



Daily Schedule for Book 1: Badge of Honor

*Indicates an optional activity found in the Goldtown Adventures lapbook.
 (Lapbook activities can be **skipped** or purchased at www.GoldtownAdventures.com)

	Day 1	Day 2	Day 3	Day 4
<i>Badge of Honor</i>	Chapters 1-2	Chapters 3-4	-----	-----
Literature Guide	Page 7 #1-7	Page 7 #8-13	* Lapbook activity for chapters 1-3 (+ cover)	Pages 8-9
	Day 5	Day 6	Day 7	Day 8
<i>Badge of Honor</i>	-----	Chapter 5	Chapter 6	-----
Literature Guide	Pages 10-11	Page 12	Page 13 #1-7	* Lapbook activity for chapters 4-6
	Day 9	Day 10	Day 11	Day 12
<i>Badge of Honor</i>	Chapters 7-8	-----	Chapter 9	-----
Literature Guide	Page 13 #8-14	Pages 14-15	Page 16	* 1st lapbook activity for chapters 7-9
	Day 13	Day 14	Day 15	Day 16
<i>Badge of Honor</i>	-----	Chapter 10	Chapters 11-12	-----
Literature Guide	* 2nd lapbook activity for chapters 7-9	Page 17 #1-6	-----	* Lapbook activity for chapters 10-12
	Day 17	Day 18	Day 19	Day 20
<i>Badge of Honor</i>	Chapter 13	-----	-----	Chapter 14
Literature Guide	Page 17 #7-14	Pages 18-19	Pages 20-21	Page 22
	Day 21	Day 22	Day 23	Day 24
<i>Badge of Honor</i>	Chapter 15	-----	Chapters 16-17	Chapter 18
Literature Guide	Page 23 #1-8	* BOTH lapbook activities for chapters 13-15	-----	Page 23 #9-16
	Day 25	Day 26	Day 27	Day 28
<i>Badge of Honor</i>	-----	-----	Historical Note	-----
Literature Guide	* Lapbook activity for chapters 16-18	Pages 24-25	Pages 26-27	Pages 28-29

Badge of Honor Chapters 1-4

Show how well you understand the story by answering the questions.

Chapters 1-2

1. How long has it been since Jem and Ellie's mother passed away? _____
2. Why doesn't Jem want Ellie to go out to Cripple Creek with him?
A. She might drown. B. Jem will be in trouble for taking her. C. She's too young.
3. What is the name of Strike-it-rich Sam's donkey? _____
4. Circle the character traits that describe Ellie:
timid • prissy • bold • a "girly girl" • quick • stubborn • loyal • a tattler
5. In what year is this story set? _____
6. Why does Jem say, "Give me a gold pan and a quiet stream any day"?
A. because Jem always manages to find some gold when he pans
B. because Jem doesn't like the racket from the new stamp mill
C. because Jem can get away from his sister and have a quiet moment
7. Who catches Jem and Ellie at the creek? _____

Chapters 3-4

8. What does Jem see on his father's vest that shocks and worries him? _____

9. What is Sheriff Matt Coulter's first "official act" as the new sheriff?
A. He arrests a claim jumper.
B. He breaks up a riot in front of the saloon.
C. He rounds up his truant kids to haul them back to school.
10. How does Sheriff Coulter find out that his children are not in school?
A. Will Sterling tells him.
B. He stops by the schoolhouse.
C. He sees them playing in the creek.
11. Jem sells frog legs to the _____ café and sawdust to the _____ saloon.
12. Who do Jem, Ellie, and Pa meet at the stage? _____
13. What does Pa send Jem to do back at the ranch? _____

Digging Deeper

Jem has been selling sawdust to the town's saloon without his father's knowledge or permission. He thinks it is for a good cause and so reasons to himself that it is all right. Has there ever been a time when you did something that seemed "good" yet was not entirely honest? What happened? Discuss orally and write your answer below.

Coloring Fun

The Goldtown Stagecoach



What is the stagecoach driver's name (p. 28)? _____

Badge of Honor Vocabulary: Chapters 1-4

Match the underlined words with their meanings. Page numbers are given where the word is first used.

- | | |
|-------------------------------------|---|
| ___ 1. to be <u>obliged</u> (p.7) | A. to find gold |
| ___ 2. a <u>claim</u> (p.7) | B. an area of gold scattered along rivers or just below the surface |
| ___ 3. <u>haggling</u> (p.15) | C. to be forced to do something |
| ___ 4. a <u>stake</u> (p. 16) | D. a person who steals another person's claim |
| ___ 5. to <u>hit color</u> (p.16) | E. the piece of ground a prospector owns and works |
| ___ 6. a <u>claim jumper</u> (p.21) | F. bargaining; bartering |
| ___ 7. <u>placer gold</u> (p.24) | G. relatives—like aunts, uncles, and cousins |
| ___ 8. <u>kinfolk</u> (p.31) | H. another word for a miner's claim |

Meet the Characters

You have met a number of new characters in chapters 1-4. For each character listed below, write a few words to describe him or her—both what they are like on the outside and what they are like on the inside. The first one has been done for you.

Jeremiah "Jem" Coulter: brown eyes, brown hair, 12 years old, loves to pan for gold, he likes his sister but sometimes thinks she's a bother.

Ellianna "Ellie" Coulter: _____

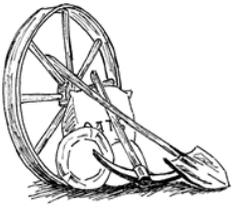
Strike-it-rich Sam "Strike": _____

Matthew Coulter "Pa": _____

Rose Tyson "Aunt Rose": _____

Nathan Tyson: _____

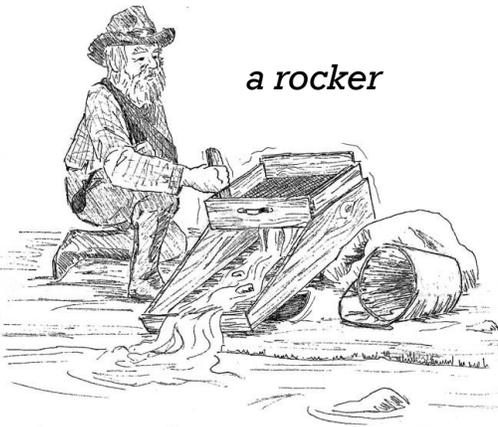
A Prospector's Tools



A gold prospector had a serious case of “gold fever” when he arrived in the California gold fields. He wanted to find gold before it ran out, but he knew he could not scrape it out of the ground with his bare hands. Eager miners streamed from the ships in San Francisco Bay and into the city by the same name. They quickly spent their money on their “grubstake,” the bare necessities needed to survive in gold country: tools, food, and supplies.

During the early days of the gold rush, a prospector needed only a **knife**, a **shovel**, a **pick**, and a **gold pan** for his tools. Gold could be pried from the rocks, and gravel could be scooped up from the river in a pan and swirled around to find the gold. Since gold is heavier than creek gravel, it most likely stayed in the bottom of the pan. Soon, however, the easy placer gold was taken. New tools were needed to go after the hard-to-reach gold nuggets and flakes.

One of the later tools a miner used was a **rocker (cradle)**. It worked like a rocking chair, with rockers attached to the bottom of a large box. A screen on top, a long handle, and a board with riffles (slats to catch the gold as it went through the cradle) completed this tool. The miner scooped gravel onto the screen then poured water over the whole mess while rocking the cradle back and forth with the handle. After he ran his mixture through the rocker, the miner used his gold pan to do the final separation of gold from gravel.

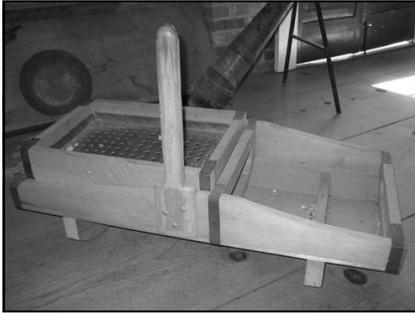


Another common piece of equipment was a **sluice box**. This rectangular box contained a number of riffles, which trapped the gold better and faster than a gold pan. Water moved down the box at an angle as it washed the dirt and gravel across the riffles.

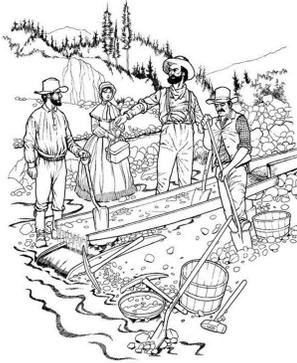
In some areas, mining companies got inventive. They sprayed water under high pressure (like a fire hose) against the topsoil. This was called **hydraulics**. The dirt washed away, carrying the gold with it to be separated out. After hydraulic mining was finished, the landscape looked as barren as the moon—bare rock. Not good for the environment. But the gold-crazed prospectors cared for nothing but finding gold and more gold. Over the past 150 to 160 years, the underbrush and trees have returned to cover the mined area.

A Prospector's Tools

Below are pictures of the various tools a gold prospector might have used. Can you identify each one from what you learned on the previous page?



1. _____



2. _____



3. _____



4. _____



5. _____

Web Fun
Copy this link into your web browser to watch someone pan for gold:
www.youtube.com/watch?v=3U8t2FoqoyQ

Jem's feet were numb inside his boots from crouching in the creek, and his hands shook with cold. He struggled to fill his gold pan with creek mud and gravel. ~Chapter 2

Could you pan for gold like Jem in an icy-cold mountain stream?

Find out by trying this activity.

Materials:

~ a large tub or bowl of cold water

~ two dozen (or more) ice cubes

~ two dozen (or more) small rocks of various sizes

~ a timer

What to Do:

1. Fill the tub with cold water. Dump the rocks in the tub. Dump the ice cubes in the tub. Set the timer for 10 minutes to allow the water to get cold.
2. When the water is icy cold, plunge your hands into the tub. Stir the rocks around on the bottom of the tub for 10 seconds. Now, slowly take the rocks out of the tub *one at a time* and set each one aside.
3. Ask someone to time you. How long can you keep taking out the rocks? _____

Badge of Honor Chapters 5-8

Show how well you understand the story by answering the questions.

Chapters 5-6

1. The sheriff is called away by a frantic miner. Why? _____

2. Circle the reasons why Jem's father was probably hired to be the new sheriff.
He knows everybody in town. • He has sheriff experience. • He is well liked.
He is an original settler • Nobody else wants to do it. • He'll make lots of money.
3. What is the name of the Coulter's dog? _____
4. Who does Jem run into on his way to find Aunt Rose, Ellie, and Nathan?
A. Miss Cheney, his teacher B. his father C. Will Sterling D. Strike-it-rich Sam
5. True or false? Will Sterling and Jem are good friends.
6. What does Jem trade Cole for a chance to stand on the rail and see into the saloon?
A. his gold nugget B. a pail of frog legs C. a nickel D. a sawdust customer
7. Who does the miners' court vote to throw out of town? _____

Chapters 7-8

8. Why is Pa upset when he sees Jem in front of the saloon?
A. Jem hasn't done what Pa asked. B. Jem is hurt. C. Jem is in the way.
9. Who meets Jem while he's walking home from town? _____
10. Where will these family members sleep, now that everything is "upside down"?
Jem: _____ Nathan: _____ Ellie: _____
11. Who is the "varmint" Jem and Ellie find stuck in the tree? _____
12. How did he get there? _____
13. What is Nathan "plenty old" for? _____
14. Circle some of the ranch chores the Coulter kids are responsible for.
sweeping the walk • milking the cow • emptying the dishwasher • getting mail
chopping wood • gathering the eggs • cleaning the garage • fixing fences
running the vacuum cleaner • mucking out the barn • grooming the horses

Digging Deeper

Jem has an encounter with Will Sterling, the mine owner's son. It's easy to see that the two boys do not get along. What qualities does Jem see in Will that makes Jem want to avoid him? _____

What do you do when you are forced to be around someone you don't like or when someone picks on you? Discuss orally and write your answer below.

Coloring Fun



The Coulter Ranch

List the Coulter family members:

Badge of Honor Vocabulary: Chapters 5-8

Match the underlined words with their meanings. Page numbers are given where the word is first used.

- | | |
|---|---|
| ___ 1. <u>Arkansas toothpick</u> (p.37) | A. an inexperienced person; not adapted to rural living |
| ___ 2. a <u>dispute</u> (p.39) | B. a long, deadly knife; a Bowie knife |
| ___ 3. <u>tomfoolery</u> (p.41) | C. buddies; friends |
| ___ 4. a <u>sarsaparilla</u> (p.43) | D. an argument |
| ___ 5. <u>ramshackle</u> (p.45) | E. slang for an animal that is a pest or a nuisance |
| ___ 6. <u>comrades</u> (p.49) | F. foolish behavior |
| ___ 7. a <u>varmint</u> (p.57) | G. carelessly or loosely constructed; broken-down |
| ___ 8. a <u>tenderfoot</u> (p.60) | H. a drink that tastes like root beer |

Characters

In chapters 5-8, you meet more characters from Goldtown.

Match the characters with their descriptions.

- | | |
|----------------------------|---|
| 1. _____ Dakota Joe | A. a French miner; gets kicked out of town |
| 2. _____ Mr. "Toby" Tobias | B. a bald miner; tells Pa about a fight in the saloon |
| 3. _____ Will Sterling | C. has an "Arkansas toothpick," a dangerous knife |
| 4. _____ "Frenchy" DuBois | D. owns the Big Strike saloon |
| 5. _____ No-luck Casey | E. Jem's classmate; the mine owner's son |

Setting: Where & When

By now you should have a good idea of the setting of *Badge of Honor*.

1. In which state is *Badge of Honor* set? _____
2. What year is it? _____
3. The Coulter ranch lies two miles outside which town? _____
4. Jem pans gold in _____ Creek.



Around the Horn

"Nathan and I intend to take a steamer around the Horn. They say it takes six or seven months, barring mishaps or major storms. From San Francisco, we will board a riverboat to Stockton, then take the stage to Goldtown."
~ letter from Aunt Rose

The letter told how she and Nathan would travel from Boston, Massachusetts, to Goldtown, California. They would go "around the Horn." The horn of *what*? What kind of trip was this? During the gold rush, there were three popular routes to reach California from back east: **1)** by wagon, overland across the prairie, which took 6 to 8 months; **2)** by ship to the Isthmus of Panama, across the jungles of the isthmus, then by ship up the west coast (this took 6 to 8 weeks); or **3)** around the tip of South America (Cape Horn), which took 6 months or more.

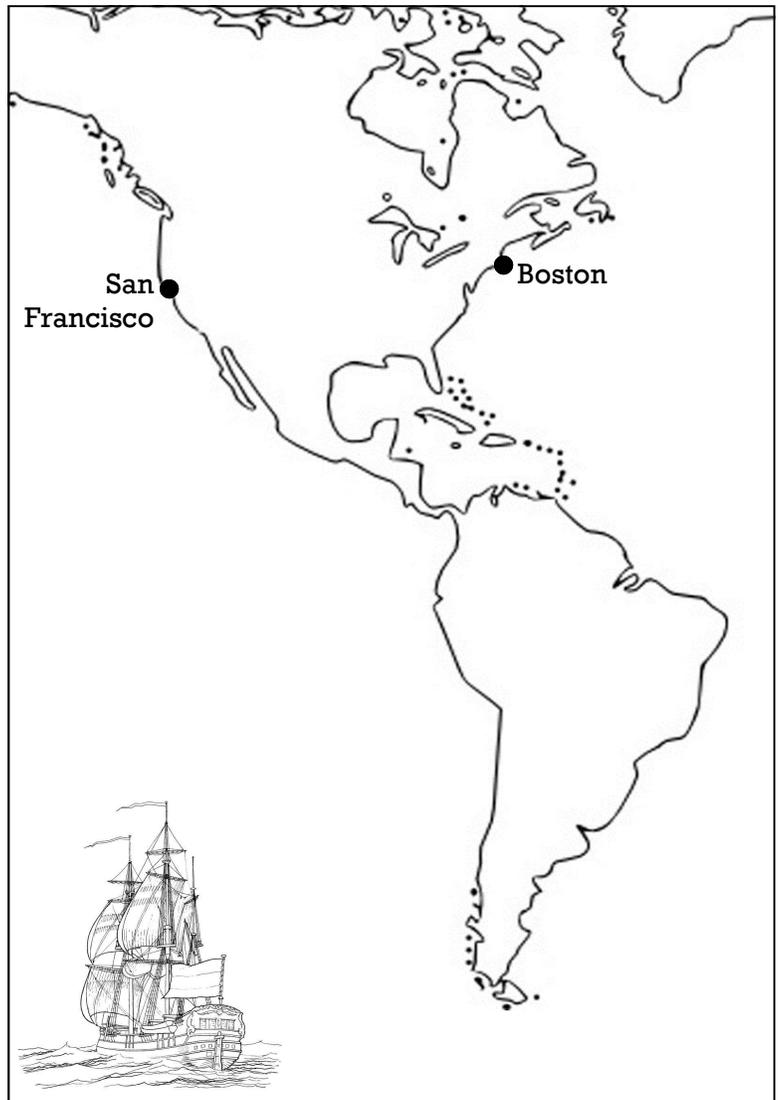
None of the routes were safe. Aunt Rose chose to go around the Horn. They boarded a ship in Boston and sailed through the Atlantic Ocean to the tip of South America.

The ship was overcrowded; the food was terrible, and so was seasickness. Worse, Cape Horn was known for its terrible storms. Some captains chose a shortcut through the Strait of Magellan, a dangerous route.

Once around Cape Horn, the ship sailed along the coast in the Pacific Ocean and eventually arrived in San Francisco.

DO THIS:

- * Label North America and South America.
- * Label the Atlantic and Pacific Oceans.
- * Label Cape Horn at the southern tip of South America.
- * Trace the route Aunt Rose and Nathan took from Boston to San Francisco.



Badge of Honor Chapters 9–13

Show how well you understand the story by answering the questions.

Chapters 9-10

1. The name of the Coulters' mean rooster is:
A. Mordecai B. Malachi C. Methuselah
2. Jem has a special skill that comes in handy later in the book. Ellie wants to learn this skill. What is it? _____
3. How much does Sheriff Coulter get paid to protect Goldtown? _____
4. What does Jem want to do to celebrate his first day of summer vacation?
A. catch frogs for Mr. Sims B. cut and deliver firewood C. pan gold at the claim
5. True or false? Pa's sheriff job is temporary until the town council finds somebody else.
6. Nathan brags that he will find _____ on his very first try.

Chapters 11-13

7. When the kids arrive at their gold claim, Jem discovers something is dreadfully wrong. What is wrong? _____
8. Strike named his burro Mountain Canary because . . .
A. he once had a canary and named his burro after the little bird.
B. the burro's "singing" is so loud it can be heard for miles.
C. the burro was born in the mountains.
9. Who is missing from his gold claim? _____
10. Circle the reasons why Jem, Nathan, and Ellie decide to follow the creek:
It leads home. • It leads to a gold claim. • They don't want to go home yet.
They want to find Strike-it-rich Sam. • They want to know why the creek dried up.
11. How do you think Cripple Creek got its name? _____

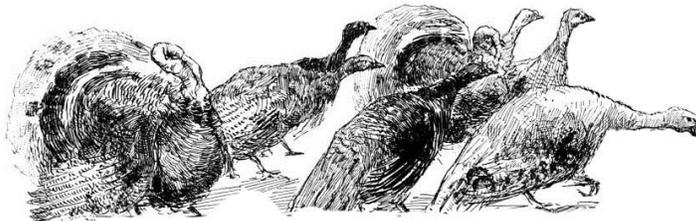
12. What do the kids see along the creek bank?
A. a pair of wolves B. a flock of wild turkeys C. the burro Canary
13. What is the "prize" Nugget brings to Jem? _____
14. Chapter 13 is titled "A Terrible Discovery." What is this terrible discovery?



Digging Deeper

Jem does plenty of chores, but he doesn't complain much except about watering Aunt Rose's garden). He actually appears to enjoy working hard and using his skills to earn money and help his family. What is *your* attitude toward chores and helping around the house? Look up these verses and explain how they might help you develop a good attitude about serving: **Colossians 3:17, 2 Thessalonians 3:10**

Web Fun Wild Turkey Calls



Jem calls to the wild turkeys, and they answer. Go to the website below to hear all of the different calls a turkey can make, and when they might use a certain call:

www.youtube.com/watch?v=NxP9CfxJxg

Badge of Honor Vocabulary: Chapters 9-13

Match the underlined words with their meanings. Page numbers are given where the word is first used.

- | | |
|--|--|
| ___ 1. a <u>concoction</u> (p.67) | A. a raised structure of dirt or gravel to hold back water; a creek bank |
| ___ 2. to <u>contradict</u> (p.68) | B. an outhouse |
| ___ 3. <u>punctuality</u> (p.70) | C. to say the opposite of someone's statement |
| ___ 4. they <u>loafed</u> (p.74) | D. a combination of various ingredients |
| ___ 5. <u>hoisted</u> (p.75) | E. to find one's way on, in, or across an area |
| ___ 6. a <u>privy</u> (p.83) | F. hung around and passed the time doing nothing in particular |
| ___ 7. to <u>navigate</u> (p.83) | G. the character trait of being on time |
| ___ 8. an <u>embankment</u> (p.90) | H. raised something or someone into position |
| ___ 9. <u>ravaged</u> the turkeys (p.91) | I. ruined; brought heavy damage to |



Character Scramble

Can you unscramble the names of the characters you've met so far? Hint: Use the clues and the word box.

Strike	Toby Tobias	Will Sterling	Nugget
Frenchy Dubois	Dakota Joe	Matthew Coulter	turkeys

1. He grabs a knife and goes after another miner: **Takdao Ejo** _____
2. He owns the Big Strike saloon: **Basiot Yobt** _____
3. A golden dog that trees Nathan: **Guegnt** _____
4. This boy is *not* Jem's best friend: **Liwl Lesgntir** _____
5. A Frenchman who frightens Jem: **Chefyrn Biusdo** _____
6. This miner has never struck it rich: **Kirtes** _____
7. He is Aunt Rose's brother: **Wetham Trolceu** _____
8. The kids find these along the creek bank: **Syurket** _____

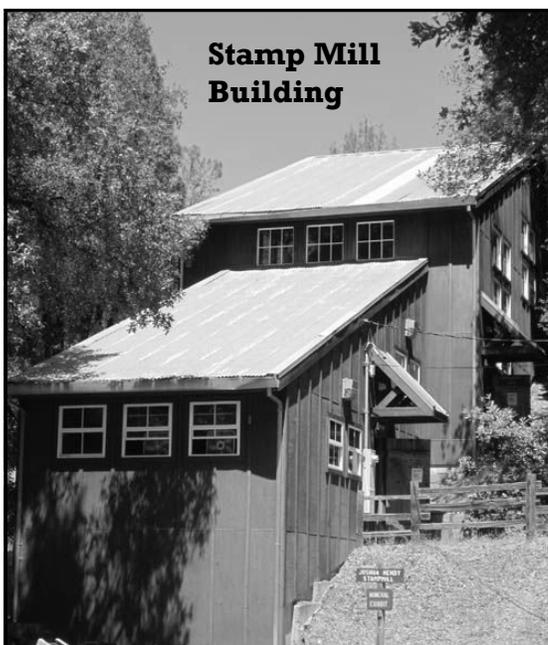
The Stamp Mill

“What is that infernal, banging racket?” Aunt Rose asked.

Pa removed his hat and slapped the dirt and mud from his clothes. “That’s just the stamp mill crushing rocks from the mine, to free up the gold. Might as well get used to it.” He grinned and jammed his hat back on his head. “Welcome to Goldtown, big sister.”

Throughout the story, echoing in the background of every scene, the stamp mill clangs. It was an essential part of every hard-rock mining operation during the gold rush. After all, what good was it to bring up tons of gold-encrusted ore if there was no way to get the precious metal out of the quartz rock?

Stamp mills have been around for over 2,000 years. The early Greeks and Romans used a water wheel to power the metal weights that crushed the rocks. The design did not change much over the years. A gold-crushing stamp mill in 1864 consisted of a set of steel rods with heavy weights on the ends that could pound away at the rock. The stamps weighed 1,000 pounds *each*. They came in sets of five, so an outfit could boast of a 5-stamp, 10-stamp, or even 20-stamp mill. The stamps were held together in huge frames (some over 20 feet high) and housed in a 3- to 4-story building. A crankshaft, powered by a water wheel or a steam engine, raised the stamps. Then *bang*, down they came on the rocks in the trough under the heads. Over and over. Day and night. The banging could be heard for miles, but folks got used to it.



Once the gold-bearing ore was crushed to a fine powder, it was mixed with mercury (which was called “quicksilver” in the 1800s). The gold stuck to the mercury, and the sand washed away. Later, after more processing, the gold/mercury mixture was heated. The mercury was vaporized (then condensed to reuse) and the gold was left. It was poured into molds and cooled to form gold bars. What a long, poisonous, time-consuming process!

Web Fun

To watch a real, historic stamp mill in action, copy this link into your web browser:

www.youtube.com/watch?v=Sz8HjvKo2eM

Badge of Honor Word Search

Badge of Honor contains a number of words you may have never come across before. By now, however, the words related to gold, mining, and gold camps should be more familiar. Eighteen words from the story are scrambled in the box below. When you find a word you recognize, circle it. Words run vertically (up and down) and horizontally (sideways). Have fun!

Word Box

STAMP MILL

PLACER

PROSPECTOR

SLUICE BOX

MINERS COURT

TENDERFOOT

GOLDTOWN

MOUNTAIN CANARY

MINER

SHERIFF

NUGGET

GREENHORN

BOSTON

WINDLESS

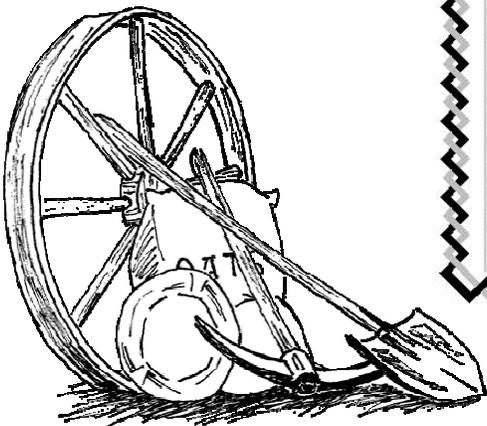
CRIPPLE CREEK

BURRO

GOLD PAN

CLAIM JUMPER

C M N U E P L A C E R M B Y
L I U O N B U R R O C L O R
A N G O T E E E I M P J S I
I E G E G O L D P A N N T U
M R E R P R O S P E C T O R
J S T A M P M I L L T M N T
U C C O T E N D E R F O O T
M O U N T A I N C A N A R Y
P U U L S S H E R I F F R M
E R N S L U I C E B O X S I
R T G E C G R E E N H O R N
G O L D T O W N K O N P E E
W I N D L A S S E M I C H R
O T O E D P S H M F R T R O



Badge of Honor Crossword Puzzle

Complete the crossword puzzle below based on words and ideas from *Badge of Honor*.
Use the word bank for help.

DOWN:

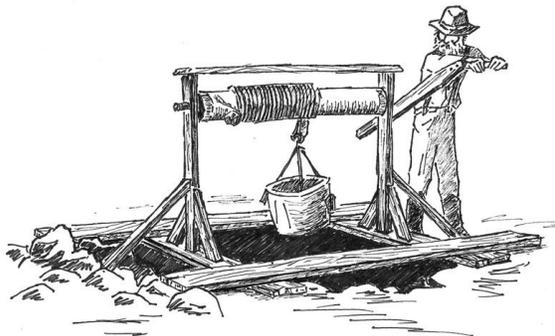
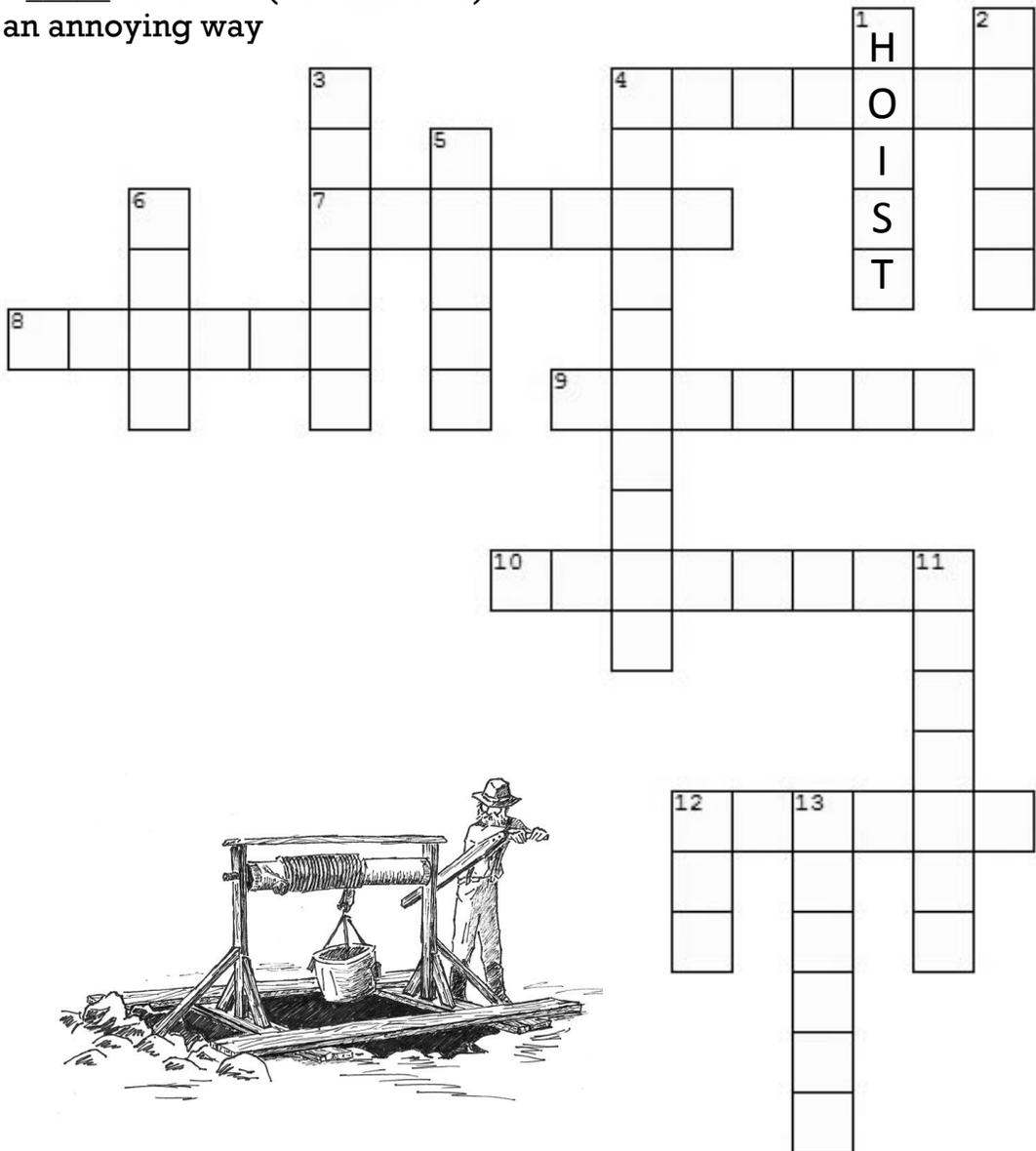
1. ~~to raise something into position~~
2. the piece of ground a prospector works
3. to turn someone or something aside from a course or direction
4. an inexperienced person; one not adapted to rough living
5. another word for "outhouse"
6. to hang around, doing nothing in particular
11. relatives
12. "The wages of ____ is death" (Romans 3:23).
13. to bargain in an annoying way

ACROSS:

4. one who acts foolishly
7. slang for an animal pest
8. the gold found scattered along riverbanks or just beneath the ground
9. slang for "creature"; an animal
10. another name for the Bible or God's Word
12. Jem played hooky from _____.

WORD BANK

- divert
- critter
- placer
- privy
- tenderfoot
- Good Book
- tomfool
- sin
- claim
- school
- varmint
- haggle
- heist
- kinfolk
- loaf



Badge of Honor Chapters 14–18

Show how well you understand the story by answering the questions.

Chapters 14-15

1. _____ and _____ take Copper and go for help.
2. _____ stays to look after Strike during the long night ahead.
3. True or false? Ellie returns to tell Jem that Nathan had an accident and is hurt.
4. What is Jem's great plan to get himself and Ellie (and Strike) some supplies?
A. He's going to find Canary. B. He's going to town. C. He's going to hunt.
5. Jem sees something that explains why Cripple Creek has dried up. What is it?

6. Who catches Jem and points a revolver at him? _____
7. Why have the claim jumpers diverted the creek to their gold claim?
A. to have a steady supply of water for cooking and bathing
B. to wash the gold out of the dirt they're bringing up from the mining hole
C. to supply water to other miners in the area
8. What is the name of the contraption Frenchy and his men are using to get the gold and dirt out of the mining hole?
A. a windlass B. a slice box C. a cradle

Chapters 16-18

9. Who cuts Jem free? _____
10. To hide from Frenchy and his men, Jem wants to go deeper into what? _____
11. Ellie does not agree. What is *her* plan? _____
12. How do Jem and Ellie get Canary to stop making so much noise?
A. They cut him loose. B. They feed him. C. They take him with them.
13. What does Jem do to keep Ellie's mind off the terrifying night?
A. He rocks her to sleep. B. He tells her a story. C. He recites Scripture verses.
14. Why doesn't Jem go back to camp with No-luck Casey and Ellie?
A. He's been captured. B. His pa is walking into a trap. C. He's too tired.
15. What does Jem do to give his father the split-second advantage he needs to overpower Frenchy and his men? _____
16. What does Jem discover about his father that he never knew?

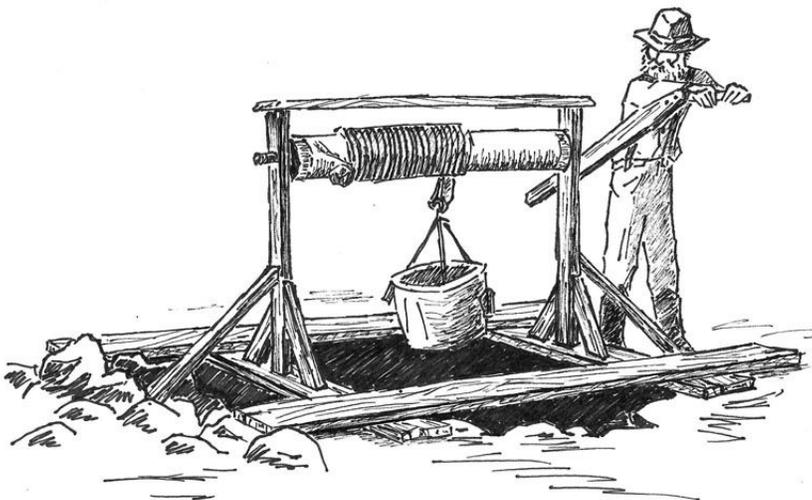


Digging Deeper

At the end of chapter 15, Jem is tied up. He has plenty of time to think things over and comes to the conclusion that he has not given his father the credit he deserves. It becomes clear to Jem that his father cares a great deal for him and Ellie, and for other people as well. Taking a dangerous, thankless job as sheriff is one way he shows his love for his family and his community. What are some other ways throughout this story that Sheriff Coulter shows he cares? Discuss orally and write your answer below.

Coloring Fun

A Windlass



What are Frenchy and his pals using a windlass for (p.113)?

Badge of Honor Vocabulary: Chapters 14-18

Match the underlined words with their meanings. Page numbers are given where the word is first used.

- | | |
|--|---|
| ___ 1. <u>treacherous</u> (p.100) | A. drooping or dangling |
| ___ 2. <u>isolated</u> (p.102) | B. a threat or danger |
| ___ 3. <u>ornery</u> (p.106) | C. turned aside from a course or direction |
| ___ 4. <u>diverted</u> (p.108) | D. a hoist or pulley used to lift something |
| ___ 5. a <u>windlass</u> (p.113) | E. a chase or hunt |
| ___ 6. a <u>hazard</u> (p.120) | F. mean; bad-tempered |
| ___ 7. a <u>pursuit</u> (p.123) | G. very dangerous |
| ___ 8. a <u>lolling</u> tongue (p.129) | H. far away from other people or places; remote |

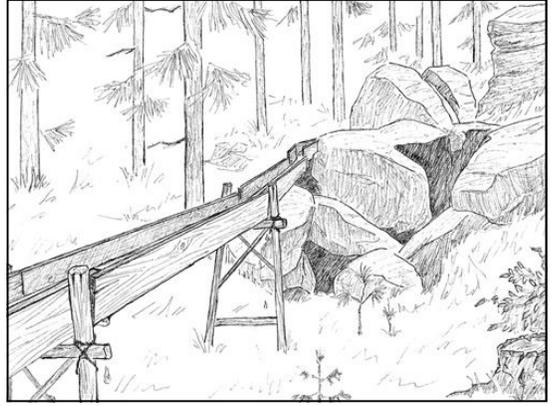
My Favorite Character

Have you discovered a favorite character? If so, write about that character here. What is it you like about this character? Is he or she brave? Funny? Adventurous? Use examples from the book to show your favorite character's traits. Example: *My favorite character is Strike. He is determined. He never gives up looking for gold. He doesn't worry about what other people think of him. And he cares for his burro, Canary.*

My favorite character: _____

Badge of Honor: Flumes

Jem did not have to crawl into the flume to know what was in it. Water—a lot of it. Streams of water gushed through the seams between the flume’s sections. Whoever had thrown together this flume had done so in a hurry. ~Chapter 14



Have you ever ridden a log flume ride at a water park? Did you know they copied this ride from real flumes? To transport timber and lumber (or water)

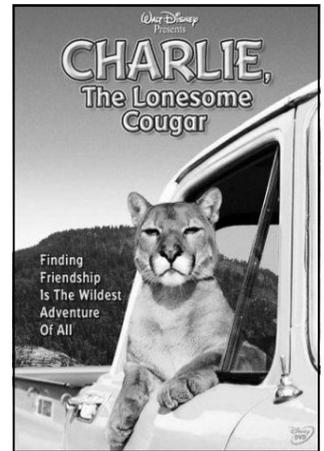
down mountainous terrain, a trough was built. Flowing water was diverted from a water source and poured into the flume. Flumes could span deep gorges and steep mountain slopes. The flume floated logs from mountain forests down to the lowland rivers, where the sawmills cut the timber into lumber. This method saved money, time, and injuries from having to haul timber down steep mountain trails using oxen and horses. The first flumes were square, but in 1868, a V-shaped flume was designed. A V-shaped flume kept the logs from jamming up.

The Kings River Flume was the longest flume, built in 1890. It spanned over sixty-two miles, from the Sierra Nevada to Sanger, California. “Flume herders” were stationed in various locations along the flume to check on the flow of lumber and water. Although it was dangerous, these flume herders (and other loggers) sometimes rode down the log flume (“shot the flume”) in little boats called “hog troughs.”

Web Fun

To watch a cougar ride a log flume, copy this link into your web browser. Jump ahead on the timer to 0:36:
(from *Charlie the Lonesome Cougar*, Walt Disney, 1967)

www.youtube.com/watch?v=Mx8kJYWXhzs



There were many problems with flumes: the winter freezes, the flume breaking, and the logs jamming up to name a few. Today, log flumes have been replaced by logging trucks to bring timber down from the high country. If you look carefully, you might see flume remains along rivers in states like Washington, Oregon, and California.

Today, people “shoot the flume” at amusement parks. It is a much safer ride than those attempted in the 19th and early 20th centuries. Inspired by daredevil flume riders of the past, Bud Hurlbut created the first log flume ride in 1963 at Six Flags in Arlington, Texas. Since then, hundreds of flume rides have popped up all over the world.



Math: Shooting the Flume



The most famous account of someone “shooting the flume” (the inspiration for the modern-day log flume ride) was written by a reporter from the East Coast. In 1875, Mr. H.J. Ramsdell visited the Bonanza V flume above Lake Tahoe in Nevada. The owners suggested that Mr. Ramsdell accompany them down the 15-mile flume. The reporter was hesitant but finally agreed.

Your mission: Can you figure out these flume math problems?

1. If Mr. Ramsdell zipped down the Bonanza V flume at 30 miles/hour, and the flume was 15 miles long, how long did it take the reporter to reach the end of his trip?

Perhaps you can understand why Mr. Ramsdell said, *“You cannot stop. . . . You have nothing to hold to. . . . You have only to sit still, shut your eyes, say your prayers . . . and wait for eternity. It is all there is to hope for after you are launched in a flume-boat.”* (To compare speeds, you can race your bike down a steep hill at about 20 miles/hour.)

2. The longest flume, the Kings River flume, was a little over 60 miles long. If a log moved at 20 miles/hour down this flume, how long would it take the log to reach the sawmill in Sanger, California? (*count by 20s until you get to 60*): _____ hours
3. Frenchy and his partners want to build a flume to carry water for washing their diggings. The flume must stretch from Cripple Creek to their gold claim, 1,500 feet away. A flume is built in sections, and the men can build and carry 20-foot sections at a time. How many flume sections do they need to complete their project? (*divide 1,500 by 20*): _____ flume sections are needed
4. A log flume ride in England stretches $\frac{1}{2}$ mile and takes 5 minutes to complete. The ride can carry 35 log boats at the same time along the water route. If each log boat holds 7 passengers, how many people can enjoy this ride at once? (*multiply 35 X 7*)
_____ people can enjoy the ride

Badge of Honor: 1860s Pistols

His pistol went off with a loud crack and dropped to the ground. The shot went wild. Smoke billowed up into Frenchy's face. It gave the sheriff the split-second distraction he needed. . . . Jem lost sight of what happened next. A cloud of smoke from firing off the rounds of black powder swirled around Pa and the others in a thick, choking screen. ~ Chapter 18

Smoke, smoke, and more smoke. That's what a person would remember if he or she fired a pistol in 1864. And a *lot* of noise. After firing three shots in a row, the sheriff's ears must have been ringing. So were the ears of anyone else standing nearby. And the smell? Ugh! Sulfur from the exploding black powder burned your eyes and made them water.

So . . . why all the smoke, noise, and bad odors? There were no all-in-one cartridges for handguns in 1864. The Henry rifle used a cartridge, but pistols did not until 1873. Folks loaded their homemade bullets, along with black powder and percussion caps (to fire the round), into the cylinder of the handgun. This was tricky. You had to load each chamber and then smear grease over it to keep the powder where it belonged—in its own chamber. If you were sloppy, shooting might cause the rest of the chambers to go off in a chain reaction. Or your pistol might misfire and not go off at all.

When you fired your weapon, the 40 to 60 grains of black powder exploded and sent the bullet on its way . . . along with a lot of smoke. If the gun went off inside a room, someone could escape by crawling along the floor to the exit, unseen by the shooter.

Sheriff Coulter had to pull the hammer back and then pull the trigger for each shot. It took a lot of strength to pull that hammer back. A boy like Jem would use two hands, with both thumbs on the hammer. All the while, he would be holding up a weapon that weighed from 2.5 to 4 pounds (the weight of a half gallon of milk), depending on the gun.

Black powder was powerful, but a person could take many hits from such a pistol and live, if vital organs were not hit. A heavy leather vest might slow the bullet enough that serious injury could be avoided. Occasionally, a bullet would ricochet off a belt buckle.

Sometimes, someone would shoot but the chamber would not fire. The shooter then pulled back on the hammer and tried the next chamber. Maybe it would fire; maybe not. If the firing cap was not firmly in place, perhaps the hammer hitting it would tap it down. Then it would go off on the second try. In a gun fight, men often just kept firing, hoping to find a chamber that would fire. Loading and shooting firearms in the mid-1800s was not an exact science. It often resulted in serious accidents and injuries.

Loading an 1860s Revolver

How did Sheriff Coulter load his pistol? *Very* carefully. Perhaps you have seen (on TV) how easily guns are loaded nowadays. Load the cartridges into a cylinder or a clip and click it in place. You're ready to shoot. It's easy today because all three components—bullet, powder, and primer—are inside that little cartridge.

Not so during the gold rush days. Each of the six chambers in a pistol had to be loaded separately and exactly right. (One chamber stayed empty, so the hammer could rest against an empty chamber. No sense blowing yourself up.)



Black powder next to a quarter

Materials the Sheriff Needed:

- .36 caliber lead balls (bullets)
- Small, round cotton pieces
- Percussion caps (firing caps)
- Black powder
- Powder flask for measuring the black powder exactly
- Beeswax or lard (animal fat)

Modern cartridge



Help Sheriff Coulter load his Colt revolver. Below are the steps for getting the pistol ready to fire. Put the steps in order by labeling them from 1 to 9, first to last. Have fun!

Web Fun: Watching this video on loading and firing a Colt navy revolver will help you with this activity:

www.youtube.com/watch?v=yuyryalXfpE&feature=related

- 1 Stand the pistol up, with the muzzle pointing straight up.
- Make sure the pistol is totally empty. If not, empty any full chambers.
- Rest the hammer on the empty cylinder for safety. The revolver is ready for use.
- Put the ball (bullet) in the chamber.
- 5 Use the lever (right under the barrel of the gun) to push the ball into the chamber.
- Place a percussion (firing) cap on the nipple end of each of the loaded chambers.
- Smear the top of the loaded cylinder with beeswax or lard. This keeps it watertight.
- Load the remaining cylinders, leaving one empty (to rest the hammer safely).
- 3 Pour the exact amount of black powder you need into one chamber. Don't spill!

To fire the revolver, pull back on the hammer, then pull the trigger. The hammer will come down and hit the percussion cap. This ignites the black powder, which explodes and propels the bullet out of the gun.

ANSWER KEY: BADGE OF HONOR – 1

Page 7: Chapters 1-4

Chapters 1-2

1. 4 years
2. because Jem would get in trouble for taking Ellie along with him to the creek
3. Canary
4. bold, quick, stubborn, loyal
5. 1864
6. B
7. their father (Pa)

Chapters 3-4

8. a shiny sheriff's badge
9. C
10. A
11. Black Skillet; Big Strike
12. Aunt Rose and Nathan
13. fetch the wagon for their relatives' baggage

Page 8: Coloring

The stagecoach driver's name is Walt.

Page 9: Chapters 1-4

Vocabulary

1. C
2. E
3. F
4. H
5. A
6. D
7. B
8. G

Page 11: Tools

1. cradle or rocker
2. sluice box
3. pick and shove
4. gold pan
5. hydraulic mining

Page 14: Coloring

Coulter Family

Pa (Matt), Aunt Rose, Jem, Ellie, and Nathan

Page 15: Chapters 5-8

Vocabulary

1. B
2. D
3. F
4. H
5. G
6. C
7. E
8. A

Characters

1. C
2. D
3. E
4. A
5. B

Setting

1. California
2. 1864
3. Goldtown
4. Cripple Creek

Page 13: Chapters 5-8

Chapters 5-6

1. There is a knife fight at the saloon.
2. He knows everybody in town; he is well liked; he is an original resident.
3. Nugget
4. C
5. false
6. D
7. Frenchy DuBois

Chapters 7-8

8. A
9. Ellie
10. Jem: attic; Nathan: attic; Ellie: in Pa's old room (or) with Aunt Rose
11. Nathan
12. Nugget chased him up a tree.
13. to help with the ranch chores
14. milk the cow; chop wood; gather eggs; fix fences; muck out the barn; groom the horses

Page 17: Chapters 9-13

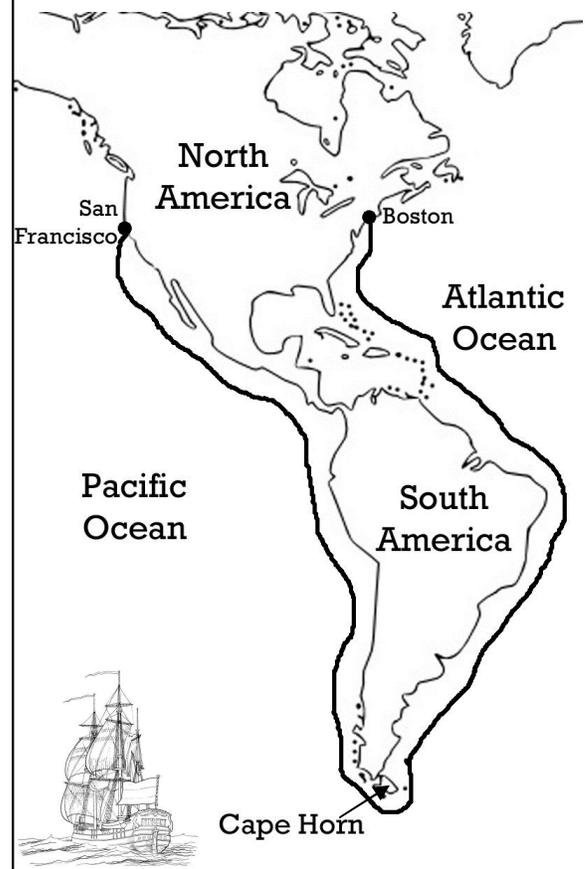
Chapters 9-10

- | | |
|---------------------------------|----------|
| 1. A | 5. false |
| 2. He can pitch and throw well. | 6. gold |
| 3. 40 dollars a month | |
| 4. C | |

Chapters 11-13

7. The creek has dried up.
8. B
9. Strike
10. They don't want to go home yet; they want to find Strike; they want to know why the creek dried up.
11. Sharp rocks and slippery creek bed cause a horse or cattle (or even people) to slip and be injured.
12. B
13. a bloody hat 14. Strike is hurt.

Page 16: Around the Horn



ANSWER KEY: BADGE OF HONOR – 2

Page 19: Chapters 9-13

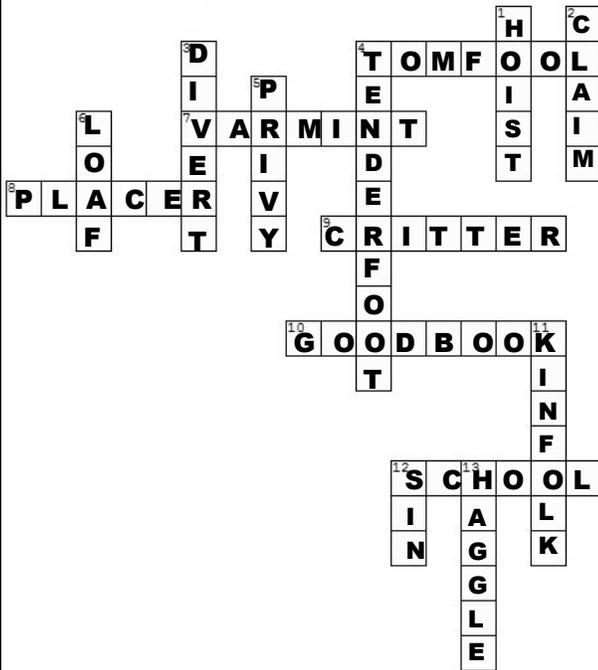
Vocabulary

- D
- C
- G
- F
- H
- B
- E
- A
- I

Character Scramble

- Dakota Joe
- Toby Tobias
- Nugget
- Will Sterling
- Frenchy DuBois
- Strike
- Matthew Coulter
- turkeys

Page 22: Crossword Puzzle



Page 25: Chapters 14-18

Vocabulary

- G
- H
- F
- C
- D
- B
- E
- A

Favorite Character

Answers will vary.

Page 21: Goldtown Word Search



Page 23: Chapters 14-18

Chapters 14-15

- Nathan, Ellie
- Jem
- false
- A
- a flume
- Frenchy
- B
- A

Chapters 16-18

- Ellie
- woods
- find the flume
- A
- C
- B
- Jem throws a rock.
- His pa is fast with a gun.

Page 24: Coloring

To bring buckets of dirt up from a mining hole. Then they wash the dirt to find the gold.

Page 27: Math: Shooting the Flume

- The trip takes **1/2 an hour (30 minutes)**.
- The log will take **3 hours** to reach the sawmill. (Divide 60 miles by 20 miles/hour = 3 hours.)
- Frenchy needs **75 sections** of flume. (Divide 1,500 by 20.)
- 245 people** can enjoy the ride. (The length of the ride and how long it takes are not needed to solve the problem. Simply multiply how many people there are in each boat (7) by how many log boats there are (35) to get the number of people on the ride.)

Page 29:

Loading a Navy Colt Revolver

Steps in order:

- 1
- 2
- 9
- 4
- 5
- 7
- 6
- 8
- 3