

Supplemental Reading Packet Week 3

April 6 - April 9, 2020

3rd grade

(3A) Ms. Gauss

(3B) Ms. Tyler

(3C) Ms. Kaiser

(3D) Mr. Aniol

Student Name:	Section:

GHNO Distance Learning Packet, Week 3 3rd Grade | Q3W9 | April 6 - April 9, 2020 Supplemental Reading Packet

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Monday

MONEY TROUBLE



Ouis was the best-liked young male swan on Upper Red Rock Lake. He was also the best equipped. He not only had a slate and a chalk pencil around his neck, he had a brass trumpet on a red cord. The young females were beginning to notice him because he looked entirely different from the other cygnets. He stood out in a crowd. None of the others carried anything with them.

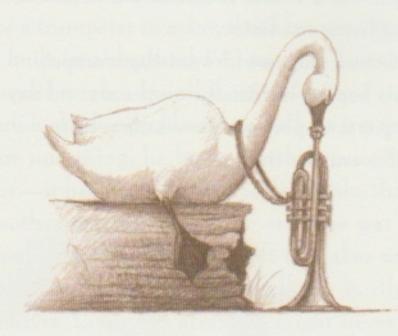
Louis was delighted with the new trumpet. All day,



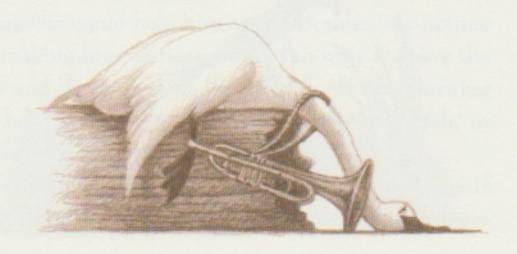
the first day he had it, he tried to get it to make a noise. Holding the trumpet was not easy. He tried several different positions, bending his neck and blowing. At first, no sound came out. He blew harder



and harder, puffing out his cheeks and getting red in the face.



"This is going to be tough," he thought.



But then he discovered that, by holding his tongue in a certain way, he could get the trumpet to emit a small gasping sound. It wasn't a very pretty noise, but at least it was a noise. It sounded a little like hot air escaping from a radiator.

"Puwoowf, puwoowf," went the trumpet.

Louis kept at it. Finally, on the second day of trying, he got it to play a note—a clear note.

"Ko!" went the trumpet.



Louis's heart skipped a beat when he heard it. A duck, swimming nearby, stopped to listen.

"Ko! Ko ee oo oooph," went the trumpet.

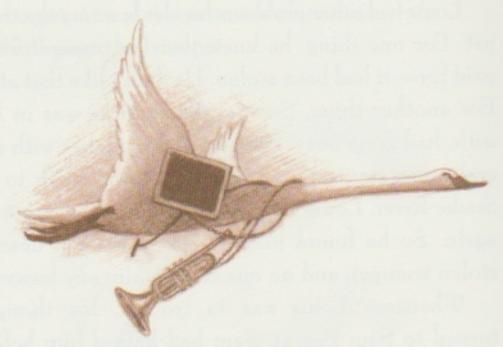
"It will take time," thought Louis. "I'm not going to become a trumpeter in a day, that's for sure. But Rome wasn't built in a day, and I'm going to learn to blow this horn if it takes me all summer."

Louis had other problems besides learning the trumpet. For one thing, he knew that his trumpet wasn't paid for—it had been stolen. He didn't like that at all. For another thing, Serena, the swan he was in love with, had gone away. She had left the lakes with several other young swans and had flown north to the Snake River. Louis was afraid he might never see her again. So he found himself with a broken heart, a stolen trumpet, and no one to give him any lessons.

Whenever Louis was in trouble, his thoughts turned to Sam Beaver. Sam had helped him before; perhaps he could help him again. Besides, springtime was making him restless: he felt an urge to leave the lakes and fly somewhere. So he took off one morning and headed straight for the Bar Nothing Ranch, in the Sweet Grass country, where Sam lived.

Flying was not as easy as it once had been. If you've ever tried to fly with a trumpet dangling from

your neck and a slate flapping in the wind and a chalk pencil bouncing around at the end of its string, you know how hard it can be. Louis realized that there were advantages in traveling light and not having too many possessions clinging to you. Nevertheless, he was a strong flier, and the slate and the chalk pencil and the trumpet were important to him.



When he reached the ranch where Sam lived, he circled once, then glided down and walked into the barn. He found Sam grooming his pony.

"Well, look who's here!" exclaimed Sam. "You look like a traveling salesman with all that stuff around your neck. I'm glad to see you."

Louis propped the slate up against the pony's stall.

"I'm in trouble," he wrote.

"What's the matter?" asked Sam. "And where did you get the trumpet?"

"That's the trouble," wrote Louis. "My father stole it. He gave it to me because I have no voice. The trumpet hasn't been paid for."

Sam whistled through his teeth. Then he led the pony into his stall, tied him, came out, and sat down on a bale of hay. For a while he just stared at the bird. Finally he said, "You've got a money problem. But that's not unusual. Almost everybody has a money problem. What you need is a job. Then you can save your earnings, and when you get enough money saved up, your father can pay back the man he stole the trumpet from. Can you actually play that thing?"

Louis nodded. He raised the trumpet to his beak.

"Ko!" said the trumpet. The pony jumped.

"Hey!" said Sam. "That's pretty good. Do you know any other notes?"

Louis shook his head.

"I've got an idea," said Sam. "I have a job this summer as a junior counselor at a boys' camp in Ontario. That's in Canada. I'll bet I can get you a job as camp bugler if you can learn a few more notes. The camp wants somebody that can blow a horn. The idea is, you blow a lot of loud fast notes in the early morning to wake the boys up. That's called reveille. Then you blow some other notes to call the campers to their meals. That's called the mess call. Then at night when everybody is in bed and the light has faded from the sky and the lake is calm and the mosquitoes are busy in the tents, biting the boys, and the boys are getting sleepy in their beds, you blow some other notes, very soft and sweet and sad. That's called taps. Do you want to go to camp with me and try it?"

"I'll try anything," wrote Louis. "I am desperate for money."

Sam chuckled. "O.K.," he said. "Camp opens in about three weeks. That'll give you time to learn the bugle calls. I'll buy you a music book that tells what the notes are."

And Sam did. He found a book of trumpet calls, such as they use in the Army. He read the instructions to Louis. "Stand erect. Always hold the trumpet straight from the body. Do not point it down toward the ground as this position cramps the lungs and gives the performer a very poor appearance. The instrument should be cleaned once a week to remove the spit."

Every afternoon, when the guests on Mr. Beaver's



ranch had gone off on pack trips in the hills, Louis practiced the calls. Pretty soon he could play reveille, mess call, and taps. He particularly liked the sound of taps. Louis was musically inclined and was eager to become a really good trumpeter. "A Trumpeter Swan," he thought, "should blow a good trumpet." He liked the idea of getting a job, too, and earning money. He was just the right age for going to work. He was almost two years old.

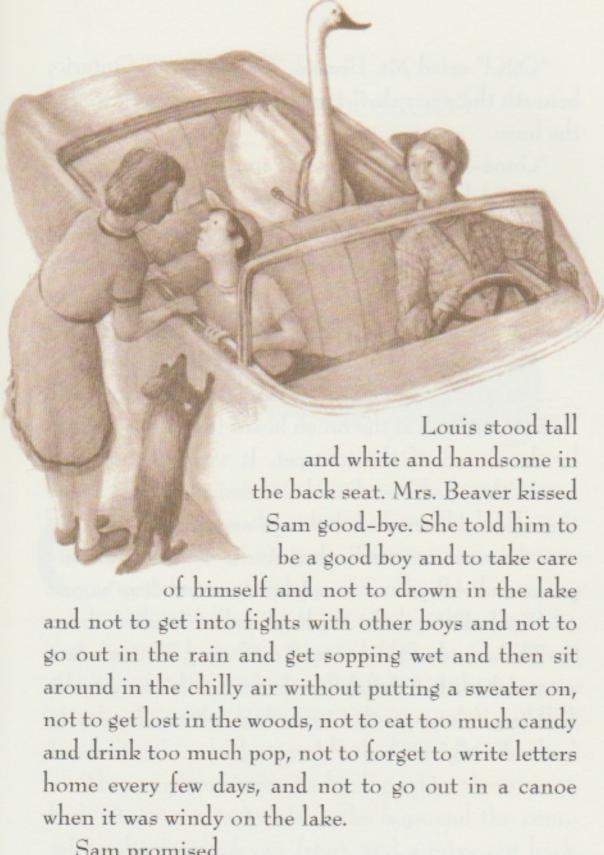
On the night before they were to leave for camp, Sam packed all his camping things in a duffel bag. He packed sneakers and moccasins. He packed jerseys that said "Camp Kookooskoos" on the front. He rolled his camera in a towel and packed that. He

packed his fishing rod, his toothbrush, his comb and brush, his sweater, his poncho, and his tennis racquet. He packed a pad and pencils and postage stamps and a first-aid kit and a book that told how to identify birds. Before he went to bed, he opened his diary and wrote:

Tomorrow is the last day of June. Pop is going to drive Louis and me to Camp Kookooskoos. I bet it will be the only boys' camp in the world that has a trumpeter swan for the camp bugler. I like having a job. I wish I knew what I was going to be when I am a man. Why does a dog always stretch when he wakes up?

Sam closed his diary, shoved it into the duffel bag with the rest of his stuff, got into bed, turned out the light, and lay there wondering why a dog always stretches when it wakes up. In two minutes he was asleep. Louis, out in the barn, had gone to sleep long ago.

Bright and early next morning, Louis arranged his slate and his chalk pencil and his trumpet neatly around his neck and climbed into the back seat of Mr. Beaver's car. The car was a convertible, so Mr. Beaver put the top down. Sam got in front with his father.



Sam promised.

"O.K.!" cried Mr. Beaver. "Off we go to Ontario, beneath the open sky!" He started the car and tooted the horn.

"Good-bye, Mom!" called Sam.

"Good-bye, son!" called his mother.

The car sped away toward the big main gate of the ranch. Just as it was disappearing from view, Louis turned around in his seat and put his trumpet to his mouth.

"Ko-hoh!" he blew. "Ko-hoh, ko-hoh!"

The sound carried—a wild, clear, stirring call. Everybody back at the ranch heard it and was thrilled by the sound of the trumpet. It was like no other sound they had ever heard. It reminded them of all the wild and wonderful things and places they had ever known: sunsets and moonrises and mountain peaks and valleys and lonely streams and deep woods.

"Ko-hoh! Ko-hoh!" called Louis.

The sound of the trumpet died away. The ranchers returned to their breakfast. Louis, on his way to his first job, felt as excited as he had felt on the day he learned to fly.

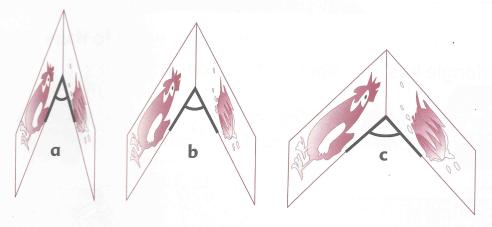
12 GEOMETRY

1 Angles

Use two cards to form an **angle** like this:

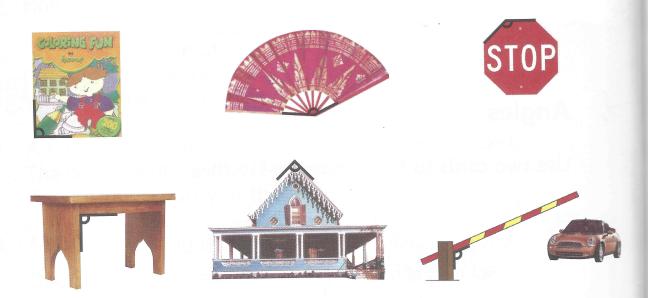


Then make a bigger angle.
What is the biggest angle you can get?
Compare it with your friends'.



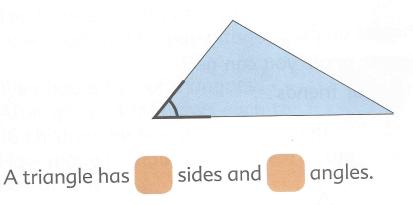
Which angle is the smallest? Which angle is the biggest?

1. Here are some examples of angles.

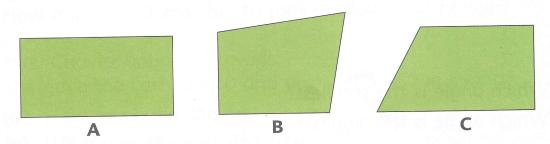


Look for some more angles around you.

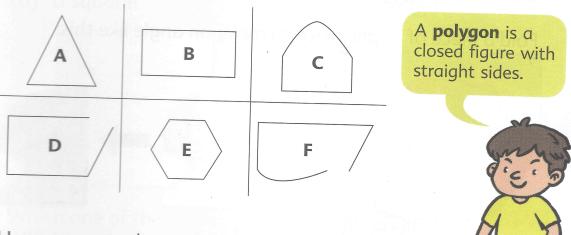
2. Any two sides of a triangle make an angle.



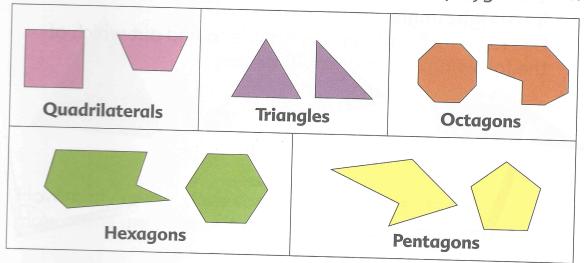
3. Here are some 4-sided figures. How many angles does each figure have?



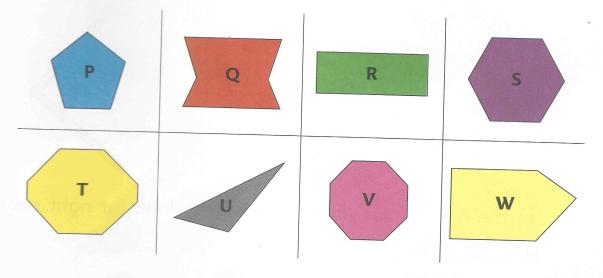
4. Which of these figures are polygons?



5. How many angles and sides does each of these polygons have?



6. Name each of these polygons.



A Force Is a Push or a Pull

Chapter 1

Think about how you start your day.
You wake up and push yourself out of bed. You pull a box from the shelf and pour cereal into a bowl. You lift a milk carton and pour the milk. Then, you pull spoonfuls of cereal to your mouth.

You might not wake up thinking that you are using forces, but you are. A **force** is a push or a pull. Each time you push or pull

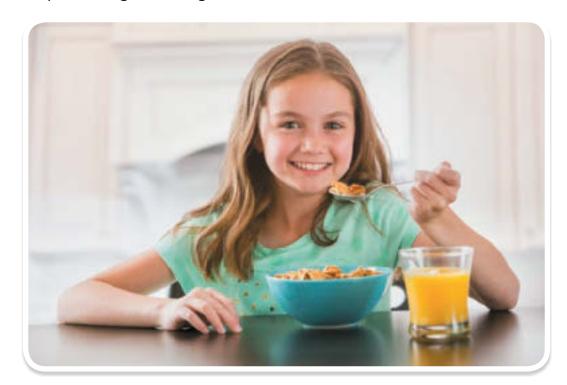
Big Question

What are balanced and unbalanced forces?

Vocabulary

force, n. a push or a pull

something, you use a force. Every time something starts to move, stops moving, or changes direction, forces are involved.



What forces does the girl use to prepare and eat her breakfast?

Forces Change Motion

Whenever you cause something to start to move, stop moving, change speed, or change direction, you use forces.

Motion is a change of position. Think about kicking a ball. A force from your leg causes the ball to move—the ball is pushed into motion. The force of the kick changes the ball from not moving to moving. As the ball changes location, it is in motion.

Vocabulary

motion, n. the process of an object changing position

A bike rider pushes the bike's pedals to begin moving in a race. He pushes the handlebars to change directions to zigzag around the cones. The rider uses forces to change his direction and speed.

Forces can also make things stop moving.
When the rider is ready to stop, he will stop pushing the bike pedals.
He will pull on the bicycle brakes in a way that slows him down.



The rider uses forces to start, change, and stop his motion.

Forces Can Be Balanced or Unbalanced

When two equal teams play tug-of-war, the rope may not move at all. There is no motion. If you add up all the forces acting on the rope, they are equal. The pull from one side equals the pull from the other side. The forces on the rope are **balanced forces**.



The rope does not move when the two teams pull with equal force.

What happens to the rope when one side pulls with greater force than the other side? Forces on the rope become unbalanced.

Unbalanced forces cause an object's motion to change. One team will begin to win the tug-of-war.

Imagine the tug-of-war rope sitting still on the ground. You might be surprised that forces are acting on it. The force of gravity is pulling the rope down all the time. The ground also pushes up against the rope. The two forces are equal but acting in opposite directions. How could you make the forces unbalanced and change the motion of the rope? By pulling on it to pick it up!

Vocabulary

balanced forces, n. a collection of forces acting on an object that cancel each other out and produce no change in the object's motion

unbalanced forces, n. a collection of forces acting on an object that result in a change in the object's motion

Gravity Is a Pulling Force

Forces are all around you. You can see or feel many of them, especially when they are unbalanced. You feel forces when someone pushes you on a swing. You feel a pull when someone tugs on your shirt.

You might not see or notice it, but the force of **gravity** pulls on you all the time. Earth's gravity is a force that pulls objects down toward the ground.

Vocabulary

gravity, n. a force that pulls objects toward Earth's surface

When you are sitting still, are forces acting on you? Yes! The force of the ground is pushing upward on your body, and the force of gravity is pulling you down. You don't float up or sink down because the forces are balanced. If you jump up, the push you apply with your muscles makes the forces unbalanced. You move upward.



Gravity pulls the boy downward. He pushes against the force with his legs as he balances.

A Force Has Direction

The dogs in the picture play tug with the rope toy. When the dogs pull the toy with the same amount of force, the toy does not move. The forces are balanced. The balanced forces have the same strength. But the forces pull in opposite directions.

One way to understand forces is to draw arrows to represent their direction. One dog pulls the rope toy to the left. The other dog pulls the toy to the right. Using arrows on pictures can help us model, or show, that all forces have direction.



The dogs pull the rope with the same amount of force but in different directions.

A Force Has Strength

Look at the picture. Which dog do you think will win the tugging match? The brown and white dog on the left is bigger. It can probably pull with a stronger force.

When two forces of different strengths pull on the same object, the object will move toward the stronger pull. When two forces of different strength push on an object, the object moves away from the stronger push. When pushes and pulls are balanced, the object will not move.

Can you predict if something will move when it is pushed or pulled? If you think carefully about strength and directions of all forces on an object, you can predict motion of the object. Try it yourself! You can draw pictures and arrows to help explain what causes something to move or stop moving.



These are unbalanced forces because one dog pulls with a stronger force.

Tuesday

CAMP KOOKOOSKOOS



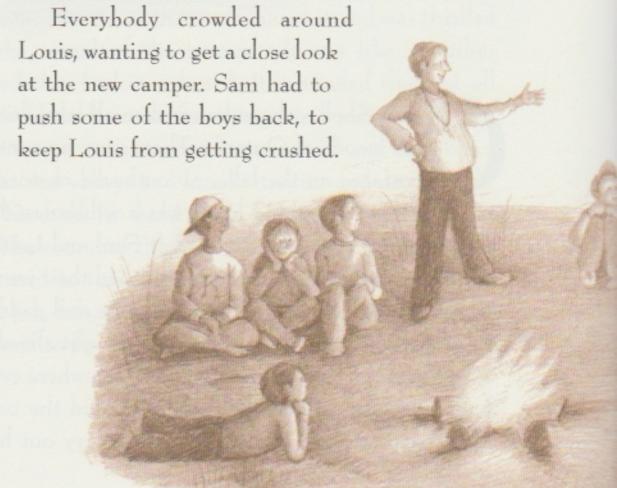
amp Kookooskoos was on a small lake, deep in the woods of Ontario. There were no summer cottages on the lake, no outboard motors, no roads with cars rushing by. It was a wilderness lake, just right for boys. Mr. Beaver left Sam and Louis at the end of a dirt road, and they finished their journey to camp by canoe. Sam sat in the stern and paddled, Louis stood in the bow and looked straight ahead.

The camp consisted of a big log cabin where everybody ate, seven tents where the boys and the counselors slept, a dock out front, and a privy out back. The woods closed in all around, but there was a bare spot that had been made into a tennis court, and there were plenty of canoes in which to take trips to other lakes. There were about forty boys.

When Sam's canoe grounded on the sandy beach next to the camp dock, Louis stepped ashore wearing his slate, his chalk pencil, and his trumpet. About twenty boys rushed down to the landing to see what was going on. They could hardly believe their eyes.

"Hey, look what's here!" one of the boys yelled.

"A bird!" cried another. "Look at the size of him!"



"Take it easy, will you?" Sam implored.

That evening after supper, the director of the camp, Mr. Brickle, built a big campfire in front of the main lodge. The boys gathered around. They sang songs and toasted marshmallows and swatted mosquitoes. Sometimes you couldn't understand the words of a song because the boys sang with marshmallows in their mouths. Louis did not join the group. He stood by himself at a little distance.

After a while, Mr. Brickle rose to his feet and

addressed the boys and the counselors.

"I call your attention," he said, "to a new camper in our midst-Louis the Swan. He is a Trumpeter Swan, a rare bird. We are lucky to have him. I have employed him at the same salary I pay my junior counselors: one hundred dollars for the season. He is gentle and has a speech defect. He came here from Montana with Sam Beaver. Louis is a musician. Like most musicians, he is in need of money. He will wake you at daybreak with his trumpet; he will call you to meals; and at night, when

you are dropping off to sleep, he will play taps, and that will bring the day to a close. I caution you to treat him as an equal and to treat him with respect—he packs a terrific wallop with one of those wings. I now introduce, for your listening pleasure, Louis the Swan. Take a bow, Louis!"

Louis was embarrassed, but he came forward and bowed. Then he raised his trumpet to his mouth and blew a long ko. When he finished, from the opposite shore of the lake there came the echo: ko-oo.

The boys clapped. Louis bowed again. Sam Beaver, sitting with the others, his mouth full of marshmallows, was delighted that his plan had succeeded. At the end of the summer, Louis would have a hundred dollars.

A boy named Applegate Skinner stood up.

"Mr. Brickle," he said, "what about me? I don't care for birds. I've never liked birds."

"O.K., Applegate," said Mr. Brickle. "You don't have to like birds. If that's the way you feel about it, just go ahead not-liking birds. Everyone is entitled to his likes and dislikes and to his prejudices. Come to think of it, I don't care for pistachio ice cream. I don't know why I don't like it, but I don't. Do not forget, however, that Louis is one of your counselors. Whether you like him or not, he must be treated with respect."

One of the new boys who had never been to camp before stood up.

"Mr. Brickle," he said, "why is this camp called Camp Kookooskoos? What does Kookooskoos mean?"

"It's an Indian name for the Great Horned Owl," replied Mr. Brickle.

The new boy thought about this for a minute.

"Then why didn't you just call it Camp Great Horned Owl instead of Camp Kookooskoos?"

"Because," replied Mr. Brickle, "a boys' camp should have a peculiar name; otherwise it doesn't sound interesting. Kookooskoos is a terrific name. It is a long word, but it has only three letters in it. It has two s's, three k's, and six o's. You don't find many names as kooky as that. The queerer the name, the better the camp. Anyway, welcome to Camp Kookooskoos. It rhymes with moose—that's another good thing about it.

"And now it's time for everybody to go to bed. You may take a swim before breakfast tomorrow, and you don't need to wear your swim trunks. Just jump out of bed when you hear the trumpet of the swan, strip off your pajamas, race to the dock, and dive in. I will be there ahead of you to do my celebrated backflip from

the diving tower. It freshens me up for the hard day ahead. Good night, Louis! Good night, Sam! Good night, Applegate! Good night, all!"

The light was fading. The boys straggled off to their tents in the darkness. The senior counselors sat together on the porch and smoked one last pipe.

Sam crawled in under his blankets in Tent Three. Louis walked to a high, flat rock by the shore and stood there, waiting. When the lights were all out, he faced the camp, raised his horn to his mouth, and blew taps.



The last note seemed to linger on the still waters of the lake. From their beds, the boys heard the beautiful

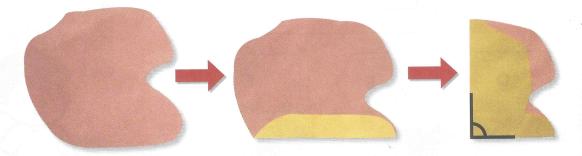


Applegate Skinner, who didn't care for birds at bedtime. But even Applegate was soon asleep, along with the others in his tent. He was asleep, and he was snoring. People who dislike birds often snore.

A deep peace fell over Camp Kookooskoos.

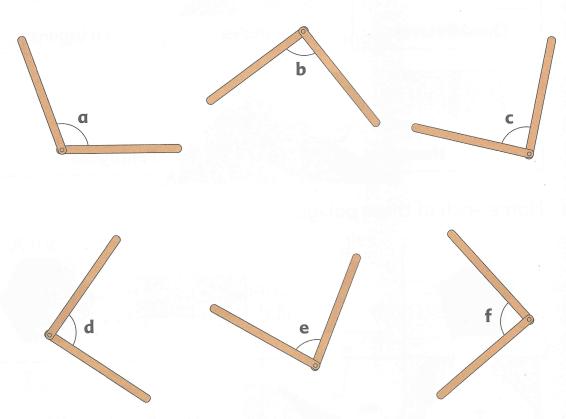
2 Right Angles

Fold a piece of paper twice to make an angle like this:



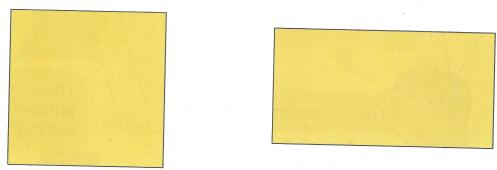
The angle you have made is a special one. It is a **right angle**.

Use the right angle you have made to find out which of the following angles are right angles.

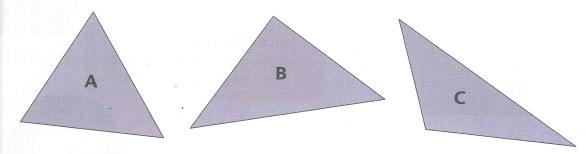


Use the right angle you have made to look for right angles around you.

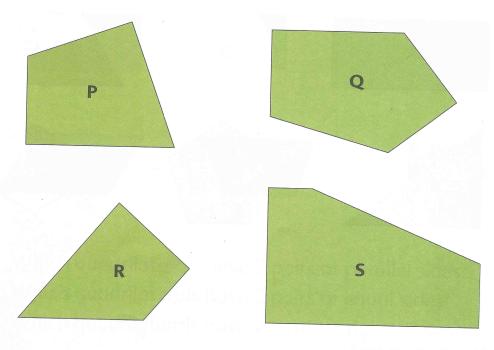
How many right angles can you find in (a) a square? (b) a rectangle?



Which one of these triangles has a right angle? Which one has an angle which is **greater than** a right angle?



How many angles does each of these figures have? How many are right angles?



THIRD GRADE ART – T. NORTHWAY

Distance Learning: Spring 2020 Week 3

Tuesday April 7

Goal/Objective:

Work on Rose Window Drawing if you are still not finished....

And then begin your Tuesday Bellwork Routine.

I will post your finished work on my blog if you email it to me.

You may not have much time to draw bellwork this week.

However.....

at the very minimum, I would like for you to do your one minute of SILENT LOOKING on BOTH Tuesday and Thursday--PLEASE:)

Tuesday Bellwork Image Address: 1963.12 dufy.jpg



"Golfe Juan" (1927) - Artist: Raoul Dufy, French, 1877-1953

(PA) Step 1:

Additional Instructions on my blog: https://ghnoartk-3.blogspot.com

- □ Open the Image link above:
- ☐ Look at the image silently with your Art Scholar for at least 1 minute. Set a timer for one minute without talking or questions.

Thursday, April 9

Goal/Objective:

Work on Rose Window Drawing if you are still not finished.....

And then begin your Thursday Bellwork Routine.

You may not have much time to draw bellwork this week.

However....

.....at the very minimum, I would like for you to do your one minute of SILENT LOOKING on BOTH Tuesday and Thursday--PLEASE:)

<u>Thursday Bellwork Image Address:</u> 1980.7.27 dufy.jpq



"Peacock" (1910) - Artist: Raoul Dufy, French, 1877-1953

(PA) Step 1:

Additional Instructions on my blog: https://ghnoartk-3.blogspot.com

- □ Open the Image link above:
- ☐ Look at the image silently with your Art Scholar for at least 1 minute. Set a timer for one minute without talking or questions.

THIRD GRADE ART - T. NORTHWAY

Distance Learning: Spring 2020 Week 3

Ask your scholar to hold questions and comments to themselves for just one minute.	Ask your scholar to hold questions and comments to themselves for just one minute.
☐ After time is up, begin discussing what it is that you both SEE .	☐ After time is up, begin discussing what it is that you both SEE .
You are looking for how the artist used, or if the artist used some or all of <i>The Elements of Art - Line, Shape, Space, Texture, Form, Value, Color</i>	You are looking for how the artist used, or if the artist used some or all of <i>The Elements of Art - Line, Shape, Space, Texture, Form, Value, Color</i>
☐ https://www.getty.edu/education/teachers/b uilding lessons/elements art.pdf	https://www.getty.edu/education/teachers/building lessons/elements_art.pdf
☐ These observations and discussions naturally lead to discovery, personal opinion (THINK) and inquiry (WONDER).	These observations and discussions naturally lead to discovery, personal opinion (THINK) and inquiry (WONDER).
(<u>PA</u>) Step 2	(PA) Step 2
Set up work table with the following materials:	Set up work table with the following materials:
■ 8 ½ x 11" THICK paper such as cardstock, inside of cereal box or poster board (watercolor or mixed media paper, if possible)	■ 8 ½ x 11" THICK paper such as cardstock, inside of cereal box or poster board (watercolor or mixed media paper, if possible)
 Colored Pencils, Crayons, Extra Fine Sharpie Marker, Watercolors 	Colored Pencils, Crayons, Extra Fine Sharpie Marker, Watercolors
Open window on computer with Tuesday Bellwork image:	Open window on computer with Tuesday Bellwork image:
Mrs. Northway's Blog https://ghnoartk-3.blogspot.com/2020/03/w eek-1extended-spring-break.html	Mrs. Northway's Blog https://ghnoartk-3.blogspot.com/2020/03/wee k-1extended-spring-break.html
(<u>PA</u>) Step 3	(PA) Step 3
PREPARE PAPER FOR DAILY DRAWING: A quick way to prepare paper is to adjust the size of the art image on screen and then hold your paper up to the computer monitor.	PREPARE PAPER FOR DAILY DRAWING: A quick way to prepare paper is to adjust the size of the art image on screen and then hold your paper up to the computer monitor.

<u>BELLWORK FOR WEEK 3:</u> This artwork is in the collection of the McNay Art Museum:

proportions.

Mark the paper edges to match the

BELLWORK FOR WEEK 3:

proportions.

This artwork is in the collection of the McNay Art

Mark the paper edges to match the

THIRD GRADE ART - T. NORTHWAY

Distance Learning: Spring 2020 Week 3

https://collection.mcnayart.org/objects/1472

I will provide a video demonstration FOR PROJECT 3 AND BELLWORK in Week 3 of my blog. https://ghnoartk-3.blogspot.com Museum:

https://collection.mcnayart.org/objects/3089

I will provide a video demonstration FOR PROJECT 3 AND BELLWORK in Week 3 of my blog.

https://ghnoartk-3.blogspot.com

Wednesday

A RESCUE

ouis liked to sleep on the lake. At night, after blowing taps, he would waddle down to the sandy beach by the dock. There he removed his slate, his chalk pencil, and his trumpet and hid them under a bush. Then he shoved off into the water. As soon as he was afloat, he would tuck his head under a wing. For a while he would doze and think about home and his parents. Then he would think about Serena-how beautiful she was and how much he loved her. Pretty soon he would be fast asleep. When

daylight came, he would swim ashore and eat a light breakfast of water plants. Then he'd put on his things, climb onto the flat rock, and blow reveille. The boys, hearing the trumpet, would wake and rush to the dock to swim before breakfast.

After supper at night the campers would often play volleyball. Louis loved the game. He couldn't hop around as fast as the boys, but he could reach far out with his long neck and poke the ball into the air and over the net. It was very hard to get a ball past Louis—he could return almost any shot. When the boys chose sides at the start of the game, Louis was always the first to be chosen.

The boys loved camp life in Ontario. They learned how to handle a canoe. They learned to swim. Sam Beaver took them on nature walks and taught them to sit quietly on a log and observe wild creatures and



birds. He showed them how to walk in the woods without making a lot of noise. Sam showed them where the kingfisher had his nest, in a hole in the bank by a stream. He showed them the partridge and her chicks. When the boys heard a soft co-co-co-co, Sam told them they were listening to the Sawwhet Owl, smallest of the owls, no bigger than a man's hand. Sometimes in the middle of the night the whole camp would wake to the scream of a wildcat. Nobody ever saw a wildcat during the entire summer, but his scream was heard at night.

One morning when Sam was playing tennis with Applegate Skinner, Sam heard a clanking noise. He looked behind him, and there, coming out of the woods, was a skunk. The skunk's head was stuck in a tin can; he couldn't see where he was going. He kept bumping into trees and rocks, and the can went clank, clank, clank.

"That skunk is in trouble," said Sam, laying down his racquet. "He's been to the dump, looking for food. He poked his head into that empty can, and now he can't get it out."

The word spread quickly through camp that a skunk had arrived. The boys came running to see the fun. Mr. Brickle warned them not to get too close—

the skunk might squirt them with perfume. So the boys danced around, keeping their distance and holding their noses.

The big question was how to get the can off the skunk's head without getting squirted.

"He's going to need help," said Sam. "That skunk will starve to death if we don't get that can off."

All the boys had suggestions.

One boy said they should make a bow and arrow, tie a string to the arrow, and shoot the arrow at the can. Then, when they hit the can, they could pull the string and the can would come off the skunk's head. Nobody thought much of that suggestion—it sounded like too much work.

Another boy suggested that two boys climb a tree, and one boy could hang by his feet from the other boy's hands, and when the skunk walked under the tree, the boy who was hanging by his feet could reach down and pull the can off, and if the skunk squirted, the perfume wouldn't hit the boy because he would be hanging in the air. Nobody thought much of that suggestion. Mr. Brickle didn't like it at all. He said it was extremely impractical and furthermore he wouldn't permit it.

Another boy suggested that they get a block of

wood, smear it with glue, and when the skunk knocked against it, the can would stick to the block of wood. Nobody thought much of that suggestion. Mr. Brickle said he didn't have any glue anyway.

While everybody was making suggestions, Sam Beaver walked quietly to his tent. He returned in a few minutes with a long pole and a piece of fishline. Sam tied one end of the fishline to the pole. Then he tied



a slipknot in the other end of the line and formed a noose. Then he climbed to the roof of the porch and asked the other boys not to get too close to the skunk.

The skunk all this time was blundering around, blindly bumping into things. It was a pitiful sight.

Sam, holding his pole, waited patiently on the roof. He looked like a fisherman waiting for a bite. When the skunk wandered close to the building, Sam reached over, dangled the noose in front of the skunk, slipped the noose around the can, and gave a jerk. The noose tightened, and the can came off. As it did so, the skunk turned around and squirted—right at Mr.

Brickle, who jumped back, stumbled, and fell.

All the boys danced around, holding their noses. The skunk ran off into the woods. Mr. Brickle got up and dusted himself off. The air smelled strong of skunk. Mr. Brickle smelled, too.

"Congratulations, Sam!"
said Mr. Brickle. "You have aided
a wild creature and have given
Camp Kookooskoos a delicious
dash of wild perfume. I'm sure we'll
all remember this malodorous
event for a long time to come.

I don't see how we can very well forget it."

"Ko-hoh!" cried Louis, lifting his trumpet. The lake echoed with the sound. The air was heavy with the rich, musky smell of skunk. The boys danced and danced, holding their noses. Some of them held their stomachs and pretended to throw up. Then Mr. Brickle announced it was time for the morning swim.

"A swim will clear the air," he said, as he walked away toward his cottage to change his clothes.

After lunch each day, the campers went to their tents for a rest period. Some of them read books. Some wrote letters home, telling their parents how bad the food was. Some just lay on their cots and talked. One afternoon during rest period, the boys in Applegate's tent began teasing him about his name.

"Applegate Skinner," said one boy. "Where did you get such a crazy name, Applegate?"

"My parents gave it to me," replied Applegate.

"I know what his name is," said another boy. "Sour Applegate. Sour Applegate Skinner." The boys howled at this and began chanting, "Sour Applegate, Sour Applegate, Sour Applegate."

"Quiet!" bellowed the tent leader.

"I don't think it's funny," said Applegate.

"His name isn't Sour Applegate," whispered another boy. "His name is Wormy Applegate. Wormy Applegate Skinner." This suggestion was greeted with screams of laughter.

"Quiet!" bellowed the tent leader. "I want quiet in this tent. Leave Applegate alone!"

"Leave Rotten Applegate alone!" whispered another boy. And some of the other boys had to pull their pillows over their heads so their snickering couldn't be heard.

Applegate was sore. When the rest period was over, he wandered down to the dock. He didn't like being made fun of, and he wanted to do something to get



even. Without saying anything to anybody, he slid a canoe into the water and paddled out into the lake, heading for the opposite shore a mile away. No one noticed him.

Applegate had no business taking a canoe out alone.

He had not passed his swimming test. He had not passed his canoe test. He was disobeying a camp rule. When he was a quarter of a mile from shore, in deep water, the wind grew stronger. The waves got higher. The canoe was hard to manage. Applegate got scared. Suddenly, a wave caught the canoe and spun it around. Applegate leaned hard on his paddle. His hand slipped, and he lost his balance. The canoe tipped over. Applegate found himself in the water. His clothes felt terribly soggy and heavy. His shoes dragged him down, and he could barely keep his head above water. Instead of hanging on to the canoe, he started swimming toward shore—which was a crazy thing to do. One wave hit him square in the face, and he got a mouthful of water.

"Help!" he screamed. "Help me! I'm drowning. It'll give the camp a bad name if I drown. Help! Help!"

Counselors sprinted to the waterfront. They jumped into canoes and rowboats and started for the drowning boy. One counselor kicked his moccasins off, dove in, and began swimming toward Applegate. Mr. Brickle raced to the dock, climbed to the diving tower, and directed the rescue operation, shouting through a megaphone.

"Hang on to the canoe, Applegate!" he shouted.

"Don't leave the canoe!"

But Applegate had already left the canoe. He was all alone, thrashing about and wasting his strength. He felt sure he would soon go to the bottom and drown. He felt weak and scared. Water had got into his lungs. He couldn't last much longer.

The first boat to get away from the dock was rowed by Sam Beaver, and Sam was pulling hard at the oars, straining every muscle. But things didn't look good for Applegate. The boats were still a long way from the boy.

When the first cry of "Help" was heard in camp, Louis was coming around the corner of the main lodge. He spied Applegate immediately and responded to the call.

"I can't fly out there," thought Louis, "because my flight feathers have been falling out lately. But I can certainly make better time than those boats."

Dropping his slate and his chalk pencil and his trumpet, Louis splashed into the water and struck out, beating his wings and kicking with his great webbed feet. A swan, even in summer when he can't fly, can scoot across the water at high speed. Louis's powerful wings beat the air. His feet churned the waves, as though he were running on top of the water. In a

Applegate, he quickly dove, pointed his long neck between Applegate's legs, then came to the surface with Applegate sitting on his back.

Cheers came from the people on the shore and in the boats. Applegate clung to Louis's neck. He had been saved in the nick of time. Another minute and he would have gone to the bottom. Water would have filled his lungs. He would have been a goner.

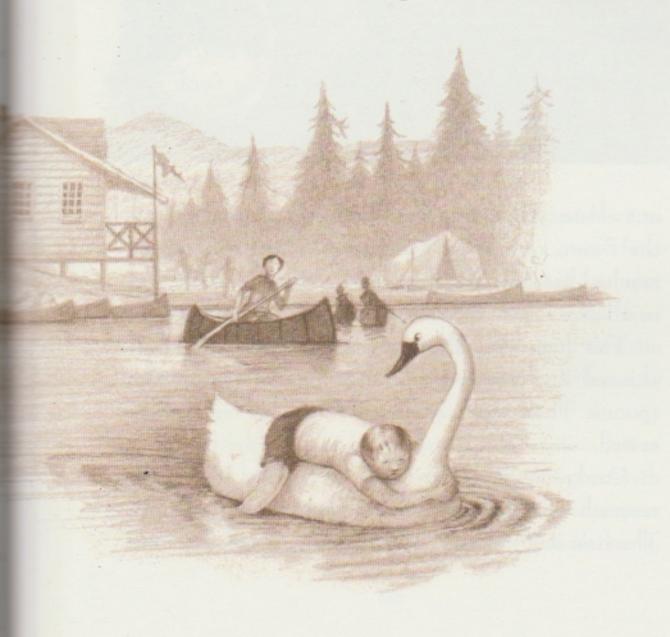
"Thank God!" shouted Mr. Brickle through his megaphone. "Great work, Louis! Camp Kookooskoos will never forget this day! The reputation of the camp has been saved. Our record for safety is still untarnished."

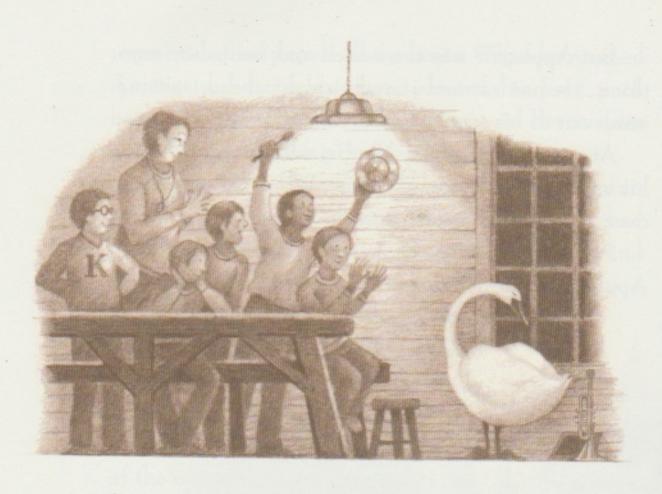
Louis didn't pay much attention to all the shouting. He swam very carefully over to Sam's boat, and Sam pulled Applegate into the boat and helped him into the stern seat.

"You looked pretty funny, riding a swan," Sam said. "And you're lucky to be alive. You're not supposed to go out alone in a canoe." But Applegate was too scared and wet to say anything. He just sat and stared straight ahead, spitting water out of his mouth and breathing hard.

At supper that night, Mr. Brickle placed Louis at his right, in the place of honor. When the meal was over, he rose and made a speech.

"We all saw what happened on the lake today. Applegate Skinner broke a camp rule, took a canoe





out alone, and upset. He was drowning when Louis the Swan, rapidly outdistancing all other campers, reached his side, held him up, and saved his life. Let us all give Louis a standing ovation!"

The boys and the counselors stood up. They cheered and clapped and beat on tin plates with spoons. Then they sat down. Louis looked embarrassed.

"And now, Applegate," said Mr. Brickle, "I hope the rescue has caused you to change your opinion of birds. The first day you were here in camp, you told us you

didn't care for birds. How do you feel now?"

"I feel sick at my stomach," replied Applegate. "It makes you sick at your stomach to almost drown. My stomach still has a lot of lake water in it."

"Yes, but what about birds?" asked Mr. Brickle.

Applegate thought hard for a moment. "Well," he said, "I'm grateful to Louis for saving my life. But I still don't like birds."

"Really?" said Mr. Brickle. "That's quite remarkable. Even though a bird saved you from drowning, you don't care for birds? What have you got against birds?"

"Nothing," replied Applegate. "I have nothing against them. I just don't care for them."

"O.K.," said Mr. Brickle. "I guess we'll just have to leave it at that. But the camp is proud of Louis. He is our most distinguished counselor—a great trumpet player, a great bird, a powerful swimmer, and a fine friend. He deserves a medal. In fact, I intend to write a letter recommending that he be given the Lifesaving Medal."

Mr. Brickle did as he promised. He wrote a letter. A few days later, a man arrived from Washington with the Lifesaving Medal, and while all the campers watched, he hung the medal around Louis's neck,

alongside the trumpet, the slate, and the chalk pencil. It was a beautiful medal. Engraved on it were the words:

TO LOUIS THE SWAN, WHO, WITH OUTSTANDING COURAGE AND COMPLETE DISREGARD FOR HIS OWN SAFETY, SAVED THE LIFE OF APPLEGATE SKINNER

Louis took off his slate and wrote, "Thank you for this medal. It is a great honor."

But he thought to himself, "I'm beginning to get overloaded with stuff around my neck. I've got a trumpet, I've got a slate, I've got a chalk pencil; now

I've got a medal. I'm beginning to look like a hippie. I hope I'll still be able to fly when my flight feathers grow in again."

That night when darkness came, Louis blew the most beautiful taps he had ever blown. The man who had brought the medal was listening and watching He could hardly believe

his ears and his eyes. When he returned to the city, he told people what he had seen and heard. Louis's fame was growing. His name was known. People all over were beginning to talk about the swan that could play a trumpet.

Friction Is a Force

Chapter 2

Have you ever tried to walk on ice? You probably know how easy it is to slip and fall. That's because there is little **friction** between your shoes and the ice. You don't slip when you walk on a rough sidewalk. There is a lot of friction between the sidewalk and your shoes.

Friction is the force that exists between two surfaces that are touching each other. Friction **opposes** motion or potential motion. When there is little friction, surfaces slide smoothly across each other. Friction reduces the slipping or even stops motion.

Big Question

What is the force called friction?

Vocabulary

friction, n. a force that occurs between the surfaces of two objects that are touching

oppose, v. to work against



This sign warns that there may be little friction between your shoes and the surface you are walking on. Watch out!



There is little friction between the bottom of the sled and the surface of the snow. The sled slides easily.

Surfaces in Contact Make Friction

Friction is a **contact force**. That means it happens where surfaces touch each other. For example, your shoes touch the sidewalk as you walk, and the force of friction helps you to propel yourself forward.

Vocabulary

contact force, n.

a push or pull between two objects that are touching each other

No object is completely smooth. Even things that look smooth have bumps too small to see or feel. When two objects rub against each other, those bumps push against each other.



Feet in socks do not slip against the rough material of carpet.

Some surfaces are very rough. Rough surfaces produce a lot of friction when in contact with other objects. Other surfaces are smooth. Smooth surfaces produce less friction when in contact with another surface.

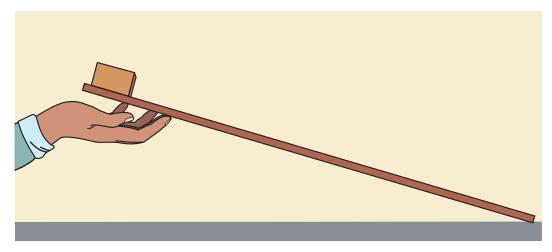
Think about hurrying through different rooms wearing just socks and no shoes. You are less likely to slip on a carpeted surface than you are on a smooth floor.

Friction Opposes Motion and Potential Motion

Look at the picture of the block on the ramp. Are there forces at work there? Yes, there are. The force of gravity is pulling the block downward.

However, the block does not move. That is because there is a friction force between the block and the ramp. The friction opposes the force of gravity. When the two forces are balanced, there is no change in the block's motion. In this way, friction opposes the potential motion of the block.

Now, what would happen if you lift the ramp higher at one end? At some point, the force of gravity would overcome the force of friction. The forces would become unbalanced. Movement occurs as the block slides down the ramp.



The block stays at rest on this piece of wood. Why doesn't the block slide down the slope?

Friction Produces Heat

Have you ever been outside in the cold and rubbed your hands together to try to warm them up? If so, you were making use of friction. Any time two surfaces rub against each other, heat may occur.

You can feel the heat produced by friction between your moving hands. The longer you rub them together and the harder you press them against each other, the warmer they will feel. If two

surfaces only rub
against each other
briefly, the friction
does not cause very
much heat. Often
the amount of heat
produced is too little
to notice. Do your
socks feel warm after
you slide across a
tile floor?

Sometimes friction can result in a great deal of heat. It is possible to rub string and wood together in a way that the friction can start a fire.



To start a fire using only string and wood, the friction must continue steadily for a long while. The friction must also be concentrated in a small area.

Friction Can Be Harmful

It can be useful to know how to start a fire using friction. But heat from friction is not always helpful. Engines, such as the ones that make cars and planes move, have many moving parts. The parts are in contact with



The parts inside engines are coated with oil to reduce friction.

each other, so they are affected by the force of friction. The friction results in heat. Over time, friction and heat weaken the parts of machines. The parts can wear out and break.

Engineers use materials called **lubricants** to reduce friction between machine parts. A lubricant is a substance that coats the surfaces of parts that rub against each other to make them more slippery. Grease and oil are common lubricants. Lubricants help machine parts last longer.

Vocabulary

lubricant, n. a substance that reduces friction between objects in contact

Think About Water and Air

Friction affects more than just solid objects. Feeling the wind blowing on your face is evidence that moving air produces friction. Air friction is called air resistance or drag. Athletes such as professional bikers and swimmers wear special uniforms to reduce the amount of drag they experience as they race to the finish line.

Friction Can Be Helpful

Engineers don't always try to reduce friction. Often they design ways to make use of friction. For example, tires are designed with bumps and grooves on the surface that rolls on the road. Those bumps are called tread. Tread increases the friction between the surfaces of tires and the road. Without tread, a bicycle rider might slip and slide instead of rolling over a very smooth surface.

Squeezing a bicycle hand brake causes the brakes to press and rub against the bike wheel's rim. The force of friction that results makes the bike slow down or stop.



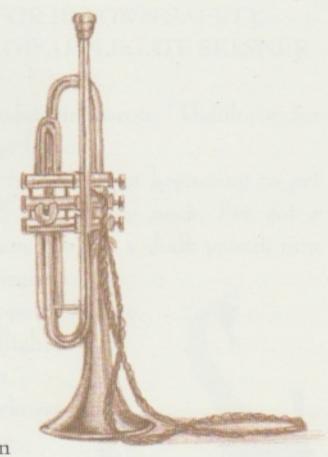
Don't touch a bicycle brake just after a bike has been stopped by the brake. It is likely hot from the friction.

Thursday

END OF SUMMER

trumpet
has three
little valves.
They are for the
fingers of the player.
They look like this:

By pushing them down in the right order, the player can produce all the notes of the musical scale. Louis had often



examined these three little valves on his horn, but he had never been able to use them. He had three front toes on each foot, but, being a water bird, he had webbed feet. The webbing prevented him from using his three toes independently. Luckily, the valves on a

trumpet are not needed for bugle calls because bugle calls are just combinations of do, mi, and sol, and a trumpeter can play do, mi, and sol without pressing down any of the valves.

"If I could just work those three valves with my three toes," he said to himself, "I could play all sorts of music, not just bugle calls. I could play jazz. I could play country-and-western. I could play rock. I could play the great music of Bach, Beethoven, Mozart, Sibelius, Gershwin, Irving Berlin, Brahms, everybody. I could really be a trumpet player, not just a camp bugler. I might even get a job with an orchestra." The thought filled him with ambition. Louis loved music, and besides, he was already casting about for ways of making money after camp was over.

Although he enjoyed life at Camp Kookooskoos, Louis often thought of his home on Upper Red Rock Lake in Montana. He thought about his parents, his brothers and sisters, and about Serena. He was terribly in love with Serena, and he often wondered what was happening to her. At night, he would look up at the stars and think about her. In the late evening, when the big bullfrogs were calling trooonk across the still lake, he would think of Serena. Sometimes he felt sad, lonely, and homesick. His music, however,

was a comfort to him. He loved the sound of his own trumpet.

Summer passed all too quickly. On the last day of camp, Mr. Brickle called his counselors together and paid them what he owed them. Louis received one hundred dollars—the first money he had ever earned. He had no wallet and no pockets, so Mr. Brickle placed the money in a waterproof bag that had a drawstring. He hung this moneybag around Louis's neck, along with the trumpet, the slate, the chalk pencil, and the lifesaving medal.

Louis went to Sam Beaver's tent and found Sam packing his things. Louis took off his slate and pencil.

"I need another job," he wrote. "Where should I go?"

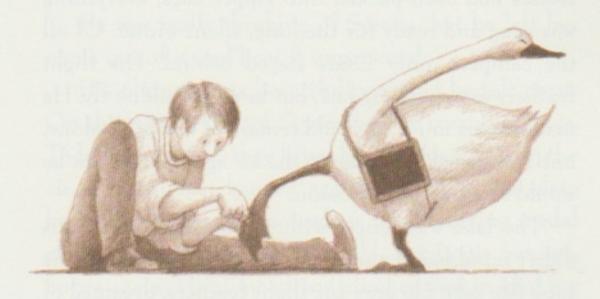
Sam sat down on his bed and thought for a while. Then he said, "Go to Boston. Maybe you can get a job with the Swan Boat."

Louis had never been to Boston, and he had no idea what the Swan Boat was, but he nodded his head. Then on his slate he wrote: "Do me a favor?"

"Sure," said Sam.

"Take a razor blade and slit the web on my right foot, so I can wiggle my toes." He held out his foot. "Why do you want to wiggle your toes?" asked Sam.
"You'll see," wrote Louis. "I need my toes in my business."

Sam hesitated. Then he borrowed a razor blade from one of the older counselors. He made a long, neat cut between Louis's inner toe and middle toe. Then he made another cut between Louis's middle toe and outer toe.



"Does it hurt?"

Louis shook his head. He lifted his trumpet, placed his toes on the valves, and played do, re, mi, fa, sol, la, ti, do. Do, ti, la, sol, fa, mi, re, do. Ko-hoh!

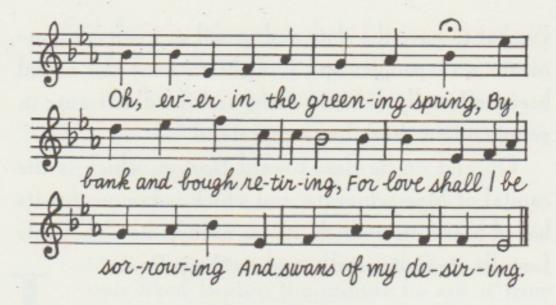
Sam grinned. "The Swan Boat will hire you, all right," he said. "You're a real trumpeter now. But with your web cut, swimming will be harder for you. You

will have a tendency to swim in circles, because your left foot will push better than your right foot."

"I can manage," wrote Louis. "Thanks very much for the surgery."

Next day, the campers left. The canoes had been hoisted onto racks in the boathouse, the float had been hauled onto the beach, the windows of the lodge had been boarded up against bears and squirrels, mattresses had been packed into zipper bags; everything was snug and ready for the long, silent winter. Of all the campers, only Louis stayed behind. His flight feathers were growing fast, but he still couldn't fly. He made up his mind he would remain at camp, all alone, until he was able to take to the air again, and then he would fly straight to Boston.

The lake was lonely without the boys, but Louis didn't mind being alone. For the next three weeks he took life easy. He grew his flight feathers, dreamed of Serena by day and by night, and practiced his trumpet. He had listened to music all summer—several of the boys had radios and record players—and now he practiced the songs on his trumpet. Every day he got better and better. One day, he composed a love song for Serena and wrote the words and music on his slate:



He was really thinking of Serena, but he left her name out of it and kept it impersonal.

His plumage was beautiful now, and he felt great. On the twenty-first of September, he tried his wings. To his great relief, they lifted him. Louis rose into the air. The trumpet banged against the slate, the slate knocked against the moneybag, the lifesaving medal clinked against the chalk pencil—but Louis was airborne again. He climbed and climbed and headed for Boston. It was wonderful to be in the sky again.

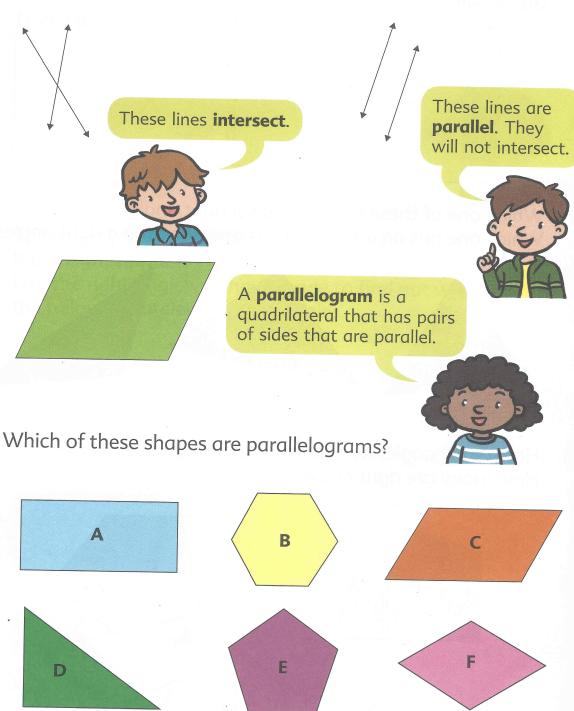
"Flying is a lot harder than it was before I acquired all these possessions," thought Louis. "The best way to travel, really, is to travel light. On the other hand, I have to have these things. I've got to have the trumpet if I am to win Serena for my wife; I've got to carry this moneybag to hold the money to pay my father's debts;

I've got to have the slate and pencil so I can communicate with people; and I ought to wear the medal because I really did save a life, and if I didn't wear it, people might think I was ungrateful."

On and on he flew, toward Boston, which is the capital of Massachusetts, and which is famous for its baked beans, its codfish, its tea parties, its Cabots, its Lowells, its Saltonstalls, and its Swan Boats.



3 Quadrilaterals and Triangles



Is this a parallelogram?



A **rhombus** is a parallelogram with 4 equal sides.

2. Is a square a parallelogram?

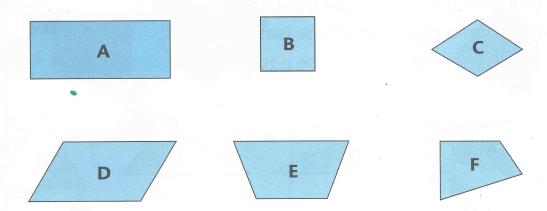


Is a square a rhombus?

3. Is a rectangle a parallelogram?



Is a rectangle a rhombus?



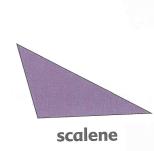
- (a) Which quadrilaterals have 2 pairs of parallel sides?
- (b) Which quadrilaterals have 2 pairs of equal sides?
- (c) Which quadrilaterals have 2 or more right angles?

5. Can a triangle have parallel sides?

6.





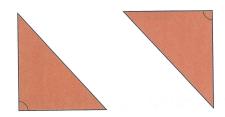


An equilateral triangle is also an isosceles triangle.



- (a) Which triangle has no equal sides?
- (b) Which triangle has 2 equal sides?
- (c) Which triangle has 3 equal sides?

7.



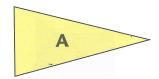


A **right triangle** is a triangle with a right angle.
Can a triangle have 2 right angles?

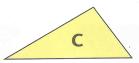


- (a) Can a right triangle be scalene?
- (b) Can a right triangle be isosceles?
- (c) Can a right triangle be equilateral?

8.









- (a) Which triangles are equilateral?
- (b) Which triangles are isosceles?
- (c) Which triangles are scalene?
- (d) Which triangles are right triangles?