

1L Student Distance Learning

Work for the Week of June 1-5, 2020

1L Webpage: <http://www.parnassusteachers.com/first-level-logic-1l.html> Password: Pegasus
Click on each tab to view videos and class resources

Check off each assignment as you complete it:

Day	Daily Work	Weekly Work
One	<p><input type="checkbox"/> Math Lesson 109 <i>Corresponding Parts * Similar Triangles</i> Watch the video going over the new concept (Follow along in your math book, page 585) Answer Practice Set a-e (page 587), and then Mixed Practice 1-30 (beginning on page 588) (Pages 3-4 for the Mixed Practice)</p> <p><input type="checkbox"/> English and Writing</p> <ul style="list-style-type: none"> <input type="checkbox"/> Read Introduction to Norse Myths and <i>The First Gods and Giants</i> <input type="checkbox"/> Answer worksheet questions (pages 14-15 in your packet) <input type="checkbox"/> Copy in cursive (unless your IEP exempts cursive) Mark Antony's speech. Pp 27 and 29. You may tear p. 27 out of the packet. <p><input type="checkbox"/> Latin -Part 1: Declension (p. 44) -Part 1: Vocab Check (p. 44)</p> <p><input type="checkbox"/> Spanish: 1: 7B Assessment (p. 57-58)</p>	<p><input type="checkbox"/> Science</p> <ul style="list-style-type: none"> <input type="checkbox"/> Read <i>Birds</i> on p.65-70 . Then watch Lesson Video. Answer assessment questions on blank graph sheet. <input type="checkbox"/> Read <i>What Is A Mammal?</i> on p.71-75. Then watch Lesson Video. Answer assessment questions on blank graph sheet. <p><input type="checkbox"/> History</p> <ul style="list-style-type: none"> <input type="checkbox"/> Watch Confucius and Qin Dynasty lesson <input type="checkbox"/> R71: Chinese Society and Confucius pp. 78-81 <input type="checkbox"/> R72: Qin Dynasty pp. 82-85 <p>Geography: Practice map games on Seterra.com, as time allows.</p>
Two	<p><input type="checkbox"/> Math Lesson 110 Symmetry Watch the video going over the new concept (Follow along in your math book, page. 591) Answer Practice Set a-b (beginning on page 593 in your math book), and then Mixed Practice 1-30 (beginning on page 593) (Pages 5-6 for the Mixed Practice)</p> <p><input type="checkbox"/> English and Writing</p> <ul style="list-style-type: none"> <input type="checkbox"/> Read <i>The Creation of the World, The Creation of Man, and Yggdrasil, the World Tree</i> <input type="checkbox"/> Answer worksheet questions (pages 16-17 in your packet) <input type="checkbox"/> Watch video on Sayings & Phrases shot-story assignment. Read instructions in the packet p. 32. Start drafting your story. <p><input type="checkbox"/> Latin -Part 2: Parsing (p. 45) -Part 2: Vocab Check (p. 45)</p> <p><input type="checkbox"/> Spanish: 2: 7B Assessment (p. 57-58)</p>	<p>Geography: Practice map games on Seterra.com, as time allows.</p>
Three	<p><input type="checkbox"/> Math Lesson 111 <i>Applications Using Division</i> Watch the video going over the new concept (Follow along in your math book, page. 601) Answer Practice Set a-d (beginning on page 602 in your math book), and then Mixed Practice 1-30 (beginning on page 603) (Pages 7-8 for the Mixed Practice)</p>	

<p>Three (contd.)</p>	<ul style="list-style-type: none"> <input type="checkbox"/> English and Writing <ul style="list-style-type: none"> <input type="checkbox"/> Read <i>Asgard and the Aesir Gods, Odin, the All-father, and Thor, the Thunder-god</i> <input type="checkbox"/> Answer worksheet questions (pages 18-19 in your packet) <input type="checkbox"/> Copy in cursive (unless your IEP exempts cursive) Mark Antony's speech. P. 27 and 30 <input type="checkbox"/> Latin <ul style="list-style-type: none"> -Part 3: Translation (p. 46) -Part 3: Vocab Check (p. 46) <input type="checkbox"/> Spanish <ul style="list-style-type: none"> 3: ER Verbs in Preterite (p. 59-60) 	<ul style="list-style-type: none"> <input type="checkbox"/> Music <i>Music Visions</i> on pp. 87-93 (required for all IL scholars) <input type="checkbox"/> Art <i>Human Form</i> on pp.96-100 (required for all IL scholars)
<p>Four</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Math Lesson 112 <i>Multiplying and Dividing Integers</i> Watch the video going over the new concept (Follow along in your math book, page 606) Answer Practice Set a-h (page 608), and then Mixed Practice 1-30 (beginning on page 608) (Pages 9-10 for Mixed Practice) <input type="checkbox"/> English and Writing <ul style="list-style-type: none"> <input type="checkbox"/> Read <i>Loki, the God of the Jotun Race, Sif's Golden Hair, and Loki's Monstrous Brood</i> <input type="checkbox"/> Answer worksheet questions (pages 20-22 in your packet) <input type="checkbox"/> Write a 2 (or more)-character short story on lined paper (included), in cursive, using at least 5 sayings or phrases from the packet. Pp. 32-42. <input type="checkbox"/> Latin <ul style="list-style-type: none"> -Part 4: Conjugation Present (p. 47) -Part 4: Vocab Check (p. 47) <input type="checkbox"/> Spanish: <ul style="list-style-type: none"> 4: IR verbs in the preterite (p.61-62) 	<ul style="list-style-type: none"> <input type="checkbox"/> PE Exercise guide p. 102
<p>Five</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Math Lesson 113 <i>Adding and Subtracting Mixed Measures * Multiplying by Powers of Ten</i> Watch the video going over the new concept (Follow along in your math book, page 611) Answer Practice Set a-f (page 613), and then Mixed Practice 1-30 (beginning on page 613) (Pages 11-12 for the Mixed Practice) <input type="checkbox"/> English and Writing <ul style="list-style-type: none"> <input type="checkbox"/> Read <i>Balder, the God of Light, Heimdall the Watchman of Asgard, Njord, Frey and Freya, and Bragi, God of Poetry</i> <input type="checkbox"/> Answer worksheet questions (Pages 23-24) <input type="checkbox"/> Proof-read your Sayings & Phrases short story. Pp 27 and 31 <input type="checkbox"/> Copy in cursive (unless your IEP exempts cursive) Mark Antony's speech. <input type="checkbox"/> Latin <ul style="list-style-type: none"> -Part 5: Catch Up/Review/Study Quizlet Slides for Chapters 2 & 3 <input type="checkbox"/> Spanish <ul style="list-style-type: none"> • Review with quizlet, notes and flashcards 	

PLEASE SIGN AND DATE BELOW BEFORE RETURNING:

Student Full Name (First & Last): _____

Parent Signature: _____

Date: _____

1L Math

Scholar's Name: _____

A N S W E R F O R M

Mixed Practice Solutions

Show all necessary work. Please be neat.

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1L English Literature

Scholar's Name _____

Directions: NO complete sentences needed for this worksheet!

“Introduction”

1. Who were the “the cold-hearted spirits of the mountains and glaciers”?
2. The settlers had a hard life. They encountered many different dangerous creatures. List 3 below. (10)
3. The settlers gods were the _____ (10).
4. Which god was the “ruler of gods and men”?
5. What were the nine worlds that made up his realm? (10)
6. What is the Yggdrasil tree?
7. How were the stories of the Norse people passed on? (11)

“The First Gods and Giants”

1. Niflheim was a “Waste of _____”. Muspelheim was a “place of _____”. What was the gap in between?
2. Who was Ymir? Who were the Jotuns?
3. How were the first two jotuns created? (16)

4. Who were the first three Aesir gods? (18)

5. Who is on page 20 in the picture? What are they doing? Why?

1. What 3 Aesir gods saw the ash and alder tree and thought that they would create man?

2. What were the names of the first two human beings?

3. Why was the "shimmering rainbow" created?

4. Who often disguised himself as "a wise old wanderer" who "often walked among men"? What did he tell the humans they should do if a tired traveler visited their home? (28)

5. What was it the humans were told would not die?

6. Who decided "the fate of every human being"? What were their names?

"Yggdrasil, the World Tree"

1. What did the hawk do at the top of the Yggdrasil tree?

2. Who was Nidhogg? What was it trying to do?

3. How did the tree still live while animals damaged the tree? (32-33)

4. Who were the 9 children of Odin?

5. What happened every morning at the foot of the great tree?

Directions: use complete sentences when answering the questions about each story below. Cursive still!

“Asgard and the Aesir Gods”

1. What was Asgard made of?
2. What was in the middle of Asgard? What happened at that place?
3. Who was the tallest building built for? What was the name of the throne on which he sat?
4. What could be seen from the throne? Who could sit on the throne?

“Odin, the All-father”

1. Explain the picture on page 39. (Make sure to explain the animals and his eye)
2. Who was Mimir? What was he the owner of? What lay in the “thing” Mimir owned?
3. What trade did Mimir and Odin make?

“Thor, the Thunder-god”

1. Who was Thor’s father? What was the Mjolnir?
2. What were two other items Thor had that helped him fight jotuns and trolls?
3. What was unique about the Mjolnir?
4. Who were Magni, Modi, and Sif?

“Loki, the God of the Jotun Race”

1. Explain the picture on page 43. (*What are all those creatures in the picture for?*)
2. Loki was a jotun, but after he became a blood brother of Odin, where did he go?
3. Who was Sigunn? Who was Angerboda?
4. What was Loki *really* like?

Directions: use complete sentences when answering the questions about each story below.

“Sif’s Golden Hair”

1. Who was Sif? What did she have that nobody else did?
2. What is the first main problem of this story?
3. Who did Loki go to for help with fixing the problem? What two additional items did Loki have the gnomes make? Why make those items? (45)
4. What was the spear called that was created? Who received it? What was the ship called? Who received it?
5. “The gnomes had forged it so skillfully, of so many little pieces, that **it** could fold up to fit into a pouch” (46).
What is the **IT** that is bolded in this sentence referring to?
6. Who bet his head that his brother was the best gnome in the world? What did Sindri tell his brother Brokk he had to do the entire time they worked?
7. As Brokk and his brother were working, what animal caused problems for Brokk? What happened?

8. What 3 items did the best gnome create? What were the names the three items received? Who did he give the gifts to?

9. Even though Loki lost, how did he not get the agreed upon punishment for losing?

“Loki’s Monstrous Brood”

1. Describe what the 3 young monsters were. Who did the “children” belong to?

2. What happened to the serpent? What name was it given?

3. What was the Hag’s name? Where was she placed?

4. What was the wolf’s name?

Explain the picture on page 53 (*Make sure to tell me WHO is in the picture and WHAT is happening/WHAT are they doing?*)

“Balder, the God of Light”

1. What must a god never do?

2. Who did Odin and all other gods turn to when they were troubled? Why?

3. What happened everywhere Balder stepped?

4. Even though the Aesir took their problems to Balder, they rarely followed his advice. Why?

5. What were Balder's wife and son's names? Who became the chief judge of the Aesir after studying the laws of the world?

3. Who did the Vanir gods send to the Aesir as “hostages”? What did each of the 3 “hostages” sent do for the Aesir people? (60-62).

4. Why was Freya often sad? She did, however, receive a large hall built by the Aesir. Why was it so large?

“Odin’s Eight-Legged Steed”

1. What is being built at the beginning of the story? Who was going to offer to build it?

2. What did the mason/builder want in return for building the wall? Loki tells the gods to say they will give him those things as long as he builds the wall on TWO conditions . . .

3. Who was the mason/builder really?

4. What creature did Loki lead out from the woods the day he returned to the Aesir gods?

1L Writing and Composition
Scholar's Name: _____

Julius Caesar Memorization

Every year, 1L scholars memorize this speech. This year, you are going to copy it down in cursive on the included lined paper three times - once on day 1, then on day 3, then on day 4. Cursive must be neat. This will be the part of your Writing Grade!

Act III, scene ii – Mark Antony's Speech (Caesar's friend – he speaks at the funeral)

Friends, Romans, countrymen, lend me your ears;

I come to bury Caesar, not to praise him.

The evil that men do lives after them;

The good is oft interred with their bones;

So let it be with Caesar. The noble Brutus

Hath told you Caesar was ambitious:

If it were so, it was a grievous fault,

And grievously hath Caesar answer'd it.

Here, under leave of Brutus and the rest –

For Brutus is an honourable man;

So are they all, all honourable men, --

Come I to speak in Caesar's funeral.

He was my friend, faithful and just to me:

But Brutus says he was ambitious;

And Brutus is an honourable man.

He hath brought many captives home to Rome,

Whose ransoms did the general coffers fill:

Did this in Caesar seem ambitious?

When that the poor have cried, Caesar hath wept:

Ambition should be made of sterner stuff:

Yet Brutus says he was ambitious;

And Brutus is an honourable man.

You all did see that on the Lupercal

I thrice presented him a kingly crown,

Which he did thrice refuse: was this ambition?

Name:

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Handwriting practice lines consisting of multiple sets of three horizontal lines: a solid top line, a dashed middle line, and a solid bottom line.

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Assignment: Read the meanings and examples of the Sayings and Phrases. On the blank lined paper, write a short story involving at least two characters and using at least 5 different sayings/phrases out of this list.

Introducing Sayings and Phrases

Birthday suit #1

Meaning: To be wearing your birthday suit means to be naked.

Example: Enrique was just about to step into the bath when he heard the ice-cream truck coming down his street. He was so excited that he ran outside wearing only his birthday suit!

Origin and History: This saying alludes to the way people come into the world when they are born (that is, on their "birth day"): without any clothes on.

Bite the hand that feeds you #2

Meaning: This idiom means that someone harms or acts ungratefully toward another person or organization that provides help and support.

Example: Julie had outgrown her raincoat, so her grandma surprised her with a brand-new yellow slicker. "Yuck!" said Julie when she opened the package. "I hate yellow!"

"Don't bite the hand that feeds you," cautioned Grandma.

Literary Elements and Devices: metaphor ("bite" represents acting ungrateful or harming someone, and "the hand that feeds you" represents help or support)

Origin and History: The idiom derives from Aesop's fable "The Gardener and the Dog," in which a gardener's dog falls in a well. When the gardener rescues the dog, the dog thinks the gardener is trying to drown him. The dog bites the gardener and is consequently thrown back in the well.

Chip on your shoulder #3

Meaning: The meaning of this idiom is that a person is angry about something and eager to start a fight.

Example: Juana was worried. "When I said 'good morning' to Dennis today, he yelled at me to leave him alone. Did I do something to make him not like me?"

"Don't worry," Gabe comforted her. "It's not your fault. Dennis just has a chip on his shoulder."

Literary Elements and Devices: allusion, metaphor (the chip represents hard feelings or a grudge)

Origin and History: This idiom alludes to an early 19th-century game played by American boys. A boy would place a chip of wood or stone on his shoulder and then dare another boy to knock it off. If the chip was knocked off, the boys would fight.

Count your blessings. #4

Meaning: This proverb means that you ought to be thankful for what you have.



Example: Pauline and Nicholas were riding bikes when Pauline lost control and fell. "Now the paint on my bike is scratched!" she complained.

"Count your blessings," replied Nicholas. "At least you weren't hurt."

Literary Elements and Devices: ellipsis ([You should] count your blessings.)

Origin and History: The origin of this proverb is unknown.

● **Eat crow** *DS*

Meaning: This idiom means to accept disgrace or humiliation for something arrogant or boastful that one has done or said.

Example: The science fair was coming up and Mariana's class was busy working on their projects. Mariana was busy bragging. "My project is sure to win first prize! It'll be way better than any of yours!" She was so busy talking about her project that she forgot to actually work on it.

On the day of the science fair, Mariana's project was not yet finished, and the grand prize was awarded to Marco.

"You deserved to win, Marco," said Mariana, eating crow. "Your project really was the best."

Literary Elements and Devices: allusion

Origin and History: This idiom alludes to an incident that supposedly occurred during the War of 1812. During an armistice in the war, an American soldier crossed the Niagara River past British lines. While hunting, the soldier shot a crow, but he was caught by a British officer. The officer forced the American soldier to take a bite out of the uncooked crow as punishment for his violation of British territory.

● **Eleventh hour** *#6*

Meaning: This idiom means "at the last possible moment."

Example: Kenji wanted to take Erica to the school formal, but he was too shy to ask her. He worried for weeks about what she might say. On the day of the dance, Kenji still hadn't gathered the courage to ask. He was resigned to going to the formal alone. At the eleventh hour, however, he got a phone call; it was Erica, asking him to the dance!

Literary Elements and Devices: allusion

Origin and History: This idiom is a biblical allusion to Matthew 20:9, in which workers hired at the eleventh hour get paid the same amount of money for an hour's work as do those who work for twelve hours.

● **Eureka!** *#4*

Meaning: This Greek word (*heureka*) means "I have found it!" This idiom is used to express joy or excitement when a discovery is made or when an answer to a difficult problem or question is found.

Example: It was the first snowfall of the season, and Malik took out his warmest winter clothes. He found his hat, his scarf, and one mitten. "But where is the other mitten?" he wondered. "It does me no good to have only one." He searched and he searched for the missing mitten. Finally, he decided he would need to go out and buy a new pair.

Malik took down his winter coat and put it on. As his arm entered the sleeve, his missing mitten fell out. "Eureka!" he cried. "I have found it!"

Teaching Idea

Introduce the saying "Eureka" by telling students the story of Archimedes and the crown of gold. The story is available in many anthologies and also on a recording by storyteller Jim Weiss, *Galileo and the Stargazers*. (See *More Resources*.)

V. Sayings and Proverbs

Literary Elements and Devices: allusion

Origin and History: This idiom dates back at least to the 3rd century BCE. There is a famous story about this saying. Hiero, king of Syracuse in ancient Greece, gave a goldsmith 10 pounds of gold to make a magnificent crown. The goldsmith delivered the crown. It was a beautiful piece of work, but the king was suspicious and wondered if it was really solid gold, or if the goldsmith had used some less precious metal for the insides. He asked the mathematician and scientist Archimedes to find a way to determine whether the crown was all gold. Archimedes thought about the problem for days. One day he was thinking about the problem as he prepared to take a bath. His tub was full to the brim, and as he stepped into it, water flowed out upon the stone floor. Archimedes thought, "How much water did I displace? Obviously I displaced a bulk of water equal to the bulk of my body. Now suppose, instead of lowering myself into the tub, I had lowered Hiero's crown into it. The crown would have displaced a bulk of water equal to its own bulk. Now, gold is much denser than silver. Ten pounds of pure gold will not make so great a bulk as seven pounds of gold mixed with three pounds of silver. If Hiero's crown is really pure gold, it will displace the same amount of water as any other 10 pounds of pure gold. But if it is part gold and part silver, it will displace a larger amount. That's the answer!" Then, forgetting about everything else, Archimedes leaped out of the bath and, without getting dressed, ran through the streets to the king's palace shouting, "Eureka!" which in English means, "I have found it!" The crown was tested and found to displace much more water than 10 pounds of pure gold displaced. And so the guilt of the goldsmith was proved beyond a doubt.



☉ Every cloud has a silver lining. #8

Meaning: This proverb means that there is always hope, even when unfortunate events happen.

Example: Isobel's mother lost her job. "The restaurant went out of business," she moaned. "Now I don't know what I'll do."

"Every cloud has a silver lining," consoled Isobel. "You always wanted to be an artist. Now you'll have more time to paint."

Literary Elements and Devices: metaphor ("cloud" represents a bad situation and "silver lining" represents hope). Ask students, "What do the cloud and the silver lining represent?"

Origin and History: English poet John Milton (1608–1674) used this proverb in his poem "Comus" (1634).

☉ Few and far between #9

Meaning: The meaning of this idiom is that something is rarely seen or rarely happens.

Example: Deserts are very hot and dry; rainstorms are few and far between.

Literary Elements and Devices: alliteration (few, far). Ask students, "Which two words begin with the same consonant?"

Origin and History: This idiom appeared in "The Pleasures of Hope" (1799), by Scottish poet and journalist Thomas Campbell (1777–1844).



Forty winks #10

Meaning: This idiom means "a short nap."

Example: It was New Year's Eve and Albert was so tired he could hardly keep his eyes open, but he wanted to be awake for the big fireworks display at midnight. "I'm going to go catch forty winks," he told Minh-Wei. "Make sure I'm up before the fireworks start!"

Origin and History: This idiom has been in use since the 19th century. Its first known appearance was in 1872 in the British humor magazine *Punch*.

The grass is always greener on the other side of the hill. #11

Meaning: This proverb means that some people feel that what they have is not as good as what other people have.

Example: "You're so lucky!" said Candace to Theo. "I wish I had cool freckles, like you."

"I always envied you because you don't have freckles," answered Theo. "I guess the grass is always greener on the other side of the hill."

Literary Elements and Devices: alliteration (grass, greener)

Origin and History: This proverb can be traced to about 1545 in England.



To kill two birds with one stone #12

Meaning: This idiom means "do only one thing to accomplish two goals."

Example: Hakim called up his friend, Susan. "It's been so long since we've seen each other. Will you come to my house for dinner tomorrow?"

"Oh, I'd like to," Susan replied, "but my sister is visiting me this week."

"I've always wanted to meet your sister," said Hakim. "Why don't you both come? That way we can kill two birds with one stone."

Literary Elements and Devices: antithesis (two, one), parallelism (two birds, one stone), metaphor (the stone represents one solution or effort, and the two birds represent multiple objectives or goals)

Origin and History: This idiom can be traced to 17th-century England and may refer to the use of a slingshot to kill birds.

Lock, stock, and barrel #13

Meaning: The idiom refers to the three parts of a flintlock rifle: the lock is the firing mechanism, the stock is the handle, and the barrel is the long, round chamber through which a bullet is fired. The meaning of this idiom is "absolutely everything," or "all the parts."

Example: "At first, Chandra only wanted to sell me half of her baseball card collection, but I offered such a good price that I was able to get the whole set, lock, stock, and barrel."

Literary Elements and Devices: rhyme (lock, stock), metaphor ("lock, stock, and barrel" represents something that is complete or whole; without these three parts, a gun will not operate properly)

V. Sayings and Proverbs

Teaching Idea

Invite students to think of real-life situations in which "A miss is as good as a mile" might apply. For example, a sports team may lose an important game by a single point or a politician may lose an election by only a few votes, and so on.



Origin and History: This saying can be traced to the 18th century during the settling of the American West.

Make a mountain out of a molehill #14

Meaning: This idiom means that a person makes a big fuss over something that is not really important.

Example: "You were supposed to meet me at four PM sharp!" screamed Henry. "How dare you be late!"

"Stop making a mountain out of a molehill," replied Edson, calmly. "It's only 4:03. It's not like you were waiting all day!"

Literary Elements and Devices: antithesis (mountain, molehill), hyperbole (being able to make a mountain from a molehill is a gross exaggeration), alliteration (make, mountain, molehill), metaphor (a mountain represents something important and a molehill represents something trivial)

Origin and History: The origin of this proverb is unknown.

A miss is as good as a mile. #15

Meaning: This proverb means that a failure is a failure whether you miss your objective by a little or by a whole lot.

Example: Madeline approached Mr. Quinn after class, holding her algebra test. "I missed the answer to number 2 by only one decimal point. Can't I get partial credit?"

"Sorry, Madeline," said Mr. Quinn, "but in math, a miss is as good as a mile."

Literary Elements and Devices: alliteration (miss, mile)

Origin and History: This proverb dates back to 1614 in England (An ynche in a misse is as good as an ell). The original proverb meant that an inch in a miss might as well be an ell, or a measurement equivalent to 45 inches. In hunting, carpentry, or other pursuits that demand precision, one can ill afford to miss a target or goal by any amount, even by a measurement as small as an inch.

It's never too late to mend. #16

Meaning: This proverb means that it is always possible to improve yourself or change for the better.

Example: "I lost several friends because I was too bossy. I guess it's never too late to mend, though. I will try to be a better friend from now on."

Literary Elements and Devices: metaphor ("mend" represents improvement)

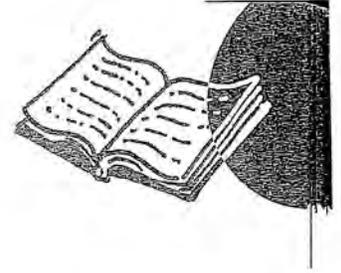
Origin and History: This proverb dates to about 1590 in England and is found in the papers of George Clinton, the first governor of New York (1778).

Out of the frying pan and into the fire #17

Meaning: This idiom is used to describe the experience of trying to get out of a bad situation only to get into an even worse one.

Example: Celina slept through her alarm and was late for school. "I'm going to get in trouble! I'd better write a note saying that I was at Dr. Lee's office this morning."

When she handed her forged note to the teacher, Mrs. Patel raised an eyebrow. "Being late for school is bad enough, but you've jumped out of the frying pan and into the fire: Dr. Lee was here this morning for Career Day."



Literary Elements and Devices: alliteration (frying, fire), metaphor (the frying pan represents a bad experience, while the fire represents an even worse experience), antithesis (out, into). Ask students, "Which two words have the opposite meaning?"

Origin and History: This idiom has been used in various forms since the 3rd century CE and is found in Greek (Out of the smoke, into the flame), Russian, and French. It appears in William Shakespeare's plays and in the writings of Sir Thomas More. The idiom derives from cooking practices before electric and gas stoves were invented. As cooks held or suspended a frying pan over an open fire, meats and other foods would often jump from the pan to the fire, where they were burnt to a crisp.

● A penny saved is a penny earned. #18

Meaning: The meaning of this proverb is that saving money instead of spending it is nearly the same as earning money because the end result is the same; you will have additional money in your pocket.

Example: "Mom gave me a dollar to buy a cheeseburger, but a hot dog is only eighty cents. I think I'll get the less expensive lunch; a penny saved is a penny earned!"

Literary Elements and Devices: repetition (penny), parallelism (A penny saved is a penny earned). Ask students, "Which words or phrases follow the same pattern?"

Origin and History: This proverb is found in George Herbert's *Outlandish Proverbs* (1640) and appears in Benjamin Franklin's *Poor Richard's Almanack* (1732-1757).

● Read between the lines #19

Meaning: This idiom means to go past the surface meaning of what someone says or does to find the true meaning.

Example: Lucas was upset. "Every time I ask Dyan to come to the pool with me, she makes up some lame excuse! I can't figure out what's up."

"I think you need to read between the lines," said Sanouk. "Maybe Dyan doesn't know how to swim, and she is ashamed to tell you."

Literary Elements and Devices: metaphor ("between the lines" represents looking beyond the obvious)

Origin and History: This saying may derive from one method of cryptography, or secret writing, in which a coded message made sense only when alternate lines were read.

● Sit on the fence #20

Meaning: This idiom means that a person refuses to take sides, to commit to something, or to make up his or her mind.

Example: "I've had three weeks to decide whether to sign up for the softball team or the drama club, but I'm really sitting on the fence on this one. I just can't make up my mind."

Literary Elements and Devices: metaphor (the fence represents what separates two different points of view)

Origin and History: This idiom has been in use in the United States since the 19th century.

V. Sayings and Phrases

Steal his/her thunder #21

Meaning: This idiom means that one person takes credit for another's idea or uses it before the other person has an opportunity to do so.

Example: Jamie came home from school with a sad look on his face. "I had a great idea for the fifth-grade fundraiser, and so Maria and I called a meeting of the student council. Before I had a chance to speak, Maria piped up with my idea. She really stole my thunder."

Literary Elements and Devices: metaphor (thunder represents a person's achievement or accomplishment)

Origin and History: In 1709, playwright John Dennis (1657–1734) wrote a tragedy called *Appius and Virginia*. The play was a flop; however, one successful feature of the play was its sound effects, especially a realistic sound of thunder-claps. Later, when Dennis attended a successful performance of *Macbeth* by William Shakespeare, he recognized a close imitation of his sound effects during the witches' scene. Dennis was angry that the show "stole his thunder."



Take the bull by the horns #22

Meaning: This proverb means that a person stops hesitating and takes action to deal with a difficult situation.

Example: "I'm afraid that Bianca is going to lower our grade on this group project," said Lauren. "I keep suggesting that she help out with the research, but she never does any of the reading."

"Well, you need to take the bull by the horns," answered Daniel. "Tell her that if she doesn't start doing her share of the work, she can't be part of our group, even if she is your best friend."

Literary Elements and Devices: alliteration (bull, by), metaphor (the bull represents a difficult situation that must be confronted directly)

Origin and History: This proverb derives from the matador's practice of taking a bull by the horns during a bullfight to avoid being tossed. This saying has been in use since the late 19th century when bullfights became a form of international entertainment for tourists, and rodeos became popular in the American West.

Till the cows come home #23

Meaning: The literal meaning of this idiom refers to the time when cows in the fields return to the barn at the end of a long day. People use this idiom when something is not going to happen for a very long time.

Example: Mom yelled up the stairs, "Lana! Dinner's ready!"

Dad laughed. "You can holler till the cows come home, but she's not coming down. Lana's at soccer practice, remember?"

Literary Elements and Devices: alliteration (cows, come), metaphor ("till the cows come home" represents a long amount of time)

Origin and History: This idiom has been popular since the 19th century. It refers to the way cows take a long time to reach the barn because they often meander and stray on their way home from the fields.



Time heals all wounds. #24

Meaning: The meaning of this proverb is that the passage of time helps lessen the hurt of physical and psychological wounds.

Example: "Henry promised he'd let me go to the drag races with his family, but then he took Jaleel. I hate him! I'm never speaking to Henry again!"

"I know you're disappointed," counseled Keisha, "but you'll get over it. Time heals all wounds."

Literary Elements and Devices: hyperbole (time can heal many wounds but not all of them)

Origin and History: English poet Geoffrey Chaucer (c. 1340–1400) used this proverb in 1374. It has been in use in the United States since at least 1830.

Tom, Dick, and Harry #25

Meaning: This idiom means "just about anybody," or ordinary, run-of-the-mill types of people.

Example: "When I joined this country club, I was assured that it was exclusive. Now that I've been a member for a while, I realize that it will admit every Tom, Dick, and Harry."

Origin and History: This Victorian idiom incorporates three common English names to signify the ordinary man in the street. The name *Tom* has been the generic name for a jester since the 1400s, and the trio of Tom, Dick, and Harry was associated with buffoons, or clowns, in the 16th century.

Vice versa #26

Meaning: This Latin expression means "the same as before but in reverse order."

Example: "Yasmin and I are starting a band. Either I'll be the lead singer and she'll sing backup or vice versa."

Literary Elements and Devices: alliteration (vice, versa)

Origin and History: The Latin word *vice* means "position," and the Latin word *versa* means "turn." This expression has been in use in English since 1601.

A watched pot never boils. #27

Meaning: This proverb cautions a person to be more patient; sometimes when you are very eager for something to happen, it seems to take even longer.

Example: Samuel growled and banged a fist on the computer keyboard. "This website is taking forever to load! Why won't it hurry up?"

"Calm down," answered LeVar, "a watched pot never boils."

Literary Elements and Devices: hyperbole (A watched pot will eventually boil), metaphor (a watched pot represents something that is waited for anxiously)

Origin and History: English novelist Elizabeth Gaskell used this proverb in *Mary Barton* (1848).

Well begun is half done. #28

Meaning: This proverb means that if you begin a project or task the right way, you are halfway to your goal and will find it easier to finish.

Classical School
Appleton, Wisconsin

V. Sayings and Phrases

Example: "Have you started writing your book report yet?" asked Su-Lin.

"Not yet," replied Kenneth, "but I have a great outline written. And well begun is half done!"

Literary Elements and Devices: rhyme (begun, done), ellipsis ([What is] well begun is half done), parallelism (Well begun is half done). Ask students, "Which two words end with the same or similar sounds?"

Origin and History: This proverb can be traced back to the Roman poet Horace (65–8 BCE) in *Epistles* (He who has made a beginning, has half done.) It also appears in Middle English sermons in about 1415 and was used by the English writer Oliver Goldsmith in 1775.

Teaching Idea

You may wish to play a recording of the song "Que Será Será" for the class.

What will be will be. #29

Meaning: This proverb means that you cannot change what is going to happen.

Example: Sanjit waited anxiously as the votes for class president were being counted. "If only I had started campaigning sooner, I definitely would win."

"There's no use worrying about it now," said Robert, "the votes are already in. What will be will be."

Literary Elements and Devices: parallelism (What will be will be), repetition (will be), alliteration (what, will). Ask students, "Which words are repeated?"

Origin and History: This proverb was used in "The Knight's Tale" (1390) by English poet Geoffrey Chaucer (c. 1340–1400) and appears in *Heywood's Collection* (1546), a collection of proverbs by John Heywood. It is best known from the popular song "Que Será Será," which is how the proverb is expressed in Spanish.

The Big Idea in Review

Sayings and phrases are important to study because they are widely used in everyday language and writing, and their meanings are not always immediately clear.

Name:

Date:

Handwriting practice lines consisting of multiple sets of three horizontal lines: a solid top line, a dashed middle line, and a solid bottom line.

Name:

Date:

Handwriting practice lines consisting of multiple sets of three horizontal lines: a solid top line, a dashed middle line, and a solid bottom line.

1L Latin

Scholar's Name _____

Nomen _____ Classis _____

1L Latin Distance Learning May 29 – June 4

Part 1: Declension

Directions: *Decline “This Sister” using hic, haec, hoc and soror, sorōris, f. then translate the SINGULAR.* Remember to agree in gender. Use Charts P & C.

Case	Singular	Plural	Translation (SINGULAR)
Nominative			
Genitive			
Dative			
Accusative			
Ablative			

Part 1: Vocab

antiquus _____

īra _____

nauta _____

poena _____

rosa _____

tuus _____

forma _____

meus _____

pecunia _____

porta _____

sententia _____

Nomen _____ Classis _____

Part 2: Parsing

Directions: *Parse each verb by providing the person, number, and tense then translate.* Use Charts **D, E, F, I, J, K, S, T, & U**

Verb	Person	Number	Tense	Translation
cōgitābunt (F)				
discēbamus (J)				
audient (U)				
cōservātis (D)				
venis (S)				
capiēbam (E)				
culpābit (F)				
manēs (D)				

Part 2: Vocab Check

fāma	_____	fortuna	_____
magnus	_____	multus	_____
O	_____	philosophia	_____
poeta	_____	puella	_____
sed	_____	sine	_____
vita	_____		

Nomen _____ Classis _____

Part 3: Translation

Directions: *Translate the following sentence. USE YOUR VOCAB. If it doesn't make sense in English, then you've done it wrong. *Tip, translate pecuniae as if it were in the Dative case (what's the magic word). **Tip, Refer to Chart O to translate erunt.*

istī hominēs propter cupiditātem pecūniae erunt nimis stultī.

Part 3: Vocab Check

ager	_____	amicus	_____
dē	_____	filia	_____
habēre	_____	in	_____
paucī	_____	puer	_____
sapientia	_____	semper	_____

Part 4: Conjugation Present

Directions: Conjugate and translate the 3rd Conjugation verb fugiō, fugere, fūgī, fugitūrum (to flee) in the **PRESENT** tense. The Present stem for the 3rd Conj. is found by chopping off the **-ere** from the 2nd Principal Part. The Imperative singular is the **stem + e**, and the plural is **stem + ite**. The infinitive is exactly the same as the entire 2nd Principal Part and translated as **to “verb”**.

Person	Singular	Translation
1 st	ego	
2 nd	tū	
3 rd	is/ea/id	
Person	Plural	Translation
1 st	nōs	
2 nd	vōs	
3 rd	eī/dae/ea	
Imperative Singular		Imperative Plural
Translation (Same for both)		
Infinitive		Translation

Part 4: Vocab Check

agricola	_____	avārus	_____
fēmina	_____	filius	_____
hodie	_____	numerus	_____
populus	_____	Romanus	_____
satiāre	_____	vir	_____

1.	antiquus, antiqua, antiquum	ancient, old-time
2.	est	is
3.	et	and; even
4.	fāma, fāmae f.	rumor, report; fame, reputation
5.	fōrma, fōrmae, f.	form, shape; beauty
6.	fortūna, fortūnae, f.	fortune, luck
7.	īra, īrae, f.	ire, anger
8.	magnus, magna, magnum	large, great, important
9.	meus, mea, meum	my
10.	multus, multa, multum	much, many
11.	nauta, nautae, m.	sailor
12.	Ō	Oh!
13.	pecūnia, pecūniae, f.	money
14.	philosophia, philosophiae, f.	philosophy
15.	poena, poenae, f.	penalty, punishment
16.	poēta, poētae, m.	poet
17.	porta, portae, f.	gate, entrance
18.	puella, puellae, f.	girl
19.	rosa, rosae, f.	rose
20.	sed	but
21.	sententia, sententiae, f.	feeling, thought, opinion, vote, sentence
22.	sine	without
23.	tuus, tua, tuum	your
24.	vīta, vītae, f.	life; mode of life

1.	ager, agrī, m.	field, farm
2.	agricola, agricolae, m.	farmer
3.	amicus, amīcī, m.	friend
4.	avārus, avāra, avārum	greedy, avaricious
5.	dē	concerning, about; down from, from
6.	fēmina, fēminae, f.	woman
7.	fīlia, fīliae, f. (dat. and abl. pl fīliābus)	daughter
8.	fīlius, fīliī, m.	son
9.	habēō, habēre, habuī, habitum	to have, hold, possess; consider, regard
10.	hodiē	today
11.	in	in, on
12.	numerus, numerī, m.	number
13.	paucī, paucae, pauca	few, a few
14.	populus, populī, m.	the people, a people, a nation
15.	puer, puerī, m.	boy
16.	Rōmānus, Rōmāna, Rōmānum	Roman
17.	sapientia, sapientiae, f.	wisdom
18.	satiō, satiāre, satiāvī, satiātum	to satisfy, sate
19.	semper	always
20.	vir, virī, m.	man, hero

A

1L Latin CHEAT SHEET

1st Declension:

Case	Singular	Plural
Nominative	-a	-ae
Genitive	-ae	-ārum
Dative	-ae	-īs
Accusative	-am	-ās
Ablative	-ā	-īs
Vocative	-a	-ae

2nd Declension:

B

Case	Singular	Plural
Nominative	-us/er/ um (N)	-ī/-a (N)
Genitive	-ī	-ōrum
Dative	-ō	-īs
Accusative	-um	-ōs/ -a (N)
Ablative	-ō	-īs
Vocative	-e/er	-ī/-a (N)

3rd Declension:

C

Case	Singular	Plural
Nominative	Word	-ēs/-a(N)
Genitive	-is	-um
Dative	-ī	-ibus
Accusative	-em/Word(N)	-ēs/-a(N)
Ablative	-e	-ibus
Vocative	Word	-ēs/-a(N)

Present Tense Endings (1/2): NONE/am, is, are

D

Person	Singular	Plural
1 st	-ō	-mus
2 nd	-s	-tis
3 rd	-t	-nt

Imperfect Tense Endings (1/2) WAS/WERE

E

Person	Singular	Plural
1 st	-bam	-bāmus
2 nd	-bās	-bātis
3 rd	-bat	-bant

Future Tense Endings (1/2): WILL

F

Person	Singular	Plural
1 st	-bō	-bimus
2 nd	-bis	-bitis
3 rd	-bit	-bunt

Personal Pronouns:

G

Person	Singular	Plural
1 st	I	We
2 nd	You	You all
3 rd	HSI	They

Functions of the Cases: H

Case	Function	Translation
Nom.	Subject	The, a
Gen.	Possession	Of
Dat.	Indirect Object	To-For
Acc.	Direct Object	The, a
Abl.	Object of a Preposition	By-with-from
Voc.	Direct Address	NONE

Present Tense Endings (3rd)

NONE/am, is, are

I

Person	Singular	Plural
1 st	-ō	-imus
2 nd	-is	-itis
3 rd	-it	-unt

Imperfect Tense Endings (3rd)

WAS/WERE

J

Person	Singular	Plural
1 st	-ēbam	-ēbāmus
2 nd	-ēbās	-ēbātis
3 rd	-ēbat	-ēbant

Future Tense Endings (3rd)

WILL

K

Person	Singular	Plural
1 st	-am	-ēmus
2 nd	-ēs	-ētis
3 rd	-et	-ent

The Nine Muses “TUM PEC CET” L

1.) Thalia—Comedy & Idyllic Poetry

2.) Urania—Astronomy

3.) Melpomone—Tragedy

4.) Polyhymnia—Sacred Music

5.) Erato—Love Poetry

6.) Clio—History

7.) Calliope—Epic Poetry & Eloquence

8.) Euterpe—Lyric Poetry

9.) Terpsichore—Dance

M

Present Forms of Sum, Esse, Fui, Futurus

Person	Singular	Plural
1 st	sum I am	sumus we are
2 nd	es you are	estis you all are
3 rd	est he, she, it is	sunt they are

Imperfect Forms of Sum, Esse, Fui, Futurus

N

Person	Singular	Plural
1 st	eram I was	erāmus we were
2 nd	erās you were	erātis you all were
3 rd	erat he, she, it was	erant they were

Future Forms of Sum, Esse, Fui, Futurus

O

Person	Singular	Plural
1 st	erō I will be	erimus we will be
2 nd	eris you will be	eritis you all will be
3 rd	erit he, she, it will be	erunt they will be

P

Demonstrative Chart: Hic, Haec, Hoc

Case	Masc Sg	Fem Sg	Neut Sg	Trans. Sg	Masc Pl	Fem Pl	Neut Pl	Trans. Pl
Nom	hic	haec	hoc	This	hī	hae	haec	These
Gen	huius	huius	huius	of this	hōrum	hārum	hōrum	of these
Dat	huic	huic	huic	to-for this	hīs	hīs	hīs	to-for these
Acc	hunc	hanc	hoc	this	hōs	hās	haec	these
Abl	hōc	hāc	hōc	BWF this	hīs	hīs	hīs	BWF these

Q

Demonstrative Chart: Ille, Illa, Illud

Case	Masc Sg	Fem Sg	Neut Sg	Trans. Sg	Masc Pl	Fem Pl	Neut Pl	Trans. Pl
Nom	ille	illa	illud	That	illī	illae	illa	Those
Gen	illius	illius	illius	of that	illōrum	illārum	illōrum	of those
Dat	illī	illī	illī	to-for that	illīs	illīs	illīs	to-for those
Acc	illum	illam	illud	that	illōs	illās	illa	those
Abl	illō	illā	illō	BWF that	illīs	illīs	illīs	BWF those

R

Special -ius Adjective Endings:

Case	Masc Sg	Fem Sg	Neut Sg	Masc Pl	Fem Pl	Neut Pl
Nom	-us	-a	-um	-ī	-ae	-a
Gen	-ius	-ius	-ius	-ōrum	-ārum	-ōrum
Dat	-ī	-ī	-ī	-īs	-īs	-īs
Acc	-um	-am	-um	-ōs	-ās	-a
Abl	-ō	-ā	-ō	-īs	-īs	-īs

Present Tense Endings (3rd-io/4th)

NONE/am, is, are

S

Person	Singular	Plural
1 st	-iō	-īmus
2 nd	-īs	-ītis
3 rd	-it	-iunt

Imperfect Tense Endings (3rd-io/4th)

WAS/WERE

T

Person	Singular	Plural
1 st	-iēbam	-iēbāmus
2 nd	-iēbās	-iēbātis
3 rd	-iēbat	-iēbant

Future Tense Endings (3rd-io/4th)

WILL

U

Person	Singular	Plural
1 st	-iam	-iēmus
2 nd	-iēs	-iētis
3 rd	-iet	-ient

Perfect Tense (All Conj.)

V

Magic Words: have, has, + Past Participle (-ed)

Ex. I have verbed, HSI has verbed

Person	Singular	Plural
1 st	-ī	-imus
2 nd	-istī	-istis
3 rd	-it	-erunt

Pluperfect Tense (All Conj.)

W

Magic Words: had + Past Participle (-ed)

Ex. I had verbed, HSI had verbed

Person	Singular	Plural
1 st	-eram	-erāmus
2 nd	-erās	-erātis
3 rd	-erat	-erant

Future Perfect Tense (All Conj.)

X

Magic Words: will have + Past Participle (-ed)

Ex. I will have verbed, HSI will have verbed

Person	Singular	Plural
1 st	--erō	-erimus
2 nd	-eris	-eritis
3 rd	-erit	-erint

1st Person Singular Pronoun Chart:

Y

Case	Singular	Translation
Nom	ego	I
Gen	meī	of me
Dat	mihi	to me
Acc	mē	me
Abl	mē	by-with-from me

1st Person Plural Pronoun Chart:

Z

Case	Plural	Translation
Nom	nōs	We
Gen	nostrum/ nostrī	of us,our
Dat	nōbīs	to us
Acc	nōs	us
Abl	nōbīs	by-with-from us

2nd Person Singular Pronoun Alpha

Case	Singular	Translation
Nom	tū	You
Gen	tuī	of you
Dat	tibi	to you
Acc	tē	you
Abl	tē	by-with-from you

2nd Person Plural Pronoun: Bravo

Case	Singular	Translation
Nom	vōs	You all
Gen	vestrum/ vestrī	of you all
Dat	vōbīs	to-for you all
Acc	vōs	you all
Abl	vōbīs	by-with-from you all

3rd Person Pronoun Chart:

SINGULAR Charlie

Case	Masculine	Masc Trans	Feminine	Fem Trans	Neuter	Neut Trans
Nominative	is	He	ea	She	id	It
Genitive	eius	his	eius	her	eius	its
Dative	eī	to-for him	eī	to-for her	eī	to-for it
Accusative	eum	him	eam	her	id	it
Ablative	eō	By-With-From him	eā	By-With-From her	eō	By-With-From it

PLURAL Charlie

Case	Masculine	Feminine	Neuter	Plural Trans
Nominative	eī	eae	ea	They
Genitive	eōrum	eārum	eōrum	their/of them
Dative	eīs	eīs	eīs	to-for them
Accusative	eōs	eās	ea	them
Ablative	eīs	eīs	eīs	by-with-from them

1L Spanish

Scholar's Name _____

1L SPANISH

JUN 1– JUN 5

- **DAY 1 & 2: Chapter 7B Comprehension Assessment**
- **DAY 3: -ER Verbs in the Preterite Tense**
- **DAY 4: - IR Verbs in the Preterite Tense**
- **DAY 5: Review reference page notes, any new vocabulary, and/or previously learned notes and vocab.**
 - **Quizlet:** <https://quizlet.com/join/ZFmTs8Npr>

Comprehension Assessment,

****you may use notes on parts C & E, try to do A, B & D without looking them up!**

A. Choose the correct word in the opposite language

- | | | | |
|----------------------|-----------------|-------------------|-------------------------|
| 1. la corbata | a) the cobra | b) the tie | c) the chain |
| 2. the watch | a) el watcho | b) la pulsera | c) el reloj pulsera |
| 3. la librería | a) the library | b) the book store | c) the book |
| 4. cheap | a) barato | b) el cheapo | c) caro |
| 5. ayer | a) a year | b) yesterday | c) tomorrow |
| 6. online | a) en la Red | b) la linea | c) después |
| 7. la pulsera | a) the bracelet | b) the pulse | c) the watch |
| 8. the jewelry store | a) la tienda | b) la joyería | c) las joyas |
| 9. the wallet | a) la corbata | b) la bolsa | c) la cartera |
| 10. el almacén | a) the market | b) the almond | c) the department store |

B. Write the meaning in the opposite language

- _____ the discount store
- _____ el bolso
- _____ los guantes
- _____ the software
- _____ los aretes

C. Rewrite the sentence changing the direct object(s) to direct object pronouns):

1. Mi papá compró el anillo para mí.

2. La tienda vendió las cadenas.

3. Yo busqué los anteojos de sol.

4. Ellos compraron camisas nuevas.

5. Flavio y yo buscamos la pulsera.

El pretérito → -er Verbs

A. Review the following chart below with the correct preterit conjugation **endings** for -er verbs.

Yo	í	Nosotros Nosotras	imos
Tú	iste	Vosotros Vosotras	isteis
Él Ella Nosotros	ió	Ellos Ellas Ustedes	ieron

B. Write the correct preterite conjugation of each verb in the parenthesis in the box next to each sentence.

FRASE (Sentence)	RESPUESTA (Answer)
1. Tú _____ (correr) por el parque.	
2. Yo _____ (beber) los refrescos anoche.	
3. Ellas _____ (vender) dulces la semana pasada.	
4. Nosotros _____ (aprender) a leer y escribir.	
5. Él _____ (comer) en el restaurante ayer.	
6 – 10 only for returning students, new students = optional	
6. Ella _____ (concer) a tu familia.	
7. Yo _____ (comer) un perro caliente el verano pasado.	
8. Ellos _____ (beber) mucho agua.	
9. Él _____ (nacer) hace diez años.	
10. Tú _____ (comer) mucha comida ayer.	

C. Fill in the charts below with the correct preterit tense conjugations for each verb. ** New students choose 4 verbs to complete.

COMER - TO EAT

comí	
	comisteis
comió	

BEBER - TO DRINK

	bebimos
bebiste	

APRENDER - TO LEARN

aprendiste	aprendisteis

CORRER - TO RUN

corrí	corrimos

CREER - TO BELIEVE

	creimos
	creisteis
	creieron

VENDER - TO SELL

vendí	
vendiste	
vendió	vendieron

RECIBIR - TO RECEIVE

recibí	
recibiste	
recibió	

CONOCER - TO KNOW

	conocimos
conociste	
conoció	

El pretérito → -ir Verbs

D. Review the following chart below with the correct preterit conjugation endings for -ir verbs.

Yo	í	Nosotros Nosotras	imos
Tú	iste	Vosotros Vosotras	isteis
Él Ella Nosotros	ió	Ellos Ellas Ustedes	ieron

E. Write the correct preterite conjugation of each verb in the parenthesis in the box next to each sentence.

FRASE (Sentence)	RESPUESTA (Answer)
1. Yo _____ (escribir) las frases anoche.	
2. Ella _____ (abrir) las ventanas anteayer.	
3. Tú _____ (asistir) a la escuela el año pasado.	
4. Ellos _____ (salir) de casa ayer.	
5. Usted _____ (escribir) en la clase ayer.	
6-10 for returning students, new students = optional	
6. Ellas _____ (abrir) la puerta.	
7. Ustedes _____ (salir) de la escuela.	
8. Yo _____ (asistir) a la escuela secundaria.	
9. Tú _____ (escribir) una lista de la compra.	
10. Ella _____ (recibir) unos regalos.	

F. Fill in the charts below with the correct preterit tense conjugations for each verb. **New students choose 4 verb charts to complete.

VIVIR - TO LIVE

viví	
	vivisteis
vivió	

ESCRIBIR - TO WRITE

	escribimos
escribiste	
	escribieron

ABRIR - TO OPEN

abrí	
abriste	
	abrieron

ASISTIR (A) - TO ATTEND

	asistimos (a)
	asististeis (a)
	asistieron (a)

DECIDIR - TO DECIDE

	decidimos

SALIR - TO LEAVE

salió	

1L Science

Scholar's Name _____

DISCOVER

What Are Feathers Like?

1. Examine a feather. Observe its overall shape and structure. Use a hand lens to examine the many hairlike barbs that project out from the feather's central shaft.
2. With your fingertip, gently stroke the feather from bottom to top. Observe whether the barbs stick together or separate.
3. Gently separate two barbs in the middle of the feather. Rub the separated edges with your fingertip.



ACTIVITY

4. Use a hand lens to examine the feather, including the edges of the two separated barbs. Draw a diagram of what you observe.
5. Now rejoin the two separated barbs by gently pulling outward from the shaft. Then wash your hands.

Think It Over

Observing Once barbs have been separated, is it easy to rejoin them? How might this be an advantage to the bird?

GUIDE FOR READING

- ◆ What characteristics do birds have in common?
 - ◆ How are birds adapted to their environments?
- Reading Tip** Before you read, look at *Exploring a Bird* on page 123 and make a list of unfamiliar terms. As you read, write definitions for the terms.

One day in 1861, in a limestone quarry in what is now Germany, Hermann von Meyer was inspecting rocks. Meyer, who was a fossil hunter, spotted something dark in one of the rocks. It was the blackened fossil imprint of a feather! Excited, Meyer began searching for a fossil of an entire bird. Though it took a month, he eventually found what he was looking for—a skeleton surrounded by the clear imprint of many feathers. The fossil was given the scientific name *Archaeopteryx* (ahr-keeh AHF tur-iks), meaning “ancient, winged thing.”

Paleontologists estimate that *Archaeopteryx* lived about 145 million years ago. *Archaeopteryx* didn't look much like the birds you know. It looked more like a reptile with wings. While no modern bird has any teeth, *Archaeopteryx* had a mouthful of them. No modern bird has a long, bony tail, either, but *Archaeopteryx* did. However, unlike any reptile, extinct or modern, *Archaeopteryx* had feathers—its wings and tail were covered with them. Paleontologists think that *Archaeopteryx* and today's birds descended from some kind of reptile, possibly from a dinosaur.

Figure 1 The extinct bird *Archaeopteryx* may have looked like this.



READING STRATEGIES

Reading Tip After students write definitions for unfamiliar terms, instruct them to write sentences in which they use each term. Then have students rewrite the sentences on a separate sheet of paper, omitting the key terms and inserting a blank line. Direct partners to exchange papers and fill in the missing terms.

Study and Comprehension Encourage students to set their own purposes for reading this section by rewriting section headings as questions. To demonstrate, change the heading “Feathers” to “Why are feathers important to birds?” After reading the section, have students discuss and compare answers to their questions.

Visual Arts CONNECTION

John James Audubon (1785–1851) was an American artist who painted pictures of birds and other kinds of animals. Audubon grew up in France. Even as a child he loved to sketch the birds that he observed while roaming through the forest. Later, as an adult in America, he began to study and draw birds seriously, traveling to various parts of the country in search of different varieties of birds.

Audubon's four-volume work, *The Birds of America*, published between 1827 and 1838, contains 435 pictures showing 489 different bird species. Audubon's paintings, such as that of the little blue heron in Figure 2, are known for their accuracy and remarkable detail as well as their beauty.

In Your Journal

List five observations that you can make about the little blue heron in Audubon's painting, such as the shape of its bill and the pattern of color on its body. Then describe the heron's environment.



Figure 2 John James Audubon painted this little blue heron in 1832. (© Collection of the New York Historical Society)

What Is a Bird?

Modern birds all share certain characteristics. A bird is an endothermic vertebrate that has feathers and a four-chambered heart, and lays eggs. Birds have scales on their feet and legs, evidence of their descent from reptiles. In addition, most birds can fly.

The flight of birds is an amazing feat that people watch with delight and envy. All modern birds—including ostriches, penguins, and other flightless birds—evolved from ancestors that could fly.

The bodies of birds are adapted for flight. For example, the bones of a bird's forelimbs form wings. In addition, many of a bird's bones are nearly hollow, making the bird's body extremely lightweight. Flying birds have large chest muscles that move the wings. Finally, feathers are a major adaptation that help birds fly.

Checkpoint List four ways in which birds are adapted for flight.

Feathers

The rule is this: If it has feathers, it's a bird. Feathers probably evolved from reptiles' scales. Both feathers and reptile scales are made of the same tough material as your fingernails.

Birds have different types of feathers. If you've ever picked up a feather from the ground, chances are good that it was a contour feather. A contour feather is one of the large feathers that give shape to a bird's body. The long contour feathers that extend beyond the body on the wings and tail are called flight feathers. When a bird flies, these feathers help it balance and steer.

Answers to Self-Assessment

Checkpoint

Bird adaptations for flight include forelimb bones that form wings, bones that are nearly hollow, large chest muscles, and feathers.

Program Resources

◆ Teaching Resources 4-1 Lesson Plan, p. 109; 4-1 Section Summary, p. 110

Media and Technology

▶ Audiotapes English-Spanish Summary 4-1

▶ Transparencies “Exploring a Bird,” Transparency 17



INTEGRATING
PHYSICS

In addition to contour feathers, birds have short, fluffy **down feathers** that are specialized to trap heat and keep the bird warm. Down feathers are found right next to a bird's skin, at the base of contour feathers. Down feathers are soft and flexible, unlike contour feathers. Down feathers mingle and overlap, trapping air. Air is a good **insulator**—a material that does not conduct heat well and therefore helps prevent it from escaping. By trapping a blanket of warm air next to the bird's skin, down feathers slow the rate at which the skin loses heat. In effect, down feathers cover a bird in lightweight long underwear.

Checkpoint Why do you think quilts and jackets are often stuffed with down feathers?

Food and Body Temperature

Birds have no teeth. To capture, grip, and handle food, birds primarily use their bills. Each species of bird has a bill shaped to help it feed quickly and efficiently. For example, the pointy, curved bill of a hawk acts like a meathook. A hawk holds its prey with its claws and uses its sharp bill to pull off bits of flesh. In contrast, the straight, sharp bill of a woodpecker is a tool for chipping into wood. When a woodpecker chisels a hole in a tree and finds a tasty insect, the woodpecker spears the insect with its long, barbed tongue.

After a bird eats its food, digestion begins. Each organ in a bird's digestive system is adapted to process food. Many birds have an internal storage tank, or **crop**, that allows them to store food inside the body after swallowing it. Find the crop in *Exploring a Bird*, and notice that it is connected to the stomach.



Figure 3 Birds are the only animals that have feathers. **A.** Down feathers act as insulation to trap warmth next to a bird's body. **B.** Contour feathers, like this one from a Steller's jay, give a bird its shape and help it to fly. **Observing** Where do you see down feathers and contour feathers on the family of Emperor geese above?

The first part of the stomach is long and has thin walls. Here food is bathed in chemicals that begin to break it down. Then the partially digested food moves to a thick-walled, muscular part of the stomach called the **gizzard**, which squeezes and grinds the partially digested food. Remember that birds do not have teeth—their gizzard performs the grinding function of teeth. The gizzard may contain small stones that the bird has swallowed. These stones help with the grinding by rubbing against the food and crushing it.

EXPLORING
a Bird

If you are strolling through a grassy field or meadow in spring, you might hear the beautiful song of a meadowlark. Notice how a meadowlark's body is adapted for flight and for a high level of activity.



Contour Feathers Contour feathers give a bird its shape. Without its contour feathers, a bird cannot fly.

Air Sacs A bird's lungs are connected to a series of air sacs. Air sacs help provide the bird's body with the rich supply of oxygen it needs.

Bill A meadowlark uses its bill to catch insects and pick up seeds.

Heart Like all birds, meadowlarks have a four-chambered heart that keeps oxygen-rich blood separate from oxygen-poor blood. Thus the blood arriving at the tissues carries the most oxygen possible.

Gizzard The muscular gizzard churns food and grinds it to a paste.

Like all animals, birds use the food they eat for energy. Because birds are endotherms, they need a lot of energy to maintain their body temperature. It also takes an enormous amount of energy to power the muscles used in flight. Each day an average bird eats food equal to about a quarter of its body weight. When people say, "You're eating like a bird," they usually mean that you're eating very little. But if you were actually eating as a bird does, you would be eating huge meals. You might eat 100 hamburger patties in one day!

Drawing Conclusions

LOOKING AT AN OWL'S LEFTOVERS



In this lab, you will gather evidence and draw conclusions about an owl's diet.

Problem

What can you learn about owls' diets from studying the pellets that they cough up?

Materials

owl pellet hand lens dissecting needle metric ruler

Procedure



1. An owl pellet is a collection of undigested materials that an owl coughs up after a meal. Write a hypothesis describing what items you expect an owl pellet to contain. List the reasons for your hypothesis.
2. Use a hand lens to observe the outside of an owl pellet. Record your observations.

3. Use one hand to grasp the owl pellet with forceps. Hold a dissecting needle in your other hand, and use it to gently separate the pellet into pieces. **CAUTION: Dissecting needles are sharp. Never cut material toward you; always cut away from your body.**
4. Using the forceps and dissecting needle, carefully separate the bones from the rest of the pellet. Remove any fur that might be attached to bones.

Delivering Oxygen to Cells

Cells must receive plenty of oxygen to release the energy contained in food. Flying requires much energy. Therefore, birds need a highly efficient way to get oxygen into their body and to their cells. Birds have a system of air sacs in their body that connects to the lungs. The air sacs enable birds to extract much more oxygen from each breath of air than other animals can.

The circulatory system of a bird is also efficient at getting oxygen to the cells. Unlike amphibians and most reptiles,

Shrew	House mouse	Meadow vole	Mole	Rat
				
Upper jaw has at least 18 teeth; teeth are brown. Skull length is 23 mm or less.	Upper jaw has 2 biting teeth and extends past lower jaw. Skull length is 22 mm or less.	Upper jaw has 2 biting teeth that are smooth, not grooved. Skull length is more than 23 mm.	Upper jaw has at least 18 teeth. Skull length is 23 mm or more.	Upper jaw has 2 biting teeth. Upper jaw extends past lower jaw. Skull length is 22 mm or more.

5. Group similar bones together in separate piles. Observe the skulls, and draw them. Record the number of skulls, their length, and the number, shape, and color of the teeth.
 6. Use the chart on this page to determine what kinds of skulls you found. If any skulls do not match the chart exactly, record which animal the skulls resemble most.
 7. Try to fit together any of the remaining bones to form complete or partial skeletons. Sketch your results.
 8. Wash your hands thoroughly with soap when you are finished.
- Analyze and Conclude**
1. How many animals' remains were in the pellet? What data led you to that conclusion?
- More to Explore**
- Design a study that might tell you how an owl's diet varies at different times of the year. Give an example of a conclusion you might expect to draw from such a study.
2. Combine your results with those of your classmates. Which three animals were eaten most frequently? How do these results compare to your hypothesis?
 3. Owls cough up about two pellets a day. Based on your class's data, what can you conclude about the number of animals an owl might eat in one month?
 4. **Think About It** In this lab, you were able to examine only the part of the owl's diet that it did not digest. How might this fact affect your confidence in the conclusions you reached?

whose hearts have three chambers, birds have hearts with four chambers—two atria and two ventricles. Trace the path of blood through a bird's two-loop circulatory system in Figure 4. The right side of a bird's heart pumps blood to the lungs, where the blood picks up oxygen. Oxygen-rich blood then returns to the left side of the heart, which pumps it to the rest of the body. The advantage of a four-chambered heart is that there is no mixing of oxygen-rich and oxygen-poor blood. Therefore, blood that arrives in the body's tissues has plenty of oxygen.

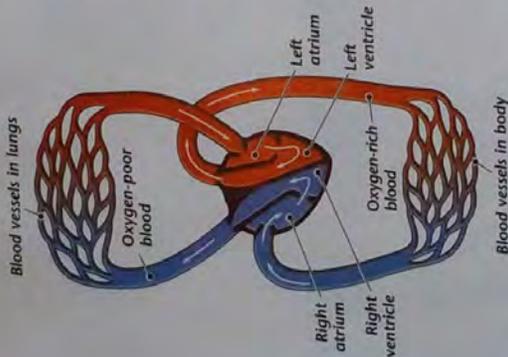


Figure 4 Birds have hearts with four chambers. Notice how the left side of the heart is completely separate from the right side. This separation prevents oxygen-rich blood from mixing with oxygen-poor blood. **Comparing and Contrasting** Contrast a bird's circulatory system with that of an amphibian, as shown on page 96, Figure 13. How do the circulatory systems differ?

Nervous System and Senses

In order to fly, birds must have very quick reactions. To appreciate why, imagine how quickly you would have to react if you were a sparrow trying to land safely on a tree branch. You approach the tree headfirst, diving into a maze of tree branches. As you approach, you only have an instant to find a place where you can land safely and avoid crashing into those branches. If birds had slow reactions, they would not live very long.

A bird can react so quickly because of its well-developed brain and finely-tuned senses of sight and hearing. The brain of a bird controls such complex activities as flying, singing, and finding food. Most birds have keener eyesight than humans. A flying vulture, for example, can spot food on the ground from a height of more than one and a half kilometers. Some birds have excellent hearing, too. How could keen hearing help an owl search for prey in a dark forest?

Reproducing and Caring for Young

Like reptiles, birds have internal fertilization and lay eggs. Bird eggs are similar to reptile eggs, except that their shells are harder. In most bird species, the female lays the eggs in a nest that has been prepared by one or both parents.

Bird eggs will only develop at a temperature close to the body temperature of the parent bird. A parent bird usually incubates the eggs by sitting on them to keep them warm. In some species, incubating the eggs is the job of one parent. Female robins, for example, incubate their delicate blue eggs. In other species, such as pigeons, the parents take turns incubating the eggs.

Birds differ in the length of time that it takes for their chicks to develop until hatching. Sparrow eggs take only about 12 days. Chicken eggs take about 21 days, and albatross eggs take about 80 days. In general, the larger the bird species, the longer its incubation time.



Figure 5 This masked northern weaver bird is literally weaving a nest out of grass. The finished baglike nest will have only a small, weaver bird-sized hole in it. The small entrance helps keep the eggs and young safe from predators.

When it is ready to hatch, a chick pecks its way out of the eggshell. Some newly hatched chicks, such as bluebirds and robins, are featherless, blind, and so weak they can barely lift their heads to beg for food. Other chicks, such as ducks, chickens, and pheasants, are covered with down and can run about soon after they have hatched. Most parent birds feed and protect their young at least until they are able to fly.

Checkpoint How do bird eggs differ from reptile eggs?

Diversity of Birds

With almost 10,000 species, birds are the most diverse land-dwelling vertebrates. In addition to adaptations for flight, birds have adaptations—such as the shapes of their legs, claws, and bills—for living in widely diverse environments. For example, the long legs and toes of wading birds, such as herons and cranes, make wading easy, while the toes of perching birds, such as goldfinches and mockingbirds, can automatically lock onto a branch or other perch. The bills of ducks enable them to filter tiny plants and animals from water. Birds also have adaptations for flying, finding mates, and caring for their young. You can see a variety of bird adaptations in *Exploring Birds* on the next page.

TRY THIS

Eggs-amination

Like reptile eggs, bird eggs protect the developing embryo, provide food for it, and keep it from drying out.

1. Look at the surface of a chicken egg with a hand lens. Then gently crack the egg into a bowl. Do not break the yolk.
2. Note the membrane attached to the inside of the shell. Then look at the blunt end of the egg. What do you see?
3. Fill one part of the eggshell with water. What do you observe?
4. Find the egg yolk. What is its function?
5. Look for a small white spot on the yolk. This marks the spot where the embryo would have developed if the egg had been fertilized.
6. Wash your hands with soap.

Observing Draw a labeled diagram of the egg that names each structure and describes its function.

EXPLORING Birds

Every bird has adaptations that help it live in its environment. Note how the bill and feet of each of these birds are adapted to help the bird survive.



▲ Bee-Eaters
This rainbow bee-eater feeds on bees and other insects, which it catches as it flies. Bee-eaters, which are found in Africa, Europe, Australia, and Asia, help control insect pests such as locusts.



▲ Long-Legged Waders
The roseate spoonbill is found in the southern United States and throughout much of South America. The spoonbill catches small animals by sweeping its long, flattened bill back and forth underwater.

Ostriches

The ostrich, found in Africa, is the largest living bird. It cannot fly, but it can run at speeds greater than 60 kilometers per hour. Its speed helps it escape from predators. ▼



Birds of Prey

The American kestrel, a small falcon, catches its food by hovering in the air and scanning the ground. When it sees prey, such as an insect, the kestrel swoops down and grabs it. Kestrels are found worldwide. ▼



▲ Owls

Owls are predators that hunt mostly at night. Sharp vision and keen hearing help owls find prey in the darkness. Razor-sharp claws and great strength allow larger owls, like this eagle owl, to prey on animals as large as deer.

Why Birds Are Important

A walk through the woods or a park would be dull without birds. You wouldn't hear their musical songs, and you wouldn't see them flitting gracefully from tree to tree. But people benefit from birds in practical ways, too. Birds and their eggs provide food, while feathers are used to stuff pillows and clothing.



INTEGRATING ENVIRONMENTAL SCIENCE Birds also play an important role in the environment. Nectar-eating birds, like hummingbirds, carry pollen from one flower to another, thus enabling some flowers to reproduce. Seed-eating birds, like painted buntings, carry the seeds of plants to new places. This happens when the birds eat the fruits or seeds of a plant, fly to a new location, and then eliminate some of the seeds in digestive wastes. In addition, birds are some of the chief predators of pest animals. Hawks and owls eat many rats and mice, while many perching birds feed on insect pests.



▲ Perching Birds

There are over 5,000 species of perching birds. They represent more than half of all the bird species in the world. The painted bunting, a seed-eating bird, lives in the southern United States and northern Mexico.

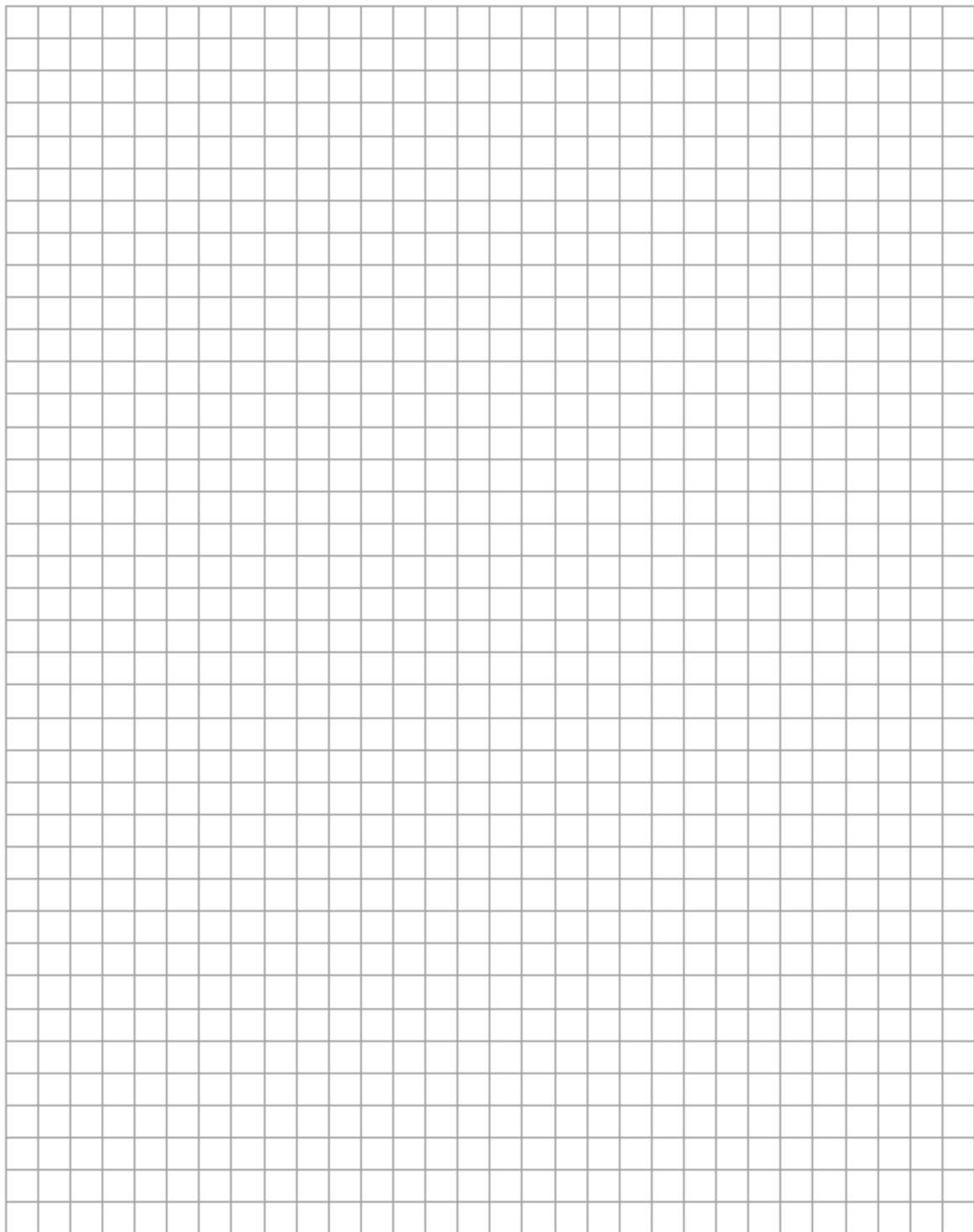
Section 1 Review

1. What characteristics do modern birds share with reptiles? How are birds different from reptiles?
2. Choose two different bird species and describe how they are adapted to obtain food in their environment.
3. Predict how the size of crop harvests might be affected if all birds disappeared from Earth.
4. **Thinking Critically Comparing and Contrasting** Compare contour feathers with down feathers, noting both similarities and differences.

Check Your Progress

By now you should have set up your bird feeder. As you begin making observations, use a field guide to identify the species of birds. Count and record the number of each species that appears. Also observe the birds' behaviors. How long do birds stay at the feeder? How do birds respond to other birds and mammals? Look for signs that some birds are trying to dominate others.

CHAPTER PROJECT 4



DISCOVER

What Are Mammals' Teeth Like?

1.  Wash your hands before you begin. Then, with a small mirror, examine the shapes of your teeth. Observe the incisors (the front teeth); the pointed canine teeth; the premolars that follow the canine teeth; and the molars, which are the large teeth in the rear of your jaws.
2. Compare and contrast the structures of the different kinds of teeth.



3. Use your tongue to feel the cutting surfaces of the different kinds of teeth in your mouth.
4. Bite off a piece of cracker and chew it. Observe the teeth that you use to bite and chew. Wash your hands when you are finished.

Think It Over

Inferring What is the advantage of having teeth with different shapes?

High in the Himalaya Mountains of Tibet, several yaks inch their way, single file, along a narrow cliff path. The cliff plunges thousands of meters to the valley below, so one false step can mean disaster. But the sure-footed yaks, carrying heavy loads of grain, slowly but steadily cross the cliff and make their way through the mountains.

Yaks, which are related to cows, have large lungs and a complex system of chest muscles that enables them to breathe deeply and rapidly. These structures allow yaks to obtain the oxygen necessary to survive at high altitudes. People who live in the mountains of central Asia have depended on yaks for thousands of years. Not only do yaks carry materials for trade, they also pull plows and provide milk. Mountain villagers weave blankets from yak hair and make shoes and ropes from yak hides.

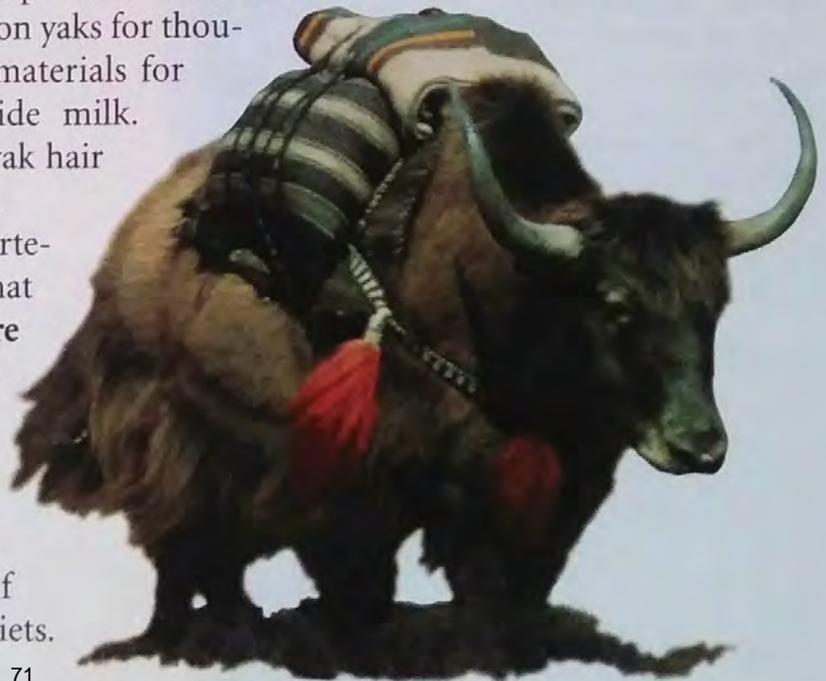
The yak is a member of the group of vertebrates called **mammals**, a diverse group that share many characteristics. **All mammals are endothermic vertebrates with a four-chambered heart, and skin covered with fur or hair. The young of most mammals are born alive, and every young mammal is fed with milk produced in its mother's body.** In addition, mammals have teeth of different shapes that are adapted to their diets.

GUIDE FOR READING

- ◆ What characteristics do all mammals share?

Reading Tip As you read this section, write one or two sentences summarizing the information under each heading.

▼ Himalayan yak



Today there are about 6,000 different species of mammals. There are mammals that you may never have seen, such as kangaroos and wildebeests, as well as familiar mammals such as dogs, cats, bats, and mice.

Mammals First Appear

Two hundred and seventy million years ago, before dinosaurs appeared, and long before birds appeared, there was a group of animals that had a blend of reptilian and mammalian characteristics. They were more like reptiles than mammals, but they resembled mammals in some ways, such as in the shapes of their teeth. These mammal-like reptiles, which became extinct about 160 million years ago, were the ancestors of the true mammals.

The earliest mammals were small, mouse-sized animals that lived in habitats dominated by dinosaurs. These early mammals may have been nocturnal, or active mainly at night, presumably the time when the dinosaurs were inactive or asleep. It was only after the dinosaurs disappeared, about 65 million years ago, that large mammals first evolved.

Most mammals, such as kangaroos and giraffes, became specialized to live on land. Other mammals, such as dolphins, became adapted to life in Earth's waters, while still others, the bats, became adapted to flight.

Fur and Hair

All mammals have fur or hair at some point in their lives. Like a bird's down feathers, thick fur provides lightweight insulation

that prevents body heat from escaping. Fur and hair help mammals maintain a stable body temperature in cold weather. Each strand of hair or fur is composed of dead cells strengthened with the same tough material that strengthens feathers. Hair grows from living cells located below the surface of the skin.

The amount of hair that covers the skin of a mammal varies a great deal from group to group. Some mammals, such as whales and manatees, have only a few bristles. Others, including dogs and weasels, have thick, short fur. The fur of sea otters is thickest of all—on some areas of its body, a sea otter can have 150,000 hairs per square centimeter! Human bodies are covered with hair, but in places the hairs are spaced widely apart.

In general, animals that live in cold regions have thicker coats of fur than animals in warmer environments, as you can see by contrasting the hippopotamus and wolf in Figure 8. Mammals such as wolves and rabbits that live in places where cold and warm seasons alternate usually grow thicker coats in winter than in summer.

Fur is not the only adaptation that allows mammals to live in cold climates. Mammals also have a layer of fat beneath their skins. Fat, like fur and feathers, is an insulating material that keeps heat in the body. Recall that mammals are endotherms, which means that their bodies produce enough heat to maintain a stable body temperature regardless of the temperature of their environment.

Checkpoint What is the major function of fur or hair?

TRY THIS

Insulated Mammals

In this activity, **ACTIVITY** you will discover whether or not fat is an effective insulator.

1. Put on a pair of rubber gloves.
2. Spread a thick coating of solid white shortening on the outside of one of the gloves. Leave the other glove uncoated.
3. Put both hands in a bucket or sink filled with cold water.

Inferring Which hand got cold faster? Explain how this activity relates to mammalian adaptations.

Figure 8 The amount of fur or hair covering a mammal's body varies greatly. **A**, Hippopotamuses live in hot regions such as Africa year-round and have little hair. **B**, Gray wolves live in the northern half of North America and have thick fur coats during the cold winter months. During the summer, however, their coats are thinner.

Comparing and Contrasting Compare the function of a mammal's fur or hair to that of down feathers.



Teeth

Endotherms need a lot of energy to maintain their body temperature, and that energy comes from food. Mammals' teeth are adapted to chew their food, breaking it into small bits that make digestion easier. Unlike reptiles and fishes, whose teeth usually all have the same shape, most mammals have teeth with four different shapes. **Incisors** are flat-edged teeth used to bite off and cut parts of food. **Canines** are sharply pointed teeth that stab food and tear into it. **Premolars** and **molars** grind and shred food into tiny bits.

The size, shape, and hardness of a mammal's teeth reflect its diet. For example, the canines of carnivores are especially large and sharp. Large carnivores, such as lions and tigers, use their canines as meat hooks that securely hold the prey while the carnivore kills it. The molars of herbivores, such as deer and woodchucks, have upper surfaces that are broad and flat—ideal for grinding and mashing plants.

Getting Oxygen to Cells

To release energy, food molecules must combine with oxygen inside cells. Therefore, a mammal needs an efficient way to get oxygen into the body and to the cells that need it.

Like reptiles and birds, all mammals breathe with lungs—even mammals such as whales that live in the ocean. Mammals breathe in and out because of the combined action of rib muscles and a large muscle called the **diaphragm** located at the bottom of the chest. The lungs have a huge, moist surface area where oxygen can dissolve and then move into the bloodstream.

Like birds, mammals have a four-chambered heart and a two-loop circulation. One loop pumps oxygen-poor blood from the heart to the lungs and then back to the heart. The second loop pumps oxygen-rich blood from the heart to the tissues of the mammal's body, and then back to the heart.

Checkpoint How do mammals take air into their bodies?

Nervous System and Senses

The nervous system and senses of an animal receive information about its environment and coordinate the animal's movements. The brains of mammals enable them to learn, remember, and behave in complex ways. Squirrels, for example, feed on

nuts. In order to do this, they must crack the nutshell to get to the meat inside. Squirrels learn to use different methods to crack different kinds of nuts, depending on where the weak points in each kind of shell are located.

The senses of mammals are highly developed and adapted for the ways that individual species live. Tarsiers, which are active at night, have huge eyes that enable them to see in the dark. Humans, monkeys, gorillas, and chimpanzees are able to see objects in color. This ability is extremely useful because these mammals are most active during the day when colors are visible.

Most mammals hear well. Bats even use their sense of hearing to navigate. Bats make high-pitched squeaks that bounce off objects. The echoes give bats information about the shapes of objects around them and about how far away the objects are. Bats use their hearing to fly at night and to capture flying insects.

Most mammals have highly developed senses of smell. Many mammals, including dogs and cats, use smell to track their prey. By detecting the scent of an approaching predator, antelopes use their sense of smell to protect themselves.

Movement

One function of a mammal's nervous system is to direct and coordinate complex movement. No other group of vertebrates can move in as many different ways as mammals can. Like most mammals, camels and leopards have four limbs and can walk and run. Other four-limbed mammals have specialized ways of moving. For example, kangaroos hop, gibbons swing by their arms from branch to branch, and flying squirrels glide down from high perches. Moles use their powerful front limbs to burrow through the soil. Bats, in contrast, are adapted to fly through the air—their front limbs are wings. Whales, dolphins, and other sea mammals have no hind limbs—their front limbs are flippers adapted for swimming in water.

Sharpen your Skills

Classifying

Unlike humans, birds and bats both fly. Does this mean that bats are more closely related to birds than to humans? Use the diagrams below to find out. The diagrams show the front-limb bones of a bird, a bat, and a human. Examine them carefully, noting similarities and differences. Then decide which two animals are more closely related. Give evidence to support your classification.

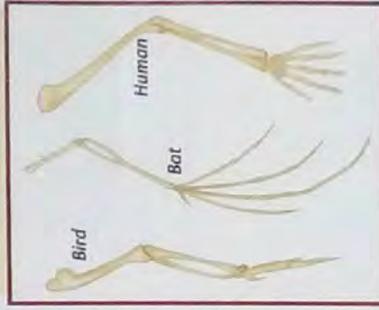


Figure 10 Mammals, like these springboks, have large brains. A springbok's brain processes complex information about its environment and then quickly decides on an appropriate action.



Figure 9 Lions have sharp, pointed teeth. Note the especially long canine teeth. **Inlarring** What kind of diet do lions eat?



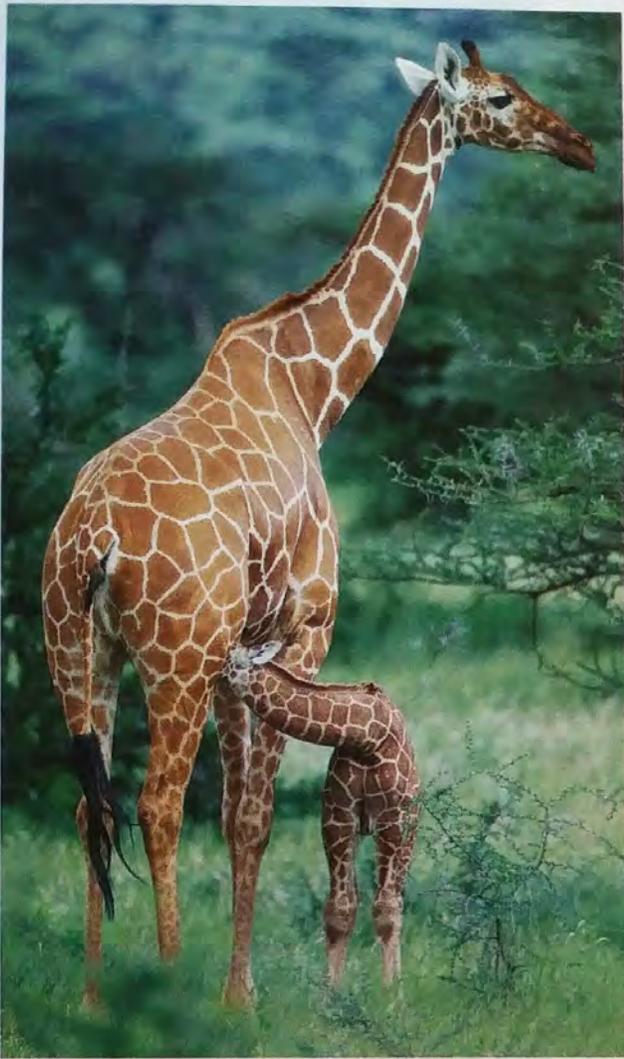


Figure 11 This young giraffe is feeding on milk produced by its mother, as do all young mammals.

Reproducing and Caring for Young

Like reptiles and birds, mammals have internal fertilization. Although a few kinds of mammals lay shelled eggs, the young of most mammals develop within their mothers' bodies and are never enclosed in an eggshell. All mammals, even those that lay eggs, feed their young with milk produced in **mammary glands**. In fact, the word *mammal* comes from the term *mammary*.

Young mammals are usually quite helpless for a long time after being born. Many are born without a coat of insulating fur. Their eyes are often sealed and may not open for weeks. For example, black bear cubs are surprisingly tiny when they are born. The blind, nearly hairless cubs have a mass of only 240 to 330 grams—about as small as a grapefruit. The mass of an adult black bear, in contrast, ranges from about 120 to 150 kilograms—about 500 times as large as a newborn cub!

Young mammals usually stay with their mother or both parents for an extended time. After black bear cubs learn to walk, they follow their mother about for the next year, learning how to be a bear. They learn things that are important to their survival,

such as which mushrooms and berries are good to eat and how to rip apart a rotten log and find good-tasting grubs within it. During the winter, when black bears go through a period of inactivity, the young bears stay with their mother. The following spring, she will usually force them to live independently.



Section 3 Review

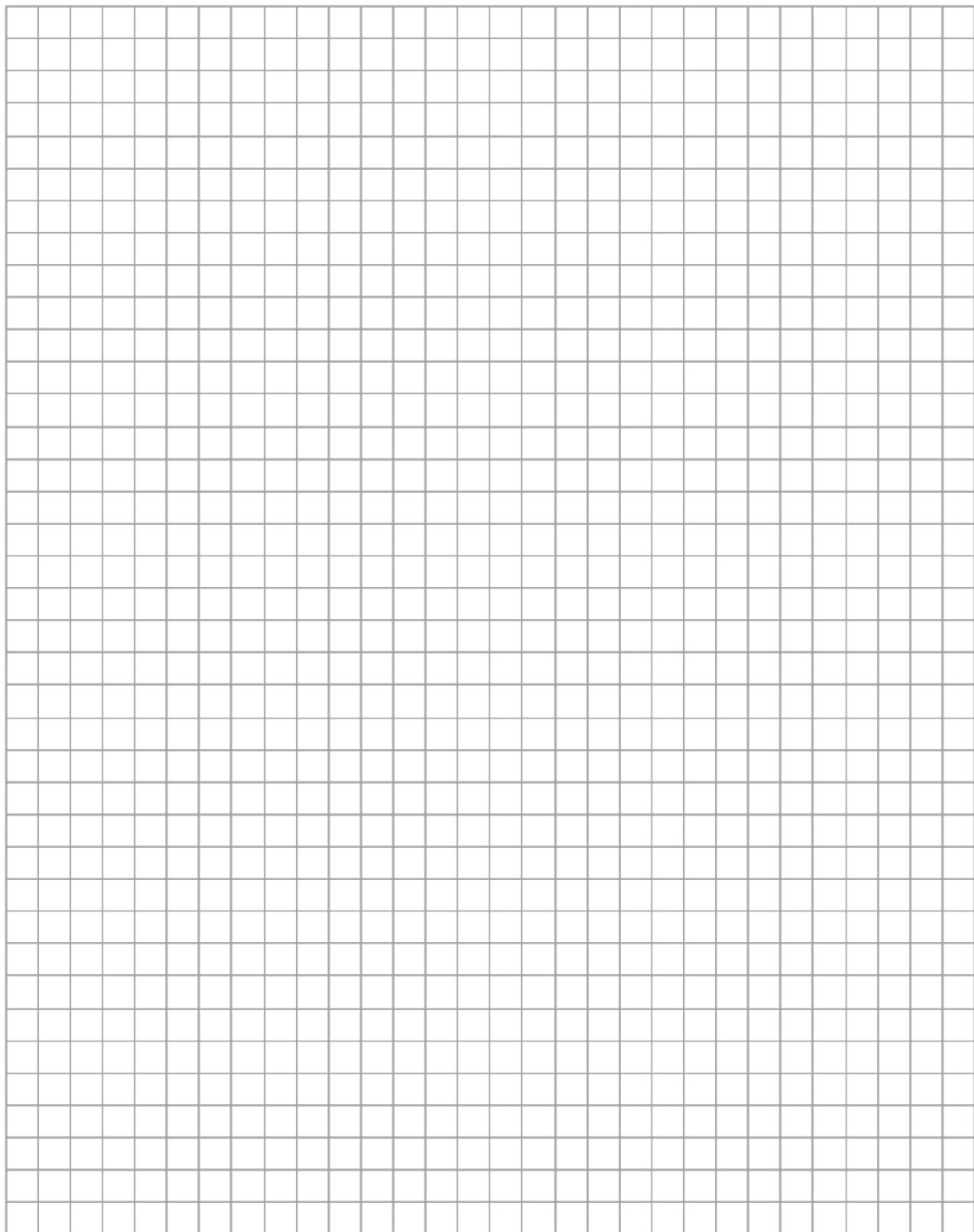
1. List five characteristics that all mammals share.
2. Name three ways in which mammals are similar to birds. Then list three ways in which they are different.
3. Relate the shape of any mammal's teeth to its diet.
4. Explain how a keen sense of hearing is an advantage to a bat.

5. Thinking Critically Making Generalizations

What characteristics enable mammals to live in colder environments than reptiles can?

Science at Home

With a family member, examine the nutrition facts listed on a container of whole milk. What types of nutrients does whole milk contain? Discuss why milk is an ideal source of food for young, growing mammals.



1L History

Scholar's name _____

Name: _____

Hour: _____

1L History Reading 71 - Chinese Society and Confucius

Terms

Mandate of Heaven: _____

Dynastic cycle: _____

Traditionalist: _____

People

Confucius: _____

Reading Questions

1. How was the Chinese family organized in terms of power? Use words or make a diagram to represent who had to obey whom and who was at the top.

2. Why do you think women had such a low position in Chinese families? _____

3. What did the Chinese believe about ancestors' spirits? _____

4. What was the Chinese explanation for rebellion and civil war? _____

5. How did Confucius want to reform society? _____

6. Pick one of the Sayings of Confucius and on a separate piece of paper write a paragraph that saying.

Explain why you picked it, whether you agree with it and/or give an example of when it is true/false.

Sayings of Confucius

Be not ashamed of mistakes and thus make them crimes.

Before you embark on a journey of revenge, dig two graves.

Everything has its beauty but not everyone sees it.

Forget injuries, never forget kindnesses.

He who will not economize will have to agonize.

I hear and I forget. I see and I remember. I do and I understand.

Ignorance is the night of the mind, but a night without moon and star.

It does not matter how slowly you go so long as you do not stop.

Men's natures are alike, it is their habits that carry them far apart.

Our greatest glory is not in never falling, but in getting up every time we do.

Respect yourself and others will respect you.

Study the past if you would define the future.

The superior man, when resting in safety, does not forget that danger may come. When in a state of security he does not forget the possibility of ruin. When all is orderly, he does not forget that disorder may come. Thus his person is not endangered, and his States and all their clans are preserved.

To be able under all circumstances to practice five things constitutes perfect virtue; these five things are gravity, generosity of soul, sincerity, earnestness and kindness.

To see what is right and not to do it is want of courage.

To see what is right, and not to do it, is want of courage or of principle.

What the superior man seeks is in himself; what the small man seeks is in others.

When anger rises, think of the consequences.

When we see men of a contrary character, we should turn inwards and examine ourselves.

Wheresoever you go, go with all your heart.

They must often change who would be constant in happiness or wisdom.

By nature, men are nearly alike; by practice, they get to be wide apart.

Fine words and an insinuating appearance are seldom associated with true virtue.

Have no friends not equal to yourself.

He who exercises government by means of his virtue may be compared to the north polar star, which keeps its place and all the stars turn towards it.

He who speaks without modesty will find it difficult to make his words good.

He with whom neither slander that gradually soaks into the mind, nor statements that startle like a wound in the flesh, are successful may be called intelligent indeed.

Hold faithfulness and sincerity as first principles.

I am not one who was born in the possession of knowledge; I am one who is fond of antiquity, and earnest in seeking it there.

I have not seen a person who loved virtue, or one who hated what was not virtuous. He who loved virtue would esteem nothing above it.

Source -

<http://www.quotationspage.com/quotes/Confucius/>

Strong bonds held Chinese society together.

The culture that grew up in China had strong bonds that made for unity. From earliest times, the group seems to have been more important than the individual. Above all, people's lives were governed by their duties to two important authorities—their family and their king or emperor.

The family In China, the family was central to society. Everyone's role in the family was fixed from birth to death. The elderly had privileges and power; the young had practically none. The oldest man was in charge of all the family's goods and possessions. He also had final approval of the marriages that the women of the family arranged for his children and grandchildren. The oldest woman—usually the grandmother—had authority over all the younger women. Children were expected to obey their parents and grandparents without question. The most important virtue in Chinese society was respect for one's parents.

Women in Chinese society were treated as inferiors. They were expected to obey their fathers, their husbands, and later, their own sons. When a girl was between 13 and 16 years old, her marriage was arranged, and she moved permanently into the house of her husband. A young bride often entered her husband's household with fear and trembling, wondering how her mother-in-law would treat her. Only by bearing sons for her husband's family could a woman hope to improve her status. Eventually, of course, she might be able to rule over her own daughters-in-law.

The importance of family ties is shown by the fact that the Chinese were the first people known to use two names: a personal name and a family name (or surname). Among the Chinese, the first name is the family name. Thus, in a name such as Liu Pang, Liu is the family name and Pang is the personal name.

In China, the family was closely linked to religion. The spirits of family ancestors were thought to have the power to bring good fortune or disaster to living members of the family. The Chinese did not regard these spirits as mighty gods. Rather, the spirits were more like troublesome or helpful neighbors who demanded attention and respect. Every family paid respect

to its ancestors and made sacrifices in their honor. Only sons could carry on the traditional religious duties, so sons were valued much more highly than daughters. (Also, only the ancestors in the father's family were so honored; the mother's family did not count.)

View of government In ancient China, a person's chief loyalty throughout life was to the family. Beyond this, people owed obedience and respect to the ruler of the Middle Kingdom, just as they did to their own grandfather. The ruler was like a super-grandfather who had supreme responsibility for the welfare of the Chinese people.

The Chinese believed that royal authority came from heaven. A just ruler had divine approval, known as the Mandate of Heaven. A wicked or foolish king could lose the Mandate of Heaven. The ancestral spirits might show their displeasure by causing a flood, riot, or other calamity. In that case, the Mandate of Heaven might pass to another noble family. This was the Chinese explanation for rebellion and civil war. The fall of one dynasty and the rise of another was never achieved without bloodshed.

Historians describe the rise and fall of dynasties as a cycle. Each dynasty rules vigorously for a while, then weakens and is replaced by a new ruling family. This pattern of strength, decline, and replacement is called the dynastic cycle.

Chinese history is marked by a succession of dynasties until dynastic rule was finally overthrown in the early 1900's. The first historic family to rule the Middle Kingdom (from about 1500 to 1027 B.C.) were the Shang (shahng) kings. The last Shang king was overthrown by the first Chou (jo) king. The Chou dynasty, the longest in Chinese history, lasted for eight centuries (from 1027 to 221 B.C.). It was followed by the shortest and cruelest dynasty, the Ch'in, which in turn was followed by the mighty Han dynasty. These four dynasties—Shang, Chou, Ch'in, and Han—span the first 1,900 years of China's history.

Confucius urged social harmony.

Foremost among these scholars was K'ung Chiu, or K'ung Fu-tzu (Master Kung). In English, he is better known as Confucius. Born in 551 B.C., Confucius was about 12 years younger than the Indian sage Gautama (Buddha).

Confucius led a scholarly life, devoting himself to the study of his three favorite subjects—history, music, and morals. To make a modest living, he offered lessons in wisdom to children of noble families. Charmed by his kindly humor, students apparently adored him. As he trudged along country roads, his students followed. The only record of his teachings are the writings of his students.

Confucius wanted to reform society by showing princes and dukes how to govern wisely. To govern well, he said, a prince must live virtuously. The people would then imitate their ruler's example, and peace and order would follow. "If a ruler himself is upright," Confucius said, "all will go well without orders. But if he himself is not upright, even though he gives orders they will not be obeyed."

Confucius was a traditionalist—a lover of old ideas, old values, and old customs. He urged people to uphold the great traditions and customs of the past, so that society would again be well ordered.

Although he valued religious traditions, he was more interested in human society than in the gods. Good manners and good morals were judged practically one and the same. Confucius taught, for example, this variation on the golden rule: "Do not do to others what you would not want



There is no portrait of Confucius that was made during his own time. Like most later portraits, this one suggests his wisdom and kindness.

done to yourself." Most important, said Confucius, remember to respect your elders and your social superiors.

Confucius never won the high political position that he sought. Although he may have held some minor posts, no king ever accepted him as chief adviser. Confucius died in obscurity around 479 B.C. It was only much later, 350 years after his death, that millions of Chinese began to memorize his teachings.

Name: _____

1L History Reading 72 - Qin (Ch'in) Dynasty

Vocabulary

Weights and measures: official government standards so all merchants are using equal weights and measurements so buyers can compare products and prices

Currency: money - coins and paper money

Deposed: removed from office or a king removed from the throne (his kingdom)

Terms

Great Wall: _____

Mandate of Heaven: _____

People

Qin Shi Huangdi: _____

Reading Questions

1. What were the major accomplishments of Qin Shi Huangdi? Include at least five. _____

2. What did he do to modernize China? _____

3. What did Shi Huangdi's tomb complex contain? _____

4. What does "huangdi" mean and what did that show about Shi Huangdi's attitude? _____

5. What were Shi Huangdi's two main goals and how did he achieve them? _____

6. What kinds of books were burned and why did Shi Huangdi order the book burnings? _____

7. Why did the peasants who worked to build the Great Wall hate Shi Huangdi? _____

KEY DATES

350s	Qin becomes a militaristic state
316	Qin becomes the leading state in China
256	Qin annexes the state of Zhou (Luoyang)
230	King Qin Zheng begins to unify China by force
221	Qin dynasty unites the country for the first time in one empire
214	To protect China from Hun raids, construction of the Great Wall begins
212	Shi Huangdi burns all historical documents, books are banned, and Chinese script standardized
209-202	Civil war between competing warlords
202	Founding of the Han dynasty by Liu Bang



This bronze statue is a fantastic fire-breathing, winged animal from Chinese mythology. The Chinese also made creatures like this in jade.

THE QIN LEGACY

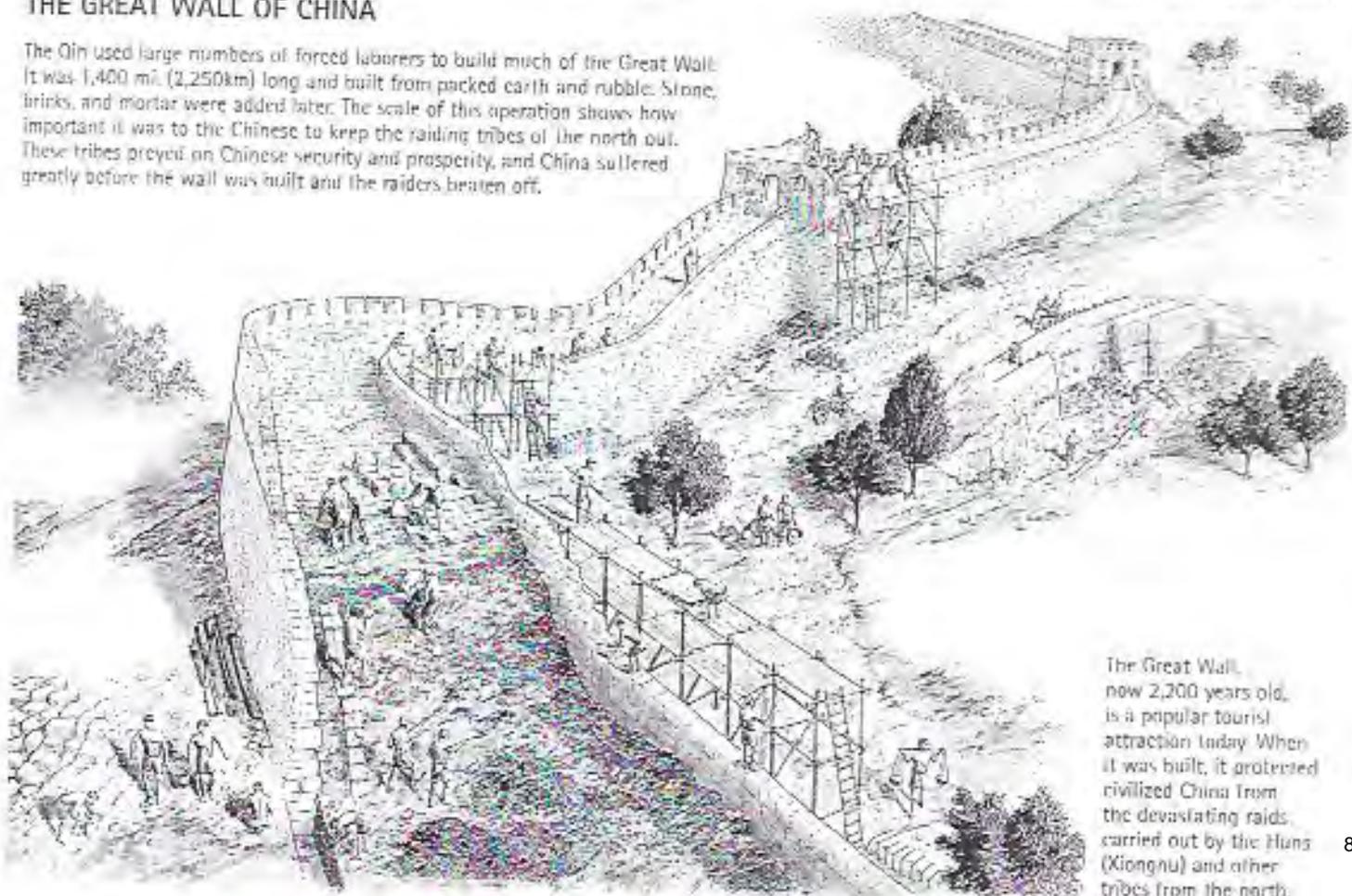
Shi Huangdi died in 210 B.C., and four years later the Qin dynasty was overthrown because the changes and laws they made were too harsh. A civil war broke out. The idea of a united empire, however, had become fixed in the minds of the people. An ordinary man, named Liu Bang, who had become a Qin official, founded a new dynasty and, as a result, gained popular support. The Han dynasty was to rule for 400 years, on the basis that Shi Huangdi had established.



Shi Huangdi's tomb housed his body and possessions for use in the afterlife. It also contained 7,000 larger-than-life terracotta soldiers. Each face was realistic and may have represented the actual faces of a specific soldier.

THE GREAT WALL OF CHINA

The Qin used large numbers of forced laborers to build much of the Great Wall. It was 1,400 mi. (2,250km) long and built from packed earth and rubble. Stone, bricks, and mortar were added later. The scale of this operation shows how important it was to the Chinese to keep the raiding tribes of the north out. These tribes preyed on Chinese security and prosperity, and China suffered greatly before the wall was built and the raiders beaten off.



The Great Wall, now 2,200 years old, is a popular tourist attraction today. When it was built, it protected civilized China from the devastating raids carried out by the Huns (Xiongnu) and other tribes from the north.

CHINA: THE QIN DYNASTY 221–206 B.C.

The warlike Qin tribes of western China conquered their neighbors from 350 B.C. onward. By 221 B.C. they had built the empire from which China takes its name.



King Zheng of Qin (pronounced "Chin") united most of China in just ten years, ending the Warring States period. He changed his name to Shi Huangdi (meaning "First Emperor") and founded the first imperial dynasty of China.

IMPERIAL CHINA

Shi Huangdi reorganized the

The ancient Chinese were great inventors. They invented the wheelbarrow, which they used to carry both goods and people in the 2nd century B.C.—Europe only adopted it 1,000 years later.

government, bringing everything under central control. He standardized all weights and measures, Chinese writing, and even the width of wagon wheels; he made laws and institutions in the Qin tradition, and introduced a single currency. He was a ruthless modernizer, abolishing the powers of the feudal aristocracy and sending out administrators to run the regions. He built roads and canals, and improved farming with irrigation and drainage schemes. To protect China from barbarians, construction began on the Great Wall, much of which still exists today. He established imperial traditions that remained consistent through different dynastic periods over 2,000 years. In 221 B.C., Shi Huangdi destroyed many traditional literary works, including those of Confucius, and even executed 400 scholars, to ensure modernization.



Sages and philosophers traditionally influenced Chinese society and government and also played a religious role. As preservers of knowledge, they came under attack during the modernizing Qin period.



For the first time, China was united. The Qin built the Great Wall to protect it from tribes from the north. The Qin capital was Xianyang on the upper Yellow River, the area where the Qin originated.

THE MANDATE OF HEAVEN

Shi Huangdi was a warrior who used cavalry rather than chariots. He was used to being obeyed, and some of his actions made him very unpopular. Yet he commanded respect and achieved results, and he used his power to make changes quickly and to unite China. He also had principles. He believed that the emperor had been given the "mandate of heaven" by the gods, and that he must earn the support of the gods by governing well. This principle meant that the emperor could also be deposed if he misgoverned the country.

Life was bustling in a typical Qin town of a few thousand people, with its market, buildings, and defenses.



Ch'in and Han emperors strengthened China.

The new dynasty that came to power was the Ch'in. It took its name from the small state of Ch'in, which was the family's home, in western China. In 256 B.C., the Ch'in armies destroyed the Chou forces. In 246 B.C., a new Ch'in king came to the throne. Though he was only a boy of 13 at the time, as he grew older he became as ruthless a ruler as any Legalist could wish.

The Ch'in dynasty built an empire.

This proud ruler was Ch'in Shih Huang-ti (chín shih hwáng-tee), whose name meant "First Emperor." *Huang-ti* was a title that this ruler took for himself in 221 B.C. In earlier times, it had been used only for gods. Because the title means someone even greater than a king, it is translated *emperor*. From this time on, the ruler of China was known as an emperor.

Shih Huang-ti stopped the petty wars that had sapped China's strength. He conquered the barbarians to the south of his kingdom and protected the northern border by building the Great Wall. Most important, he gave China a form of government that lasted more than 2,000 years. His dynasty was even responsible for giving China its name. Nevertheless, Ch'in Shih Huang-ti was hated by one and all. A later Chinese scholar described Shih Huang-ti as having a "high pointed nose, slit eyes, pigeon breast, wolf voice, tiger heart." Furthermore, he was "stingy, cringing, graceless." Nonetheless, Shih Huang-ti was an effective ruler.

Stamping out opposition The First Emperor concentrated all his energies on two tasks: destroying outside rival armies and destroying resistance to his rule from within. His goals were extreme and so were his methods.

His armies struck out in every direction, attacking barbarians north of the Yellow River and south as far as what is now Vietnam. Because of his conquests, the China of the Ch'in dynasty was roughly double the size of China under the Chou dynasty.

At the same time, the Ch'in emperor crushed political opposition within China. To destroy the power of rival warlords, he commanded all the noble families to live at the capital city under his watchful eye. This edict, according to tradition, uprooted 120,000 noble families. To put a stop to wars between states, the First Emperor wiped out the ancient borders of Lu, Ch'u, Ch'in, and other states, and drew new boundaries. China was carved into 36 administrative districts, each of which was controlled by officials from Ch'in.

To prevent criticism of his rule, the emperor ordered the burning of all books that were judged to be either useless or harmful. This included all poetry of the Chou dynasty and all political writings—every book valued by Confucian scholars. Only practical books about medicine and farming were to be spared.

To unite his empire, Shih Huang-ti ordered a gigantic network of highways to be built by peasant work gangs. He also set uniform standards for Chinese law, money, and weights and measures—even the length of cart axles. This last standard ensured that all vehicles fit the ruts of all Chinese main roads.

The Great Wall If scholars most hated Shih Huang-ti for his book burning, peasants most hated him for his Great Wall. This colossal wall, which still stands, was not entirely the idea of the First Emperor. Smaller walls had been built in Chou times to discourage attacks by northern barbarians. Mounted on tough war-horses, the barbarians could not ride through the walls, but of course they could and did ride around them. Shih Huang-ti decided to close the gaps and stretch a new wall so far to the west that an enemy would have to gallop halfway to Tibet to get around it.

Pushing wheelbarrows (a Chinese invention), about a million peasants collected, hauled, and dumped millions of tons of stone, dirt, and rubble. Slabs of cut stone on the outsides of the wall enclosed a heap of pebbles and rubble on the inside. Each section of wall rose to a height of 20 to 25 feet. From the Yellow Sea in the east to the edge of the Gobi Desert in the west, the Great Wall twisted like a dragon's tail for a total distance of roughly 1,400 miles.

The wall builders worked neither for wages nor for love of empire. They worked because it was the law, and to break Ch'in law was death. Many died anyway from the crushing labor and the freezing winter winds. According to legend, thousands of human bones lie within the wall.

The fall of the Ch'in The Ch'in dynasty was short-lived. Shih Huang-ti's son, though just as cruel as his father, was less able. After three years under the rule of this second Ch'in emperor, the peasants rebelled. One of their leaders, a peasant from the land of Han, marched triumphantly into the capital city. Thus, in 202 B.C., the Ch'in dynasty ended and the Han dynasty began.

Footnote to History

Before his death in 210 B.C., Shih Huang-ti ordered the building of a great tomb for himself. The whole site was as big as a city. Within the burial mound were more than 7,500 life-size clay statues of warriors, charioteers, archers, and spearmen. This royal bodyguard came to light in 1974, in one of the greatest

Scholar Name: _____

SOL Music Lesson

Music Visions

Week of June 1, 2020

Can a painting or a garden be “musical”?

This week’s music lesson shows how music can be interpreted through other art forms.

Please visit the music page at parнасsusteаchers.com to see full-color images and additional resources for this lesson.

Important: Please put your full name on your completed answer sheet before returning. The remaining music lesson pages are for you to keep.

Your full name: _____ Level (circle): 1L 2L 3L 4L

Please complete the “Music Visions” reading, then answer these questions.

What similarities do you notice between Klee’s painting and traditional music notation?

What piece of music is the Music Garden modeled on? _____

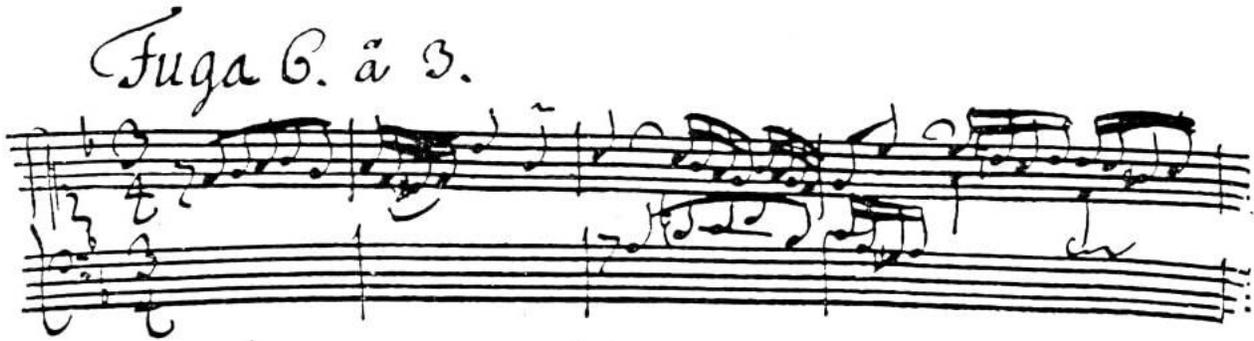
How does music animation show us what is happening in the music as we listen to it?

Which of the three music animation videos (with organ, guitar, or piano) did you like the most, and why?

How would you interpret music visually? Describe what your visual interpretation would look like.

Music Visions

There are many ways that we can “see” music. When we look at a musical score, we see the notes that are played when a piece of music is performed. Each composer’s unique personality comes through not only in how their music sounds, but even in how their music looks. Here is a piece by the famous composer of the Baroque era, Johann Sebastian Bach, in Bach’s own handwritten musical notation:



Opening of a three-voice fugue (“Fuga a 3”) in G minor by J. S. Bach, as written out by the composer

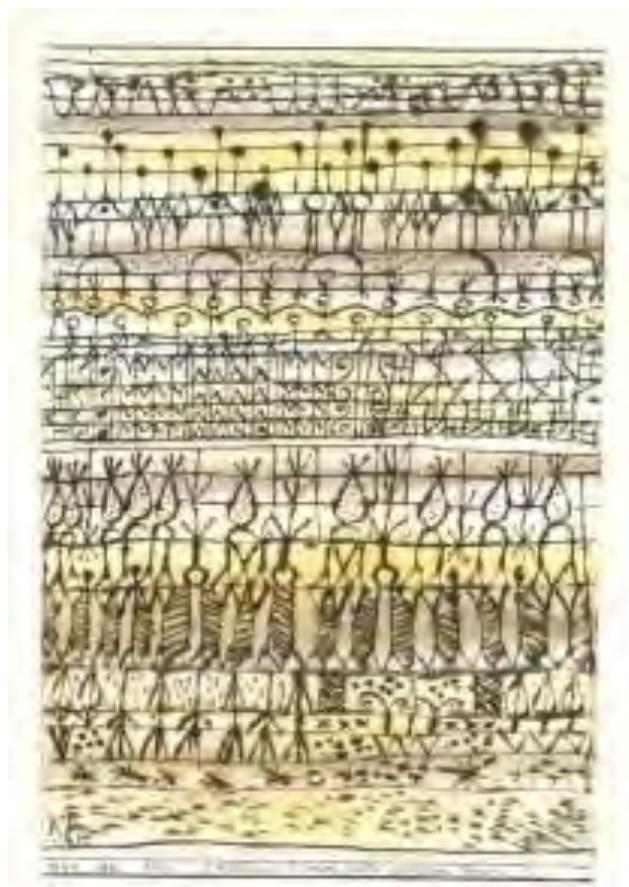
But seeing is more than just looking. To really “see” something, we have to go beyond what is being shown – we have to interpret it. Music is most often interpreted by performing it, that is, through sound. However, some of the most intriguing interpretations of music have resulted from “seeing” music through the creative lens of another art form, often by giving music a different, visual form.

Painting in the Style of Bach

The important Swiss artist Paul Klee (1879-1940) saw the music of Bach through the prism of painting. For Klee, painting was like “improvising freely on my keyboard of colors.” His painting *In the Style of Bach* uses plants, symbols, and signs like elements in a musical score, and its visual rhythm is similar to the structures of Bach’s multi-voiced fugues. Klee’s *Cooling in the Garden of the Torrid Zone* divides elements into horizontal lines and creates repetitive rhythmic structures. You can see black-and-white images of these painting on the next page; go to the Parnassus teachers music page for color images.



In the Style of Bach by Paul Klee



Cooling in the Garden of the Torrid Zone by Paul Klee

Listening: Bach E minor fugue, BWV 900 (a favorite of Klee's) <https://www.youtube.com/watch?v=trSjLjE5ptc>

Read more on painters and music: <https://interlude.hk/paul-kee-painting-music/>

<https://www.artsy.net/article/artsy-editorial-music-motivated-artists-matisse-kandinsky-reinvent-painting>

Bach-Inspired Music Garden

In a series of six films called *Inspired by Bach*, the famous cello player Yo-Yo Ma teams up with painters, dancers, architects, and film makers to interpret Bach's cello suites in new and unexpected ways. For Suite No. 1 in G Major, he partners with designer Julie Messervy to create a public city garden. The different dances of the cello suite take them (and us) on a "curvilinear" journey, one that doesn't always follow a straight, predictable path. There were unforeseen challenges in "translating" music into a physical space, first intended for the city of Boston but finally completed in Toronto, where it welcomes thousands of visitors each year.



Plan of the Toronto Music Garden. The upper half of photo shows the actual garden, and the lower half shows how the garden's sections correspond to the movements of the Bach Cello Suite No. 1.

Listening: Bach Cello Suite No. 1 with Yo-Yo Ma <https://www.youtube.com/watch?v=1prweT95Mo0>

Watch: "Minuet" from *The Music Garden* (from 47'20 to 51'20) https://www.youtube.com/watch?v=GyM9F_KaRWk

Read more: <https://www.harbourfrontcentre.com/venues/torontomusicgarden/>

Bach in the Music Animation Machine

The Music Animation Machine shows the music's inner structure in real time with bars of color representing the notes. As you listen, these bars scroll across the screen. Their position tells you their pitch (how high or low on the screen) and their timing in relation to each other (bars of different lengths – how far left or right from each other). Different colors are given to different instruments or voices, melodies, and harmonies. Each note lights up at the exact moment it sounds.

There are many variations in the ways that music animation visualizes the music being performed. Some are very similar to the “sound picture” of a spectrogram, where the sound “looks” different depending on what instrument or other source is making it. Watch the three music animation videos (links below) to get an idea just how different the animation can be!



Bach's *In Dulci Jubilo*, from *Das Orgelbüchlein*, first ten measures

Watch/listen to Bach's "Little Fugue" for organ with music animation

<https://www.youtube.com/watch?v=ddbxFi3-UO4>

More music animation <https://www.youtube.com/watch?v=MvF8XWr17nw> (guitar music)

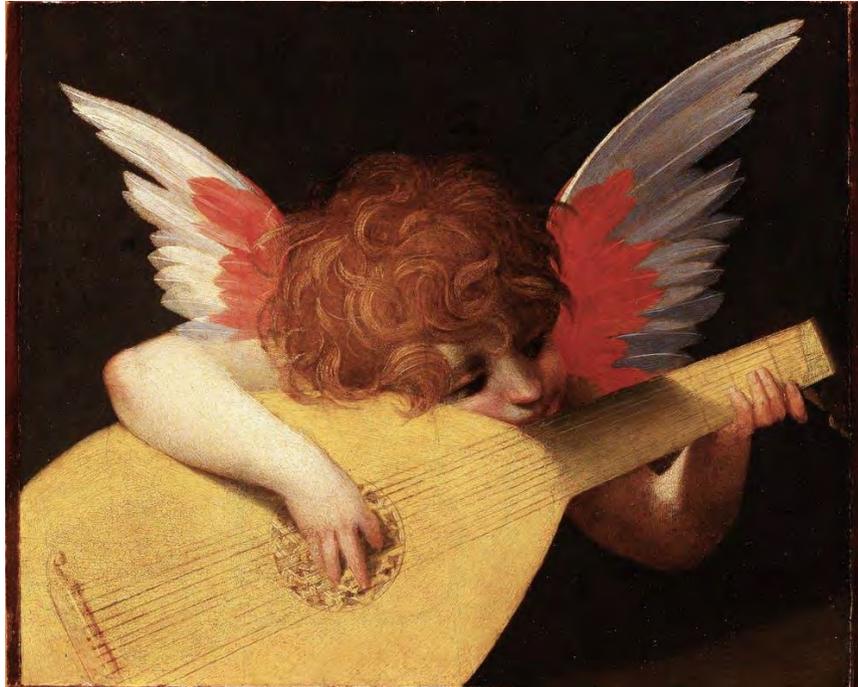
<https://www.youtube.com/watch?v=yoiDu3E9jls> (Beethoven "Moonlight" Sonata)

Interactive Spectrogram <https://musiclab.chromeexperiments.com/Spectrogram/>

Read more <https://www.musanim.com/mam/overview.html>

For Further Exploration

Have you seen the painting of an angel playing the lute (a plucked string instrument) that is hanging in the School of Grammar hallway near the Forum? It's one of my favorite paintings because I can really feel the concentration and effort that the angel is putting into it. It reminds me that music, or anything that we want to get better at, requires dedication and hard work. It is always worth the effort! (Dr. Dean)



<https://www.uffizi.it/en/artworks/angel-playing-the-lute>

Visit the music page at parnassteachers.com to see the full-color images and additional resources for this lesson, including more of our favorite music-related paintings!

1L Art

Scholar's Name: _____

Read me: Over the last few weeks we have been working on the human form, and how to draw it proportionally. First, we went over how to draw a head and lay out a face. Then, we learned how to set up a stick skeleton and draw out the body. Last week, you drew a open palm hand. Now, this week I want you to draw a gripping hand. Remember, if you have internet access there are videos on the school's website to help you through this sketch.



Step 1: Start by drawing in the simple shapes. To make the palm, start with a rectangle, then draw a U shape from one bottom corner to the other. To draw the fingers and thumb, make joint circles and bone lines. The only difference between this week and last week is that now you have to draw the fingers bending at these joints. Notice I draw all of the fingers in as if I can see them through the baton. I do this to lay out the placement of the fingers. In later steps, I will erase these lines or draw over them. If your sketch resembles the image below move on to the next step.



Step 2: Start adding thickness to your fingers, thumb and wrist. For your fingers, draw a large oval from joint to joint. For the wrist, draw a large half circle under your palm shape then a cylinder below that. If your drawing looks similar to the sketch below, you can move to the next step.



Step 3: For this step, start to add details and shading, and erase any guide lines you no longer need. If your hand sketch looks like the example below you should be good to send it back on the bus. If you want to keep your drawing you can email me a photo of it to Zachman@parnassusprep.com
REMINDER: Please make sure your full name is visible on your work or in the subject line of the email.



First & Last Name: _____

Hour _____

Red or Blue day _____

1L Work page: please draw your picture on this sheet.

1L Physical Education

Scholar's Name: _____

Name: _____

Teacher (Circle): MANGOLD or BECK

Circle: Red or Blue Hour: _____

SOL Gym Class Guide – Week of May 18th – May 22nd

Scholars: Please do a minimum of 20 minutes of continuous exercise 3 times a week, or every day if you want. Exercise will help you manage stress and is a great way to take a break.

All 1L, 2L, 3L and 4L Students:

Monday	Tuesday	Wednesday	Thursday	Friday
1. Stretch/Warm up for 5 minutes using our daily stretching routine. Include push-ups, sit-ups, planks to challenge yourself!	1. Stretch/Warm up for 5 minutes using our daily stretching routine. Include push-ups, sit-ups, planks to challenge yourself.	1. Stretch/Warm up for 5 minutes using our daily stretching routine. Include push-ups, sit-ups, planks to challenge yourself.	1. Stretch/Warm up for 5 minutes using our daily stretching routine. Include push-ups, sit-ups, planks to challenge yourself.	1. Stretch/Warm up for 5 minutes using our daily stretching routine. Include push-ups, sit-ups, planks to challenge yourself.
2. Do 15 minutes of continuous exercise. Choose from the list below.	2. Do 15 minutes of continuous exercise. Choose from the list below.	2. Do 15 minutes of continuous exercise. Choose from the list below.	2. Do 15 minutes of continuous exercise. Choose from the list below.	2. Do 15 minutes of continuous exercise. Choose from the list below.
3. Have a parent initial here after you complete your workout. _____	3. Have a parent initial here after you complete your workout. _____	3. Have a parent initial here after you complete your workout. _____	3. Have a parent initial here after you complete your workout. _____	3. Have a parent initial here after you complete your workout. _____

Complete #1-2 **THREE** times a week and have your parents initial box #3 when you finish each workout.

We want you to get moving! Here are some ideas for continuous exercise: go for a run, jump, juggle, lift weights, dance, do household chores like vacuuming, jump rope, bounce a ball, walk where you're allowed, create a minute-2-win it challenge, invent a game, throw a ball, play catch, climb, etc. You can also make up a game of your own!

Take care of yourselves! -Magister Mangold and Magister Beck