

A Y-Shaped Array of Telescopes

Fill in the circle by the correct answer. Then answer questions 3, 4, and 5.

1. The diameter is the length _____.
 (A) around the middle of a three-dimensional ball, like our Earth's equator
 (B) of a straight line that passes from one point on a circle through its center to an opposite point on the circle
 (C) of a straight line that passes from the middle of one dish to the middle of another
 (D) of one side of a square that measures about 400 square miles in area
2. In paragraph 4, the terms "high frequency" and "low frequency" refer to how _____.
 (A) high-pitched sounds are
 (B) often radiating waves occur
 (C) long or short a radiating wave is
 (D) varied the electromagnetic spectrum is
3. In what two ways does a radio telescope work better than an optical one?

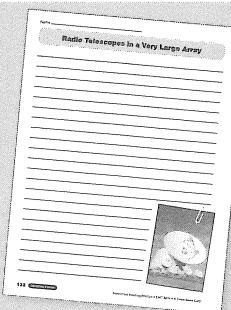
4. Use the diagram to list the kinds of radiating waves from shortest to longest.

5. What might be one advantage that an optical telescope has over a radio one?

Write About the Topic

Use the Writing Form to write about what you read.

Answer the questions Who?, What?, Where?, When?, Why?, and How? to summarize the text.



Steve Jobs, Computer Pioneer

Level 1 ■

Words to Know list, Reading Selection, and Reading Comprehension questions

Steve Jobs's Early Years

Fill in the circle by the correct answer. □

Steve Jobs's Early Years

Do you like to earn your friends and talk with your parents? Do you like to make a lot of noise in a public space? If so, you were one of the people responsible for it! Steve Jobs was a very noisy baby who would cry until his mother, Laurene Jobs, would give him a bottle of Benadryl.

Growing Up in Silicon Valley

In 1955, Steve Jobs and his family moved to San Francisco, California, on February 24, 1955. Steve's parents, Paul and Laurene Jobs, had moved to San Jose, California, to work at the Fairchild Semiconductor Company. Steve was a smart boy growing up in San Jose. His teachers did not think he had much potential. Steve's mother, Laurene, however, believed in him. She encouraged him to work hard and never gave up. Steve's mother taught him that if you work hard and never give up, you can accomplish anything.

School

When Steve was in first grade, his teacher told him that he was not a good student. Steve's mother, Laurene, however, believed in him. She encouraged him to work hard and never give up. Steve's mother taught him that if you work hard and never give up, you can accomplish anything.

Young Steve

Young Steve grew up with his dad in their garage workshop. He liked working on mechanical and electrical things. He enjoyed working on model planes and cars. He also liked playing with his toys and putting them back together. He would figure out how they worked and then put them back together.

High School

In 1968, Steve entered Reed College in Oregon. He was only 17 years old. After one semester there, Steve got bored and dropped out. He withdrew from Reed, but he continued to hang around the campus. He worked part-time jobs there that interested him, such as working in the computer lab. Steve's dad, Mike, took him to the college library class of Reed. There, Steve learned about computers and began to learn more about them. Steve's dad, Mike, taught him how to type faster and more efficiently.

Steve Jobs, Computer Pioneer

Photo credit: Steve Jobs, Computer Pioneer © 2012 Scholastic Inc.

Level 2 ■■

Words to Know list, Reading Selection, and Reading Comprehension questions

A Career of Ups and Downs

Fill in the circle by the correct answer. □

A Career of Ups and Downs

Steve Jobs, co-founder of Apple Computer, had a career filled with downs all his career. He dropped out of college, was fired from his job, and was not the only person to do so. When he was 30, his company went bankrupt.

Steve and Steve Jobs Create Apple Computer

Steve Jobs, co-founder of Apple Computer, had a career filled with downs all his career. He dropped out of college, was fired from his job, and was not the only person to do so. When he was 30, his company went bankrupt.

Apple Computer

Steve Jobs, co-founder of Apple Computer, had a career filled with downs all his career. He dropped out of college, was fired from his job, and was not the only person to do so. When he was 30, his company went bankrupt.

Apple

Steve Jobs, co-founder of Apple Computer, had a career filled with downs all his career. He dropped out of college, was fired from his job, and was not the only person to do so. When he was 30, his company went bankrupt.

The Apple Computer

Steve Jobs, co-founder of Apple Computer, had a career filled with downs all his career. He dropped out of college, was fired from his job, and was not the only person to do so. When he was 30, his company went bankrupt.

Apple's Big Success

In 1977, Apple acquired a major investor, Steve Wozniak, and Steve had a friend that invested in his company. Steve Wozniak was a computer engineer in the same neighborhood as Steve Jobs. Steve Wozniak and Steve Jobs started the first computer company, Apple Computer. They called it the Apple I because it was the first computer they made. They sold it for \$666.66 each. Steve Wozniak and Steve Jobs started the first computer company, Apple Computer. They called it the Apple I because it was the first computer they made. They sold it for \$666.66 each.

Many of Jobs' former colleagues claim that he was only 20 years old and less experienced than Wozniak. Steve Wozniak and Steve Jobs started the first computer company, Apple Computer. They called it the Apple I because it was the first computer they made. They sold it for \$666.66 each.

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Steve Jobs, Computer Pioneer

Photo credit: Steve Jobs, Computer Pioneer © 2012 Scholastic Inc.

Level 3 ■■■

Words to Know list, Reading Selection, and Reading Comprehension questions

Steve Jobs Bounces Back

Fill in the circle by the correct answer. □

Steve Jobs Bounces Back

Steve Jobs, co-founder of Apple Computer, had a career filled with downs all his career. He dropped out of college, was fired from his job, and was not the only person to do so. When he was 30, his company went bankrupt.

Project Juno

Steve Jobs, co-founder of Apple Computer, had a career filled with downs all his career. He dropped out of college, was fired from his job, and was not the only person to do so. When he was 30, his company went bankrupt.

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MacBook Pro

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MacBook Pro

Steve Jobs, co-founder of Apple Computer, had a career filled with downs all his career. He dropped out of college, was fired from his job, and was not the only person to do so. When he was 30, his company went bankrupt.

Steve Jobs, Computer Pioneer

Photo credit: Steve Jobs, Computer Pioneer © 2012 Scholastic Inc.

Assemble the Unit

Reproduce and distribute one copy for each student:

- Visual Literacy page: Timeline of Steve Jobs's Life and Career, page 141
- Level 1, 2, or 3 Reading Selection and Reading Comprehension page and the corresponding Words to Know list
- Graphic Organizer of your choosing, provided on pages 180–186
- Writing Form: Steve Jobs, page 142

Introduce the Topic

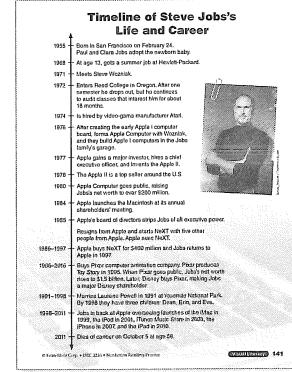
Read aloud and discuss the timeline on the Visual Literacy page. Explain that if he were still alive, Steve Jobs would be the age of students' grandparents. At age 21, Steve and a good friend started a computer company, Apple, that changed technology forever.

Read and Respond

Form leveled groups and review the Words to Know lists with each group of students. Instruct each group to read their selection individually, in pairs, or as a group. Have students complete the Reading Comprehension page for their selection.

Write About the Topic

Read aloud the leveled writing prompt for each group. Tell students to use the Graphic Organizer to plan their writing. Direct students to use their Writing Form to respond to their prompt.



Visual Literacy

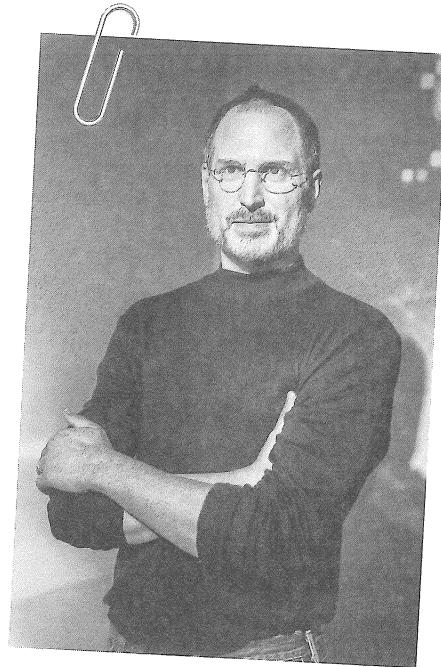
Steve Jobs

Photo credit: Steve Jobs, Computer Pioneer © 2012 Scholastic Inc.

Writing Form

Timeline of Steve Jobs's Life and Career

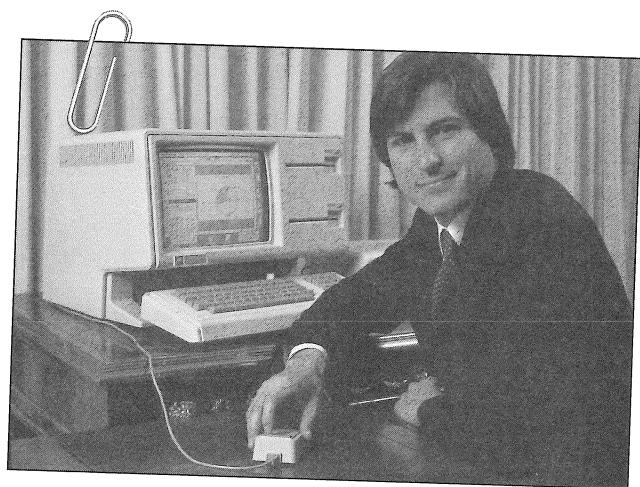
- 1955 Born in San Francisco on February 24.
Paul and Clara Jobs adopt the newborn baby.
- 1968 At age 13, gets a summer job at Hewlett-Packard.
- 1971 Meets Steve Wozniak.
- 1972 Enters Reed College in Oregon. After one semester he drops out, but he continues to audit classes that interest him for about 18 months.
- 1974 Is hired by video-game manufacturer Atari.
- 1976 After creating the early Apple I computer board, forms Apple Computer with Wozniak, and they build Apple I computers in the Jobs family's garage.
- 1977 Apple gains a major investor, hires a chief executive officer, and invents the Apple II.
- 1978 The Apple II is a top seller around the U.S.
- 1980 Apple Computer goes public, raising Jobs's net worth to over \$200 million.
- 1984 Apple launches the Macintosh at its annual shareholders' meeting.
- 1985 Apple's board of directors strips Jobs of all executive power.
Resigns from Apple and starts NeXT with five other people from Apple. Apple sues NeXT.
- 1986–1997 Apple buys NeXT for \$400 million and Jobs returns to Apple in 1997.
- 1986–2006 Buys Pixar computer animation company. Pixar produces *Toy Story* in 1995. When Pixar goes public, Jobs's net worth rises to \$1.5 billion. Later, Disney buys Pixar, making Jobs a major Disney shareholder.
- 1991–1998 Marries Laurene Powell in 1991 at Yosemite National Park. By 1998 they have three children: Dean, Erin, and Eve.
- 1998–2010 Jobs is back at Apple overseeing launches of the iMac in 1999, the iPod in 2001, iTunes Music Store in 2003, the iPhone in 2007, and the iPad in 2010.
- 2011 Dies of cancer on October 5 at age 56.



Anton_Ivanov / Shutterstock.com

Name _____

Steve Jobs



Words to Know

Steve Jobs's Early Years

selfies
computer tablet
perfecting
Silicon Valley
credited
“get hip to”
kindled
founder
justify
tuition
audited
calligraphy
typefaces
proportionally
fonts

Steve Jobs, Computer Pioneer ■■■

Words to Know

A Career of Ups and Downs

affected
dramatically
aka
computer boards
corporation
incorporated
byte
equivalent
investor
chief executive officer
development
publicity
net worth
colleagues
executive

Steve Jobs, Computer Pioneer ■■■■

Words to Know

Steve Jobs Bounces Back

CEO
executive
cofounded
computer animation
ventures
blockbuster
innovative
productive
thriving
launched
epoch
complimentary
remarks
time frame

Steve Jobs, Computer Pioneer ■■■■■



Steve Jobs's Early Years

Do you love to text your friends and take selfies with your phone? Do you listen to music on a portable music player or use a computer tablet to do Internet research? If so, you should thank Steve Jobs—he was one of the people responsible for perfecting the technology you love.

Growing Up in Silicon Valley, California

Steven Paul Jobs was born in San Francisco, California, on February 24, 1955. Paul and Clara Jobs adopted him soon after his birth. They moved to Mountain View, California, a suburb in Santa Clara County. Today this area is also known as "Silicon Valley." Steve was a smart boy, perhaps too smart for his own good. School bored him, so he didn't pay attention in class. His teachers did not find him easy to handle. Years later, Steve credited his teacher Imogene Hill with changing his attitude: "She taught an advanced fourth grade class and it took her about a month to get hip to my situation." So Ms. Hill gave Steve more challenging projects and rewarded him for completing them. Jobs said, "That really kindled a passion in me for learning things! I learned more that year than I think I learned in any other year in school."

Young Steve loved working with his dad in their garage workshop. He especially loved taking mechanical and electrical devices apart. He and his dad would figure out how they worked, fix them, and put them back together. Soon Steve started projects of his own. When he was 13, he phoned an important business owner in the neighborhood, Bill Hewlett. (Bill was a founder of Hewlett-Packard, a huge company that produced computer products.) Steve asked Mr. Hewlett for some free parts.

Reed College, Atari, and Apple

In 1972 Steve entered Reed College in Oregon. He was 17 years old. After one semester there, Steve decided that he wasn't interested enough in his required courses to justify the cost of tuition. He withdrew from Reed; yet he continued to hang around the campus. He worked and audited classes that interested him, such as calligraphy. Jobs said later that if it hadn't been for that calligraphy class at Reed, "the Mac would have never had multiple typefaces or proportionally spaced fonts."

After working for the video-game company Atari for a short time, Steve began building computers with his friend Steve Wozniak. In 1976 they founded Apple Computer. And the rest is history!



Wozniak and Jobs building a computer.

Steve Jobs's Early Years

Fill in the circle by the correct answer. Then answer questions 3, 4, and 5.

1. In paragraph 2, what does “get hip to” mean?
 - (A) improve
 - (B) understand
 - (C) dislike
 - (D) explain

2. The author credits Steve Jobs for _____.
 - (A) inventing computers
 - (B) inventing the term “texting”
 - (C) his huge contribution to technology
 - (D) an important contribution to education

3. Why do you think Steve’s teacher in grade 4 had more success than his other teachers?

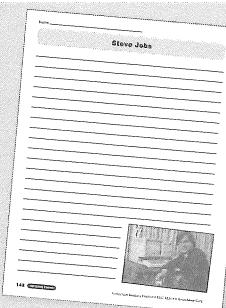
4. What character traits of Steve’s does the article reveal?

5. What would you do if you did not understand the last sentence in paragraph 4?

Write About the Topic

Use the Writing Form to write about what you read.

Answer the questions Who?, What?, Where?, When?, and How? to summarize the text.



A Career of Ups and Downs

Steve Jobs, cofounder of Apple computers, had major ups and downs in his career. He dropped out of college after only one semester. Yet, he started a computer company and became a millionaire when he was in his early twenties. When he was 30, his own company pushed him out.

Steve and Woz Incorporate Apple Computer

In 1971, when he was 16, Steve started a new friendship that affected his life dramatically. He met Steve Wozniak, aka "Woz," an engineering student in college. Woz was five years older than Jobs was. Despite the age difference, they had a lot in common. They were both brilliant guys who loved building mechanical and electrical devices.

After Jobs left college, he and Woz started building computer boards together. By 1976 they had developed one that worked pretty well. They called it the Apple I. Keep in mind that, at that time, no one except a few hobbyists had smaller, homemade computers at home. Most computers were huge, bulky machines. Only wealthy businesses, universities, and government institutions owned them. There was no Internet.

In April of 1976, with the help of a friend who knew what a corporation was, Woz and Steve incorporated Apple Computer. A store in their Northern California neighborhood, The Byte Shop, ordered 50 Apple I boards. The store paid them \$500 for each one. Steve and Woz set up a workshop in the Jobs family's garage, where they built every board. Soon they began charging \$666.66 for each Apple I. (This is equivalent to about \$2,800 in today's money.)



The Apple I computer

Ed Lithman

Apple Becomes a Big Success

In 1977, Apple acquired a major investor. Steve and Woz hired a professional chief executive officer (CEO). The company invented the Apple II, a newer, better form of the Apple I, and it sold well for many years. From the beginning, Woz focused on research and development; Jobs was more involved in publicity and sales. By 1980, Jobs's net worth rose to \$200 million. He was only 25 years old.

Many of Jobs's former colleagues believe that he changed when he went so quickly from an often-broke young man to a fabulously wealthy, powerful business leader. They claim that he became insensitive to other people's needs and feelings. Perhaps this is a major reason why, when Jobs was only 30, his handpicked CEO, John Sculley, and the Apple board of directors stripped him of all executive power. Despite this personal and professional setback, Steve Jobs later rose to even greater heights of business success and happiness in his personal life.

A Career of Ups and Downs

Fill in the circle by the correct answer. Then answer questions 3, 4, and 5.

1. Which two words are synonyms?
 - (A) incorporate, disconnect
 - (B) affected, transformed
 - (C) equivalent, unequal
 - (D) colleagues, opponents

 2. The last paragraph implies that Steve Jobs _____.
 - (A) chose John Sculley to be Apple's CEO
 - (B) pushed his friend Woz out of Apple Computer
 - (C) never forgave his friend Woz for firing him from Apple
 - (D) had far more power than CEO John Sculley had

 3. What was one major turning point in Jobs's career?
-
-

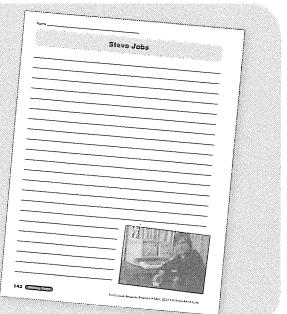
4. What can you infer from this article about Jobs's professional life?
-
-

5. Speculate how Woz may have reacted when Jobs was "stripped...of all executive power."
-
-

Write About the Topic

Use the Writing Form to write about what you read.

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Steve Jobs Bounces Back

In 1983, Apple Computer cofounder, Steve Jobs, hired a new CEO for the company. Jobs persuaded Pepsi's CEO, John Sculley, to leave Pepsi and take over at Apple. Yet in 1985, the two had a serious disagreement about business decisions. Apple's board of directors sided with CEO Sculley. They stripped Jobs of all executive power at Apple. This included Jobs's position as head of the Macintosh project. In 2015, Jobs's longtime friend Steve Wozniak, the man with whom Jobs had cofounded Apple, described the situation this way:

"[Steve] failed with...the Macintosh (trying to rush to his greatness before having a sellable product)...Steve Jobs wasn't pushed out of the company. He left. I supported him in his belief that he was made to create computers. But up until then he'd only had failures at creation..."

Downs and Ups with NeXT and Pixar

Wozniak was certainly there at the time. His opinions may be completely accurate. However badly Steve Jobs felt, though, and however wrong he might have been, he did not just sit around feeling sorry for himself. By the end of 1986, he had formed a new computer company, NeXT, and bought a computer animation studio, Pixar, from *Star Wars* creator George Lucas.

Unlike Apple in the 1970s, Jobs's two new business ventures were not overnight successes. Pixar did not produce its first blockbuster, *Toy Story*, until 1995. Despite partnerships with IBM and Canon, NeXT could not manage to produce a computer that was inexpensive enough to sell to universities, its target market. Yet when Pixar went public soon after *Toy Story*'s release, it made Jobs a billionaire. And NeXT engineers invented innovative technology so valuable that Apple bought NeXT in 1997 for \$400 million.

Steve Jobs returned to Apple and presided over a productive, thriving era at the company until he died of cancer in 2011. Life-changing products that Apple launched during this epoch include the iPod in 2001, iTunes Music Store in 2003, the iPhone in 2007, and the iPad in 2010.

After Jobs died, Wozniak made complimentary remarks about him, as well as critical ones. In 2014 Woz said: "Steve Jobs was a very different personality over the time frame I knew him. I met him when he was in high school. And, back then, we played jokes and pranks on each other." Wozniak also said: "We never had a fight or an argument—we were always friends. Near his death, he was calling and talking about the old days, and how much fun it was, and did we ever think it was going to get this far?"

