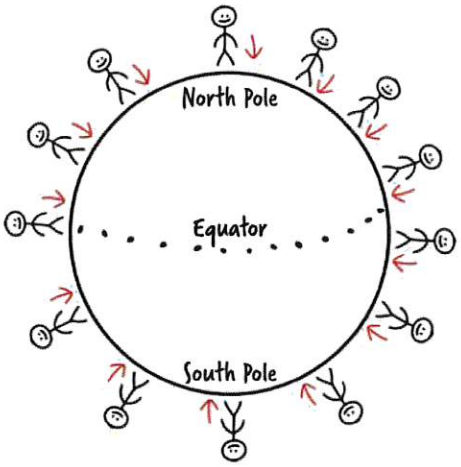
Gravity

Earth Perspective

- Gravity pulls objects toward Earth's center.
- Earth's atmosphere affects what we see in the sky.

Space Perspective

- Earth's gravity pulls air particles into a layer around Earth, forming the atmosphere.



Gravity pulls everything toward the center of Earth. We saw evidence that soccer balls fall down toward the ground on all continents. From the perspective of outer space, the direction of "toward the ground" is a different direction in different locations.

The Sun

The Sun

Earth Perspective

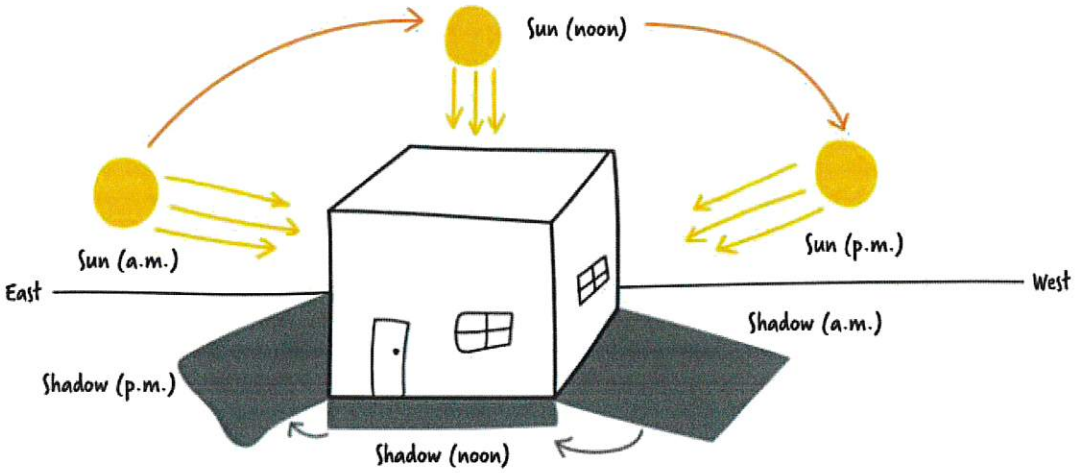
- The Sun appears to move from east to west across the sky, causing shadows to move throughout a day.
- Daytime occurs when the Sun is in the sky.
- The Sun appears larger and brighter than other stars.

Space Perspective

- The Sun appears to move throughout a day because Earth rotates counterclockwise on its axis once per day (24 hours).
- The Sun is a star, and it is much closer to Earth than other stars.

- The side of the Earth that faces the Sun expereinces daytime. The side opposite the Sun experiences nighttime.

- As the Sun changes positions throughout the day it causes the length and direction of shadows to form.



- In the morning, shadows are longer and point West
- In the evening, shadows are longer and point East
- Around noon, shadows are very short and don't point in a specific direction, as the Sun is overhead.

The Moon

The Moon	
Earth Perspective	Space Perspective
• The Moon appears to move from east to west across the sky.	• The Moon appears to move throughout a day because Earth rotates counterclockwise on its axis once per day.

The Stars

Stars

Earth Perspective

- Stars appear to move from east to west across the sky.
- Certain stars are only visible at certain times of the year.
- Polaris is visible from the Northern Hemisphere all year long.

Space Perspective

- Stars appear to move throughout a day because Earth rotates counterclockwise on its axis once per day.
- Most stars are very far away from Earth.
- Stars produce their own light.
- The visibility of stars changes as Earth orbits the Sun once per year.

Changing Shadows

Objects, such as people, buildings, and flagpoles, have **shadows** on sunny days. That's because solid objects block the **sunlight.** Shadows give information about the position of the Sun. What if you see your shadow in front of you? You would know the Sun is behind you.

Did you know a shadow can tell you what time of day it is? Here's how. Pretend you are standing in the picture below. You are facing south. North is behind you. It's 12:00 noon. The Sun is in the south and high overhead.

Look at the shadow of the flagpole in illustration 1. What direction is it pointing? It is pointing straight north. And it is short. When a shadow points north, the time is about 12:00 noon.

What did the shadow look like at 9:00 this morning? Do you remember what direction your shadow pointed in the morning? Do you remember how long it was?

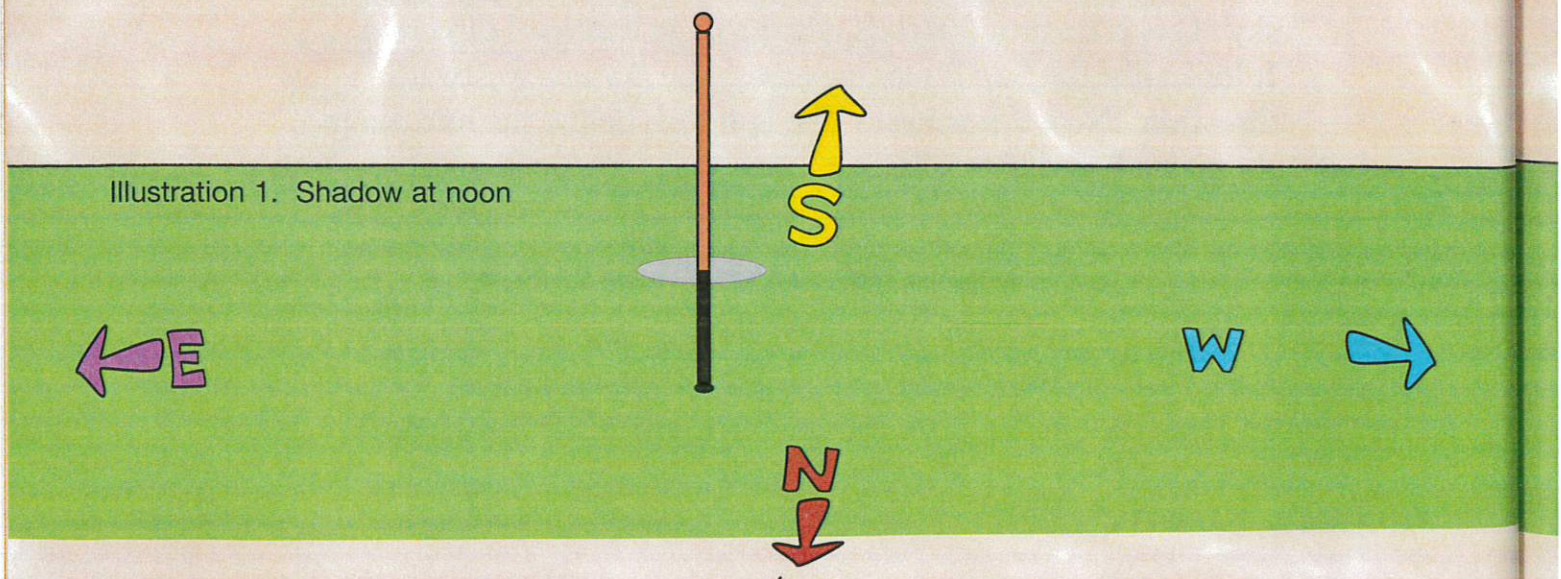


Illustration 1. Shadow at noon

Illustration 2 shows the flagpole at 9:00 in the morning. The flagpole casts a long shadow and the shadow points west. But the shadow doesn't point straight west. It points a little bit north, too. The direction between north and west is called northwest.

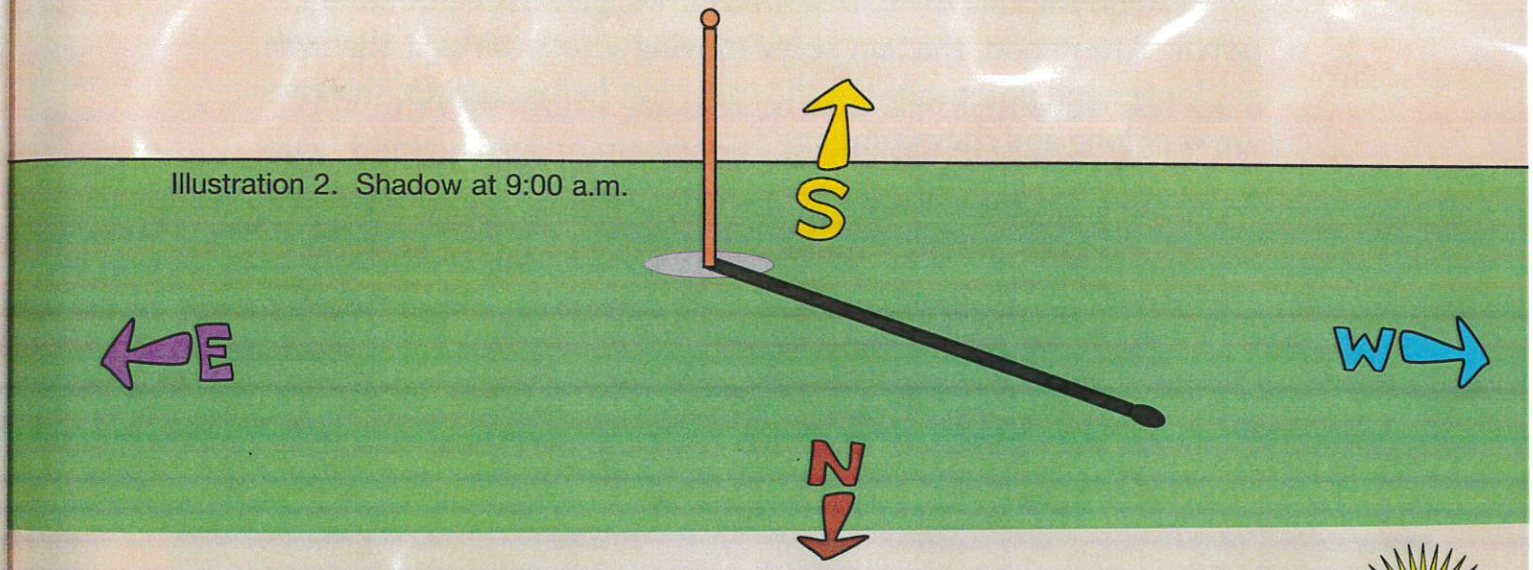


Illustration 2. Shadow at 9:00 a.m.

What will happen to the shadow in the afternoon? By 3:00 in the afternoon, the shadow is long again. Illustration 3 shows the shadow pointing east. Actually, it is pointing northeast. The Sun has moved across the sky and looks low in the west. In a few more hours the Sun will set in the west.

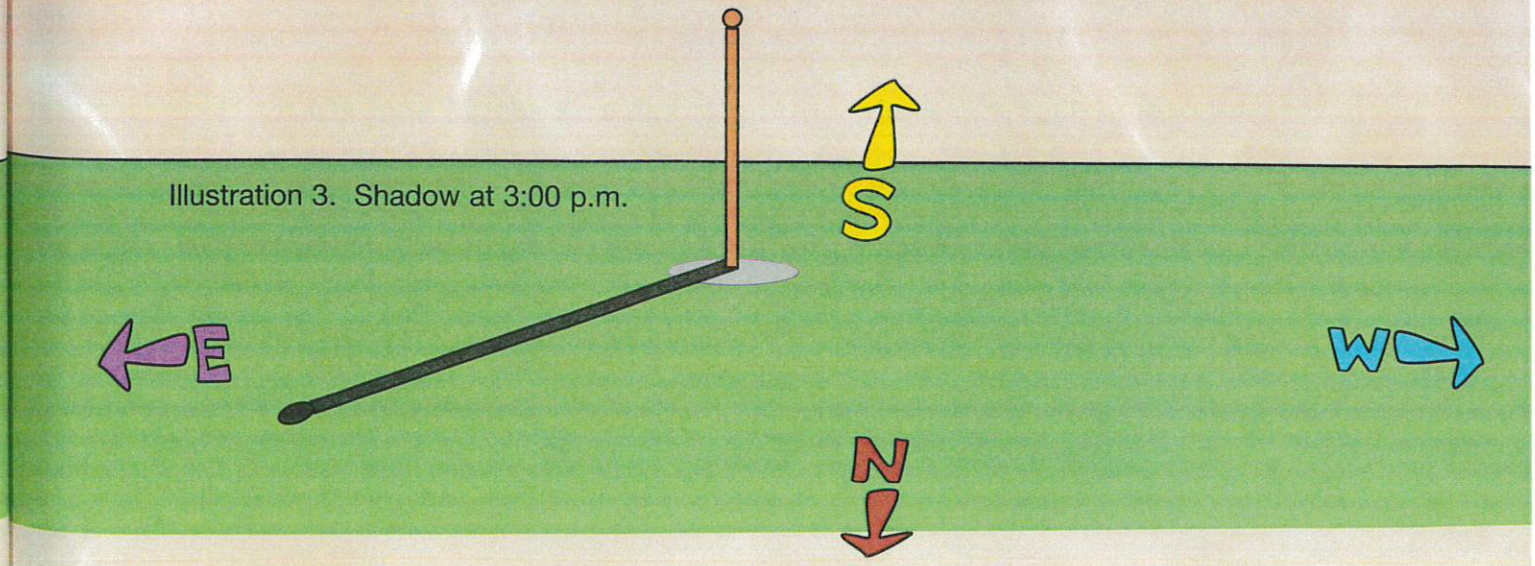
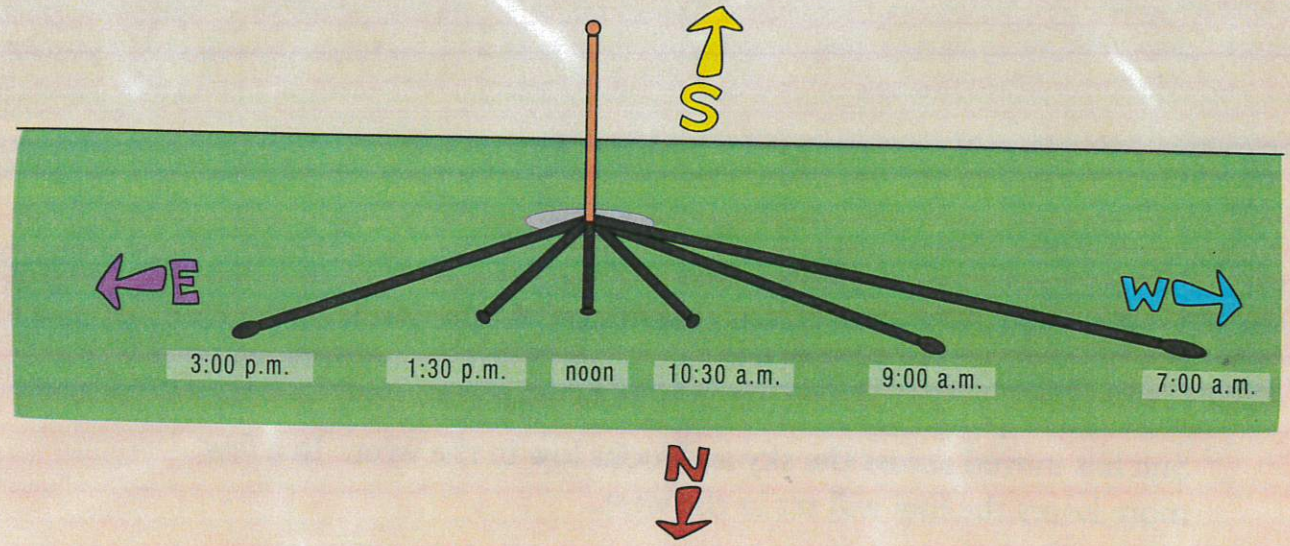


Illustration 3. Shadow at 3:00 p.m.

Two things happen to shadows between sunrise and sunset. Early in the morning, shadows are long and they point west. As time passes, the Sun rises higher in the sky. The Sun is moving from east to west. As the Sun moves, shadows get shorter and shorter. And they point more and more north.

At noon the shadow is as short as it will get. It points straight north. After noon, the Sun keeps moving across the sky. Shadows get longer and point more to the east. Just before sunset, shadows are very long and they point east.

See how shadows can work like a clock? Here is a picture with several shadows and their times. All you need is a pole in the ground and a sunny day.



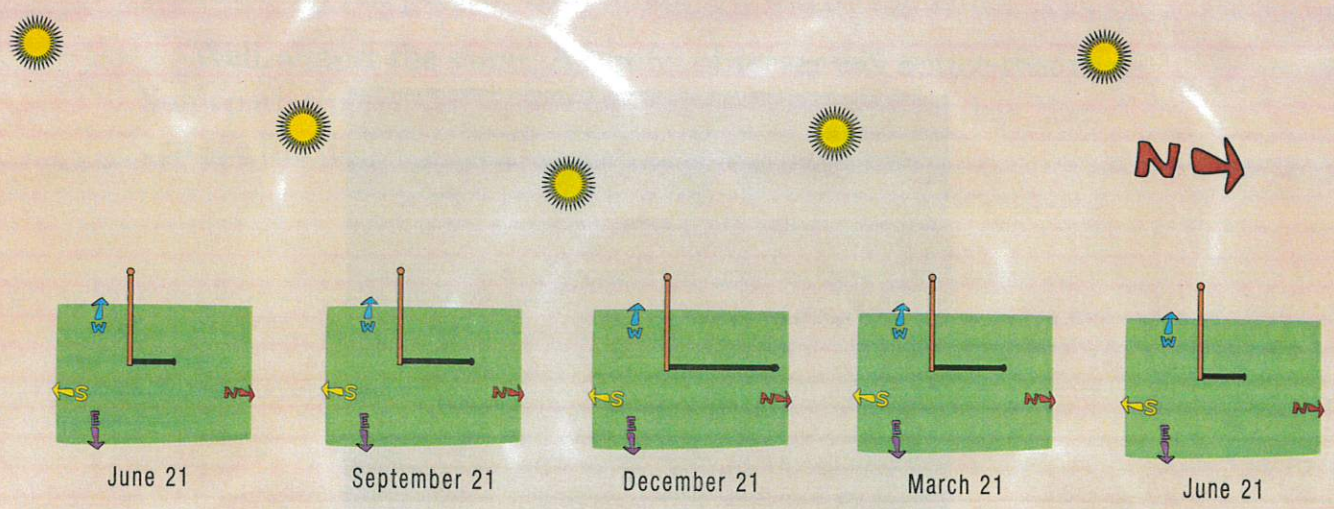
Sun and Seasons

Shadows can tell us even more about the movement of the Sun. We know the Sun moves across the sky from east to west every day. But did you know that the Sun also changes position in the sky from **season** to season? Here's how you can prove it.

Pretend you are looking at the flagpole again. But this time you are standing on the east side of the pole facing west. North is to your right and south is to your left.

For this experiment you have to measure the shadow at noon only. But you have to measure it every day for a year!

Here are the noon shadows for just five times during the year. Look at the length of the shadow and the position of the Sun in the sky on each date.



Sun position and shadow length at noon on 5 days during a year

On June 21, the first day of summer, the Sun is high in the sky at noon. Three months later, on September 21, the first day of fall, the Sun is lower. And on December 21, the first day of winter, the Sun is at its lowest noon position. After December 21 the Sun begins to climb higher in the sky again. On March 21 it is as high as it was in September. One year after starting the experiment, on June 21, the Sun is again at its highest noon position.

ASSIGNMENTS

5th Day 5 Assignment

Name: _____

Key Ideas

Stars

Earth Perspective

- Stars appear to move from east to west across the sky.

Space Perspective

- Stars appear to move throughout a day because Earth rotates counterclockwise on its axis once per day.
- Most stars are very far away from Earth.
- Stars produce their own light.

Questions to Answer:

1. Why do stars move across the night sky?

_____

_____

_____

_____

_____

_____

2. Based on what you have learned so far in this module, list and describe 3 phenomena that Earth's rotation causes.

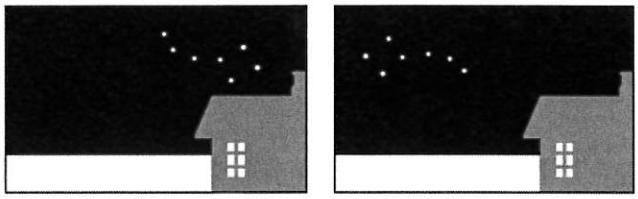
_____

_____

_____

_____

3. The Little Dipper is a group of stars. During the night, the Little Dipper appears to change position in the sky.



Which of these statements *best* explains why the Little Dipper appears to change positions in the night sky?

A. Earth rotates on its axis.
B. Earth revolves around the stars.
C. The Little Dipper moves around the Sun.
D. The stars in the Little Dipper move in the sky.

4. Which of the following correctly describes the Little Dipper?

A. It is a comet
B. It is a constellation
C. It is a planet
D. It is a solar system

5. Two students notice that the constellation Scorpio is directly overhead as they enter a building. When they leave the building several hours later, Scorpio is no longer directly overhead. Explain your answer using evidence.

Name: _____

Key Ideas

Stars

Earth Perspective

- Stars appear to move from east to west across the sky.
- Certain stars are only visible at certain times of the year.
- Polaris is visible from the Northern Hemisphere all year long.

Space Perspective

- Stars appear to move throughout a day because Earth rotates counterclockwise on its axis once per day.
- Most stars are very far away from Earth.
- Stars produce their own light.
- The visibility of stars changes as Earth orbits the Sun once per year.

Questions to Answer:

1. Why are the constellations seen in the summer sky different than those seen in the winter sky?

_____

_____

_____

_____

_____

_____

5th Day 6 Assignment

Students in Topeka, Kansas create a constellation chart to record when different constellations are visible throughout the year.

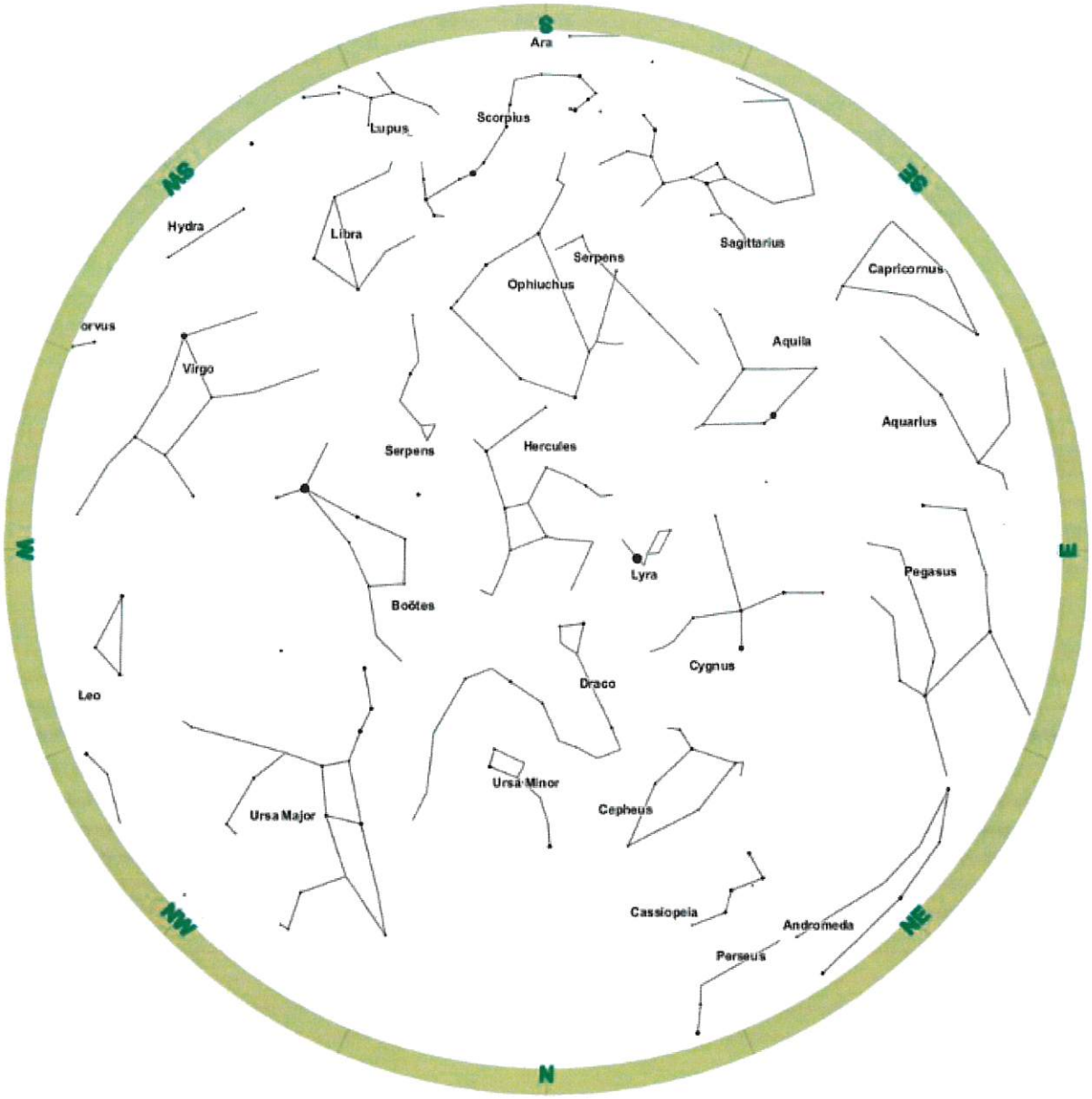
The chart below shows the different constellations they observed and which months they are present. A check denotes that the constellation was present that month.

Diagram of Constellations Visible in Topeka, Kansas Throughout the Year

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Ursa Major	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ursa Minor	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Canis Major	✓	✓	✓								✓	✓
Leo	✓	✓	✓	✓	✓	✓						
Orion	✓	✓	✓							✓	✓	✓
Cygnus					✓	✓	✓	✓	✓	✓	✓	
Virgo		✓	✓	✓	✓	✓	✓					
Hercules			✓	✓	✓	✓	✓	✓	✓			
Gemini	✓	✓	✓	✓						✓	✓	✓

5th Day 6 Assignment

The image below shows the night sky in Topeka, KS



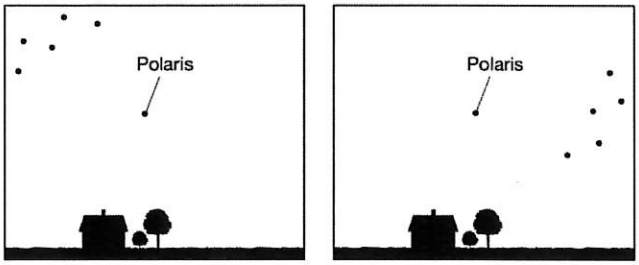
2. In what month could the students see this night sky? Use evidence from the diagram to support your answer.

3. In October, students saw the pattern of stars in the sky called Orion. In July, they could not see Orion.

Why was Orion no longer visible?

- **A.** The stars rotated around the Sun.
- **B.** Earth was tilted on its axis
- **C.** Earth revolves around the Sun
- **D.** The stars moved away from Earth.

Use the diagrams below to answer the question.



looking north
8:00 P.M. January 1

looking north
8:00 P.M. August 1

4. The diagrams show the constellation Cassiopeia as observed from the same position on Earth. What causes this constellation to appear in different parts of the sky in different months of the year?

- **A.** Earth's rotation on its axis.
- **B.** Earth's revolution around the Sun.
- **C.** Changing the phases of the Moon in its orbit around Earth.
- **D.** Changing the speeds of stars in their orbits around the Sun.

5. The constellation, Ursa minor, can be seen during some seasons in the year, but not during others. A student claims that this change in visibility is caused by the rotation of the Earth. Do you agree with this student? Explain your answer using evidence.

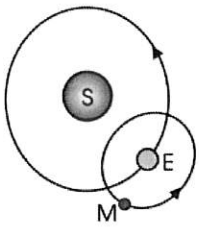
5th Day 7 Assignment

Name: _____

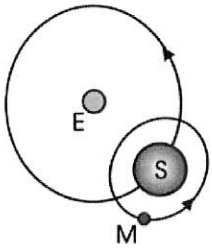
Questions to Answer

1. Which diagram correctly shows the movement of the Earth (E), the moon (M) and the sun (S)?

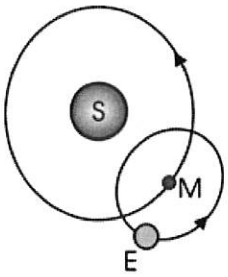
A.



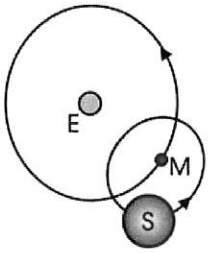
B.



C.



D.



2. What causes day and night?

- **A.** The tilt of Earth's axis
- **B.** The rotation of Earth on its axis
- **C.** Earth going around the Sun
- **D.** Earth going around the moon

3. Why do the Sun, moon and the stars appear to move from East to West throughout the day? Explain your answer.

_____

_____

_____

_____

The table below shows the characteristics of four stars.

Characteristics of Four Stars

Star	Estimated Surface Temperature (K)	Distance from Earth (light-years)	Size Compared to the Sun
1	5,800	4	slightly larger
2	5,300	20	slightly smaller
3	5,710	20	slightly larger
4	5,840	39	slightly smaller

4. Based on the table, which star appears brightest to an observer on Earth?

A. Star 1
B. Star 2
C. Star 3
D. Star 4

5. What evidence best supports your answer to question 4?

A. It is the hottest star
B. It is the largest star
C. It is closest to Earth
D. It is farthest from Earth

6. If the sun was moved farther away from Earth, how would that affect its appearance to a person on Earth? Explain your answer.

Students measured the length of a flagpole shadow several times during a day. The students recorded their data in the table below.

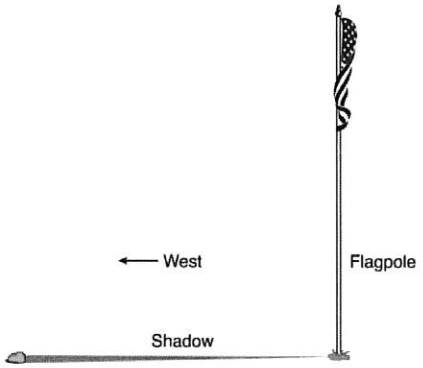
LENGTH OF FLAGPOLE SHADOW

Time of Day	Length of Shadow (meters)
10 A.M.	4
11 A.M.	2
Noon	0
1 P.M.	?

7. What is the length of the flagpole shadow at 1 p.m.?

A. 0 meters
B. 2 meters
C. 4 meters
D. 6 meters

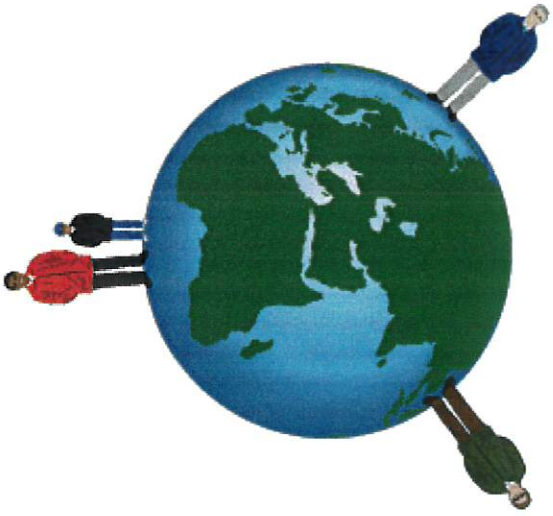
8. Edgar walked past the flagpole by the school at 9:00 A.M. He placed a rock at the end of its shadow (as shown in the picture).



9:00 A.M.

Edgar comes back at noon and records observations about the shadow of the flagpole. He then comes back at 2pm and records observations again. How will the length and the direction of the shadow change from noon to 2 pm? How will these compare to what he saw at 9 am?

9. Each man on the Earth drops an object. Add arrows to the diagram to show what direction each object falls. Then explain your answer using complete sentences.



Name: _____

April 6, 2020

CONTENT KNOWLEDGE

1. Which statement *best* describes the motion of the Earth?

- **A.** Its spins on its axis only.
- **B.** It spins on its axis as it orbits the moon.
- **C.** It spins as it orbits the Sun.
- **D.** It makes one complete turn on its axis as it orbits the Sun.

2. Why do the sun and moon appear to move across the sky?

- **A.** The rotation of the solar system makes the Sun and moon seem to move.
- **B.** The rotation of Earth makes the Sun and Moon seem to move.
- **C.** The Sun and Moon revolve around Earth.
- **D.** Earth revolves around the Sun and the moon.

3. Why do some stars appear brighter to observers on Earth?

- **A.** Those stars are the hottest burning stars.
- **B.** Those stars are the largest stars that are furthest away.
- **C.** Those stars release the most amount of light.
- **D.** Those stars are the closest.

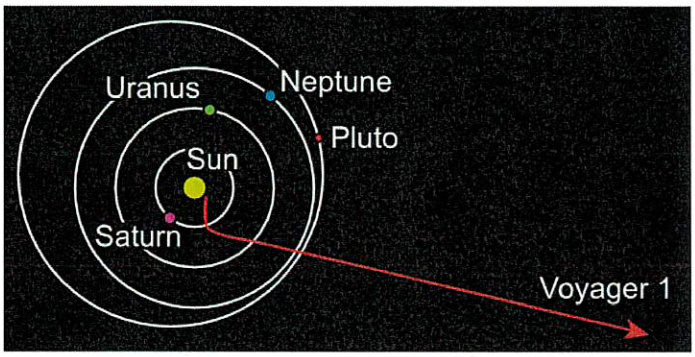
4. Which example provides the best evidence that gravity affects objects on Earth?

- **A.** Rain falling from the sky
- **B.** Leaves blowing in the wind
- **C.** Water evaporating from a puddle
- **D.** Light reaching your eye from the Sun

DISCRETE ITEMS

A space probe, called Voyager 1 was launched in 1977. Voyager 1 is traveling away from Earth and the Sun. Until 1990 it took pictures as it moved away from the Sun along the path shown in the diagram.

Path of Voyager 1



5. How did the appearance of the Sun change in the pictures taken by Voyager 1 as it moved along its path?

- **A.** The Sun appeared to become larger as Voyager 1 moved farther away from the Sun.
- **B.** The Sun appeared to become less bright as Voyager 1 moved farther away from the Sun.
- **C.** The Sun appeared to become a different color as Voyager 1 moved farther away from the Sun.
- **D.** The Sun appeared to become a different shape as Voyager 1 moved farther away from the Sun.

Use the information and your knowledge of science to answer the question

Alex is making observations of the moon. He notices at 8pm that the moon is in one position, but at 5am the moon appears to have moved to a slightly new position.

6. Which statement **best** describes why the moon appears to move throughout the night sky?

- **A.** As the Earth orbits the Sun, the moon appears to move positions to observers on Earth.
- **B.** As the Earth rotates, the moon appears to move positions to observers on Earth.
- **C.** As the Moon rotates, it appears to move positions to observers on Earth.
- **D.** As the Sun orbits the Earth, the moon appears to move positions to observers on Earth.

Use the information and your knowledge of science to answer the question

Mrs. Kelly's class researched different constellations. The students made this table to show the months that certain constellations can be seen. A checkmark means the constellation can be seen that month.

Months When Constellations Can Be Seen

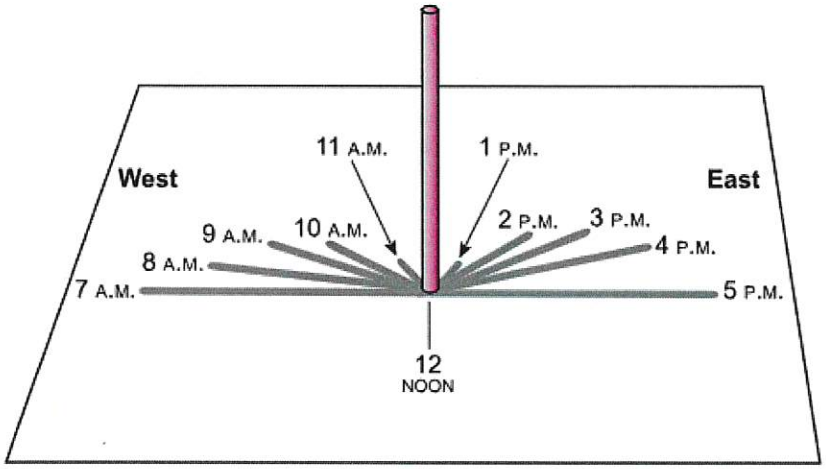
Constellation	January	February	March	April	May	June	July	August	September	October	November	December
Cancer	✓	✓	✓	✓	✓							✓
Aries	✓	✓	✓						✓	✓	?	✓
Scorpio					✓	✓	✓	✓				

7. Which statement **best** describes what belongs in the box that has the question mark and explains why?

- **A.** Nothing belongs in the box, because constellations change in the month of November.
- **B.** A checkmark belongs in the box, because there are no other constellations in the sky during November.
- **C.** Nothing belongs in the box, because constellations are sometimes hidden by other constellations.
- **D.** A checkmark belongs in the box, because Aries is a seasonal constellation and should be visible in every month of its season.

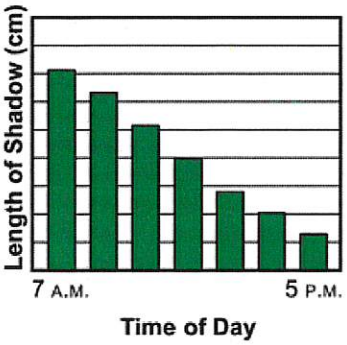
Use the information and your knowledge of science to answer the question.

Students place a piece of white poster board on the ground. They then place a short pole in the middle of the poster board. Once an hour on a sunny day, the students trace the shadow the pole makes on the poster board. The diagram shows the results.

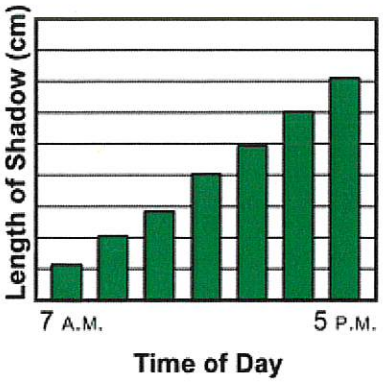


8. Which graph **best** represents how the length of shadows change throughout the day?

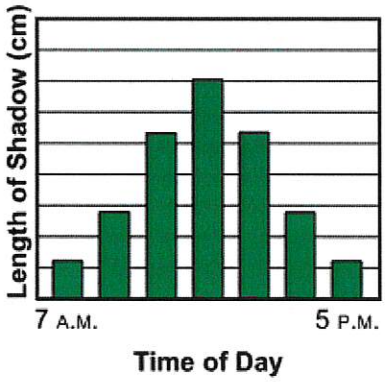
A.



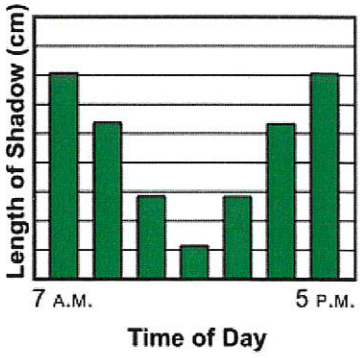
B.



C.

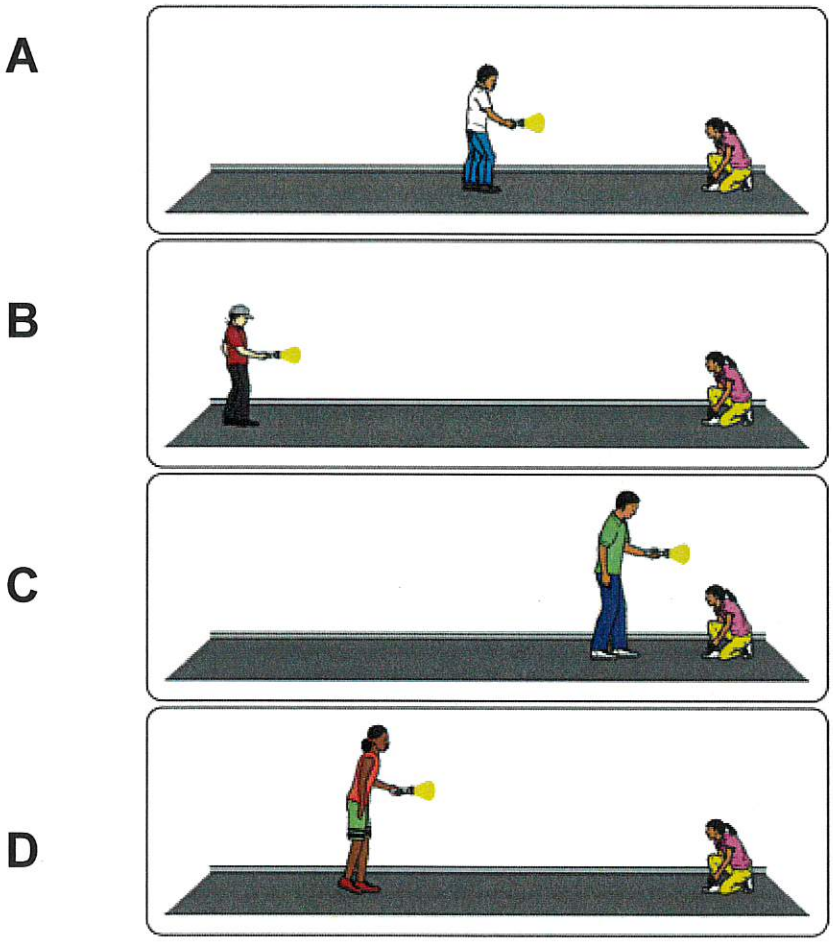


D.



Use the information and your knowledge of science to answer the questions

A teacher has her students stand in a dark hallway with flashlights. Everyone has the same kind of flashlight. One student stops to tie her shoelace. When she looks up, each of her classmates is at a different distance away. The figure below shows the distances that each of her classmates was from her.



Part A

9. Which of the following correctly orders the flashlights from the one that appears the brightest to the one that appears the dimmest?

A. D, C, B, A
B. B, D, A, C
C. C, A, D, B
D. A, B, C, D

Part B

10. Which claim **best** supports your answer to Part A?

A. The light is brighter when taller people hold the flashlight because the light reflects off the walls into the students eyes.

B. The light is brighter when the flashlight is closer because the light is more focused.

C. The light is brighter when the flashlight is farther away because the light can spread out.

D. The light is brighter when shorter people hold the flashlight because the light reflects off the student's clothes and into the student's eyes.

Use the information and your knowledge of science to answer the questions

A student observes what happens when he releases a wadded-up piece of paper, a baseball, and a rock from one meter above the ground at the same time. All three objects move in the same direction.

Part A

11. Which claim can be made based on the student's observations?

A. The volume of the objects causes the object to fall down toward Earth.

B. The rotation of Earth causes the objects to fall down toward Earth.

C. The density of the objects causes the objects to fall down toward the Earth.

D. The gravitational force of Earth causes the objects to fall down toward Earth.

Part B

12. Which piece of evidence **best** supports the answer to Part A?

A. The rock made the loudest noise when it hit the ground.

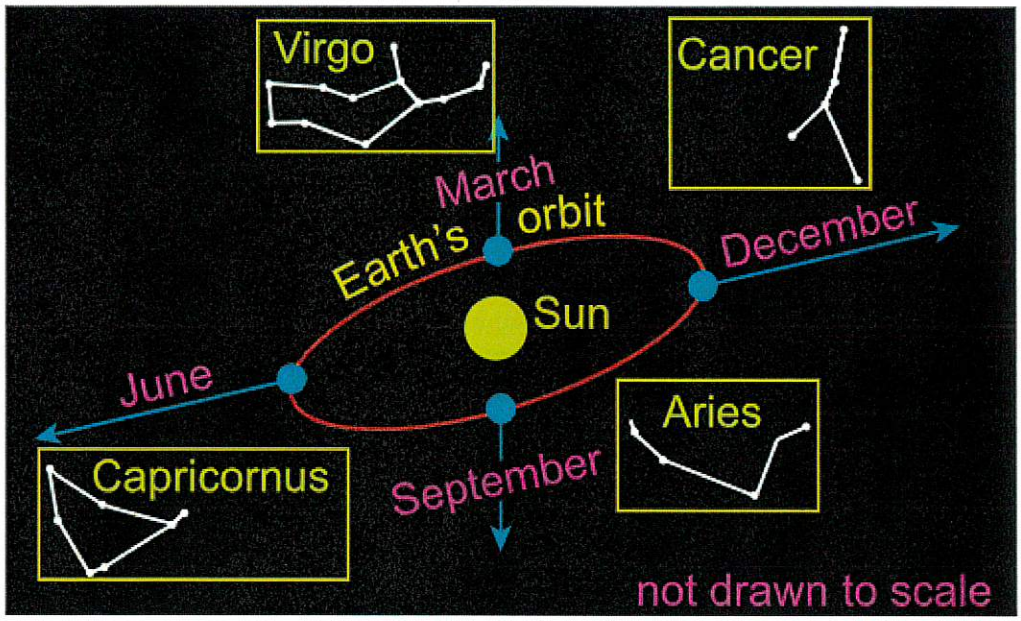
B. The baseball and the rock hit the ground just before the paper did.

C. The paper, the baseball, and the rock fell when the student let go of them.

D. The paper and the baseball bounced several times after they hit the ground.

Use the information and your knowledge of science to answer questions 3 and 4

Observers on Earth see different star constellations depending on the time of the year. The arrows on the diagram point to the part of the sky that is visible overhead for some observers on Earth at different times of the year.



13. Based on the diagram, which constellation will **most likely** be visible in April?

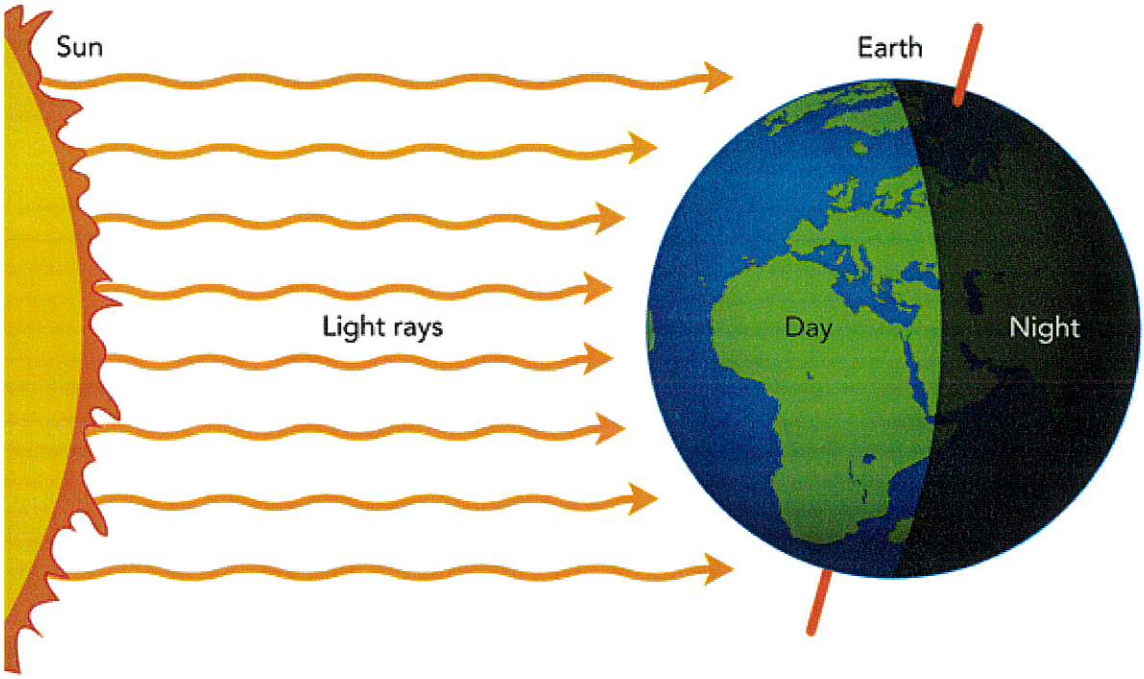
A. Aries
B. Cancer
C. Capricornus
D. Virgo

14. Which of the following causes these constellations to appear seasonally?

A. The Earth's rotation on its axis
B. The moon's revolution around the Earth
C. The Earth's movement on its orbital path
D. The Sun's movement across the sky

Use the information and your knowledge of science to answer the question.

Students are researching Earth's phenomena and draw a diagram to represent day and night on Earth.

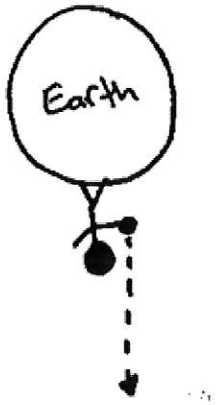


15. Which statement correctly explains why parts of the Earth experience day at the same time as other parts experience night?

- **A.** The tilt of the Earth on its axis means causes one side to always be tilted towards the sun, while the other is tilted away from the sun.
- **B.** As the Sun orbits around the Earth, it shines light on different sides of the Earth.
- **C.** As Earth orbits the Sun, sunlight only reaches one part of the Earth.
- **D.** As the Earth rotates on its axis, sunlight only reaches one part of the Earth.

Use the information and your knowledge of science to answer the question.

An elementary school student, Devine, draws the following model to show what happens when someone drops a rock on the South Pole.



16. What, if anything, should Devine do to improve her model? Explain your answer.