

About the Book

Text Type: Nonfiction/Biography Page Count: 24 Word Count: 2,195

Book Summary

The Legacy of da Vinci is an informational book about the life of Leonardo da Vinci. Although he might be best known for artistic works such as *The Mona Lisa* and *The Last Supper*, da Vinci was also an avid inventor. His lifelong curiosity and observation of the world around him led him to develop ideas for such objects as clocks, cameras, helicopters, hydraulics, and hang gliders. These ideas, which resulted from his pursuit of knowledge, continue to fascinate people today. Photographs support the text.

About the Lesson

Targeted Reading Strategy

- Ask and answer questions

Objectives

- Use the reading strategy of asking and answering questions while reading
- Identify elements of a biography
- Identify and use prepositional phrases within sentences
- Understand how the suffixes *-ful* and *-less* change the meaning of words

Materials

Green text indicates resources available on the website

- Book—*The Legacy of da Vinci* (copy for each student)
- Chalkboard or dry erase board
- [KWLS, elements of a biography, prepositional phrases, suffixes worksheets](#)
- [Discussion cards](#)



Indicates an opportunity for students to mark in the book. (All activities may be demonstrated by projecting book on interactive whiteboard or completed with paper and pencil if books are reused.)

Vocabulary

- Content words:

Story critical: *apprentice (n.)*, *commissions (n.)*, *guild (n.)*, *innovative (adj.)*, *novelty (n.)*, *Renaissance (n.)*

Enrichment: *anatomical (adj.)*, *camera obscura (n.)*, *hydraulic (adj.)*, *Industrial Revolution (n.)*, *prototypes (n.)*, *replica (n.)*

Before Reading

Build Background

- Show students a picture of *The Mona Lisa*. Discuss with students that they already know about this piece of artwork. Ask students to identify the artist and what they know about him.
- Create a KWLS chart on the board and hand out the [KWLS worksheet](#) to students. Review or explain that the *K* stands for knowledge we know, the *W* stands for questions we want to have answered, the *L* stands for the knowledge we learned, and the *S* stands for what we still want to know about the topic. Fill in the first section (*K*) with information students already know about Leonardo da Vinci. Have students complete the same section of their KWLS worksheet.

- Ask students what they would like to know about Leonardo da Vinci. Have them fill in the second section (W) of their worksheet. Write shared questions on the class chart as an example.

Preview the Book

Introduce the Book

- Give students their copy of the book. Guide them to the front and back covers and read the title. Have students discuss what they see on the covers. Encourage them to offer ideas as to what type of book it is and what it might be about.
- Show students the title page. Discuss the information on the page (title of book, author's name, illustrator's name).

Introduce the Reading Strategy: **Ask and answer questions**

- Ask students to turn to the table of contents on page 3. Remind them that the table of contents provides an overview of what the book is about. Ask students what they expect to read about based on the section titles in the table of contents. (Accept all answers that students can justify.)
- Model how to use the table of contents to ask questions.
Think-aloud: I can use the table of contents to think of questions I'd like to have answered about Leonardo da Vinci. For example, one section is titled "Multitalented". I know that the prefix multi- means many. So, the word multitalented must mean talented in many ways. I know from the Build Background discussion that Leonardo da Vinci was a very talented artist. This section title makes me wonder what other talents Leonardo had. I think this is a good question. I'll write it in the W section of the KWLS chart.
- Have students preview the rest of the book and look at the photos, captions, covers, table of contents, and index. Ask them to think of other questions about Leonardo da Vinci based on this information. Have them write these questions in the W section of their KWLS worksheet.
- Invite volunteers to share their questions aloud. Write these questions on the class KWLS chart on the board.
- As students read, encourage them to use other reading strategies in addition to the targeted strategy presented in this section.

Introduce the Comprehension Skill: **Elements of a biography**

- Ask students to explain the difference between a biography and an autobiography (biography: the story of a person's life written by someone else; autobiography: the story of a person's life written by that person). Explain that this book is a *biography*. A biography includes information about the person's *personality*, *accomplishments*, and *influence* on the world.
- Write the words *Personality*, *Accomplishments*, and *Influence* in a three-column chart on the board. Discuss with students the meaning of each of these words (*personality*: the qualities that makes each person unique; *accomplishments*: success achieved through practice or training; *influence*: an effect on someone or something).
- Have students turn to page 4. Read the first section, "A Class Clown Without a Class" aloud while students follow along silently. Model identifying elements of a biography.
Think-aloud: As a child, Leonardo was very curious. He often played pranks on people to see their reactions. His talents in math, art, and music were equal to those of adults. On the basis of this information, Leonardo appeared to be a curious and uniquely talented child. This information tells about Leonardo's personality. As I read, I can organize the information about Leonardo into the categories accomplishments, influence, and personality. By categorizing the information this way, I know I will understand more about him and the events of his life.
- Invite students to identify the information that tells about Leonardo's personality (he was curious, intelligent, uniquely talented). Write this on the chart under the heading *Personality*.
- Based on this information, ask students to describe how Leonardo's personality as a child might have influenced his later accomplishments (his curiosity might lead him to discover and invent many things, and so on).

Introduce the Vocabulary

- Remind students of the strategies they can use to read words they don't know. For example, they can use what they know about letter and sound correspondence to figure out the word. They can look for base words, prefixes, and suffixes.
- Explain to students that they can use context to identify the meaning of unfamiliar words. Have students find the bold word *apprentice* on page 7. Have them read the sentence that contains this word. Point out the phrase or assistant that appears after the bold word. Explain that phrases such as this help to explain the meaning of bold words.
- Explain to students that they won't always find context clues to help them determine the meaning of an unfamiliar word. Have a volunteer read the definition for *apprentice* in the glossary. Have students follow along on page 7 as you read the sentence in which the word *apprentice* is found to confirm the meaning of the word.
- Repeat the process with other content vocabulary before students begin reading.

Set the Purpose

- Have students read the book to find answers to their questions about Leonardo da Vinci. Have them write what they learned in the *L* section of their KWLS worksheet.

During Reading

Student Reading


- **Guide the reading:** Have students read from page 6 to the end of page 13. Remind them to read for information about Leonardo da Vinci that will answer questions on their KWLS chart. Encourage students who finish early to go back and reread.



When they have finished reading, have students circle any questions on their KWLS worksheet that were answered and underline the information in the book that answers those questions.

- Model answering a question on the KWLS chart and filling in additional information.
Think-aloud: *I wanted to know what other talents Leonardo possessed. I found out that in addition to being a well-respected artist, he was also a talented problem-solver. I read that he learned from his uncle to ask questions and seek answers. He invented many things that were solutions to his problems. These characteristics reflect da Vinci's personality. I'll write what I learned in the L column of my KWLS chart. I also read how Leonardo sketched many of his ideas and that these sketches are still in books today. Some of his ideas, such as a clock and a helicopter, are devices that people currently use. I wonder what other ideas da Vinci had that people use today. I will write this question in the W column of the KWLS chart.*
- Have students write on their KWLS worksheet the answers to their questions and any additional questions they generated as they read. Invite students to share this information aloud. Record shared responses on the class KWLS chart.
- Ask students to identify da Vinci's personality, accomplishments, and influence from the discussion and their reading (personality: problem-solver, creative; accomplishments: invented several devices to solve problems, including a lamp, improved eyeglasses, a wrench, and a clock; influence: his sketches are still used in books today).
- Introduce and explain the elements of a **biography worksheet**. Write this information on the chart on the board, and have students write the information on their worksheet. Discuss with students the words from the book that support the information on the chart.
- Discuss how Leonardo's personality might have influenced his accomplishments. Facilitate the discussion with questions such as: *How would you describe Leonardo's personality? What characteristics of his personality might have influenced him to excel in so many different areas of life?*

- **Check for understanding:** Have students read from page 14 to the end of page 17. Have them write answers they found while reading in the *L* section of their KWLS worksheet. Invite them to share the information they learned and the additional questions they generated as they read the book. Write this information on the class KWLS chart on the board.
- Have students discuss with a partner information from the section that reflects da Vinci's personality and accomplishments. Have them write this information on their elements of a biography worksheet. Invite students to share this information aloud.
- Have students read the remainder of the book. Remind them to look for answers to their questions and use the information learned to identify the elements of a biography (personality, accomplishments, and influence on others). Encourage students to write new questions they might have on their worksheet as they read.

 Have students make a question mark in their book beside any word they do not understand or cannot pronounce. Encourage them to use the strategies they have learned to read each word and figure out its meaning.

After Reading

- Ask students what words, if any, they marked in their book. Use this opportunity to model how they can read these words using decoding strategies and context clues.

Reflect on the Reading Strategy

- Have students circle the questions on their KWLS worksheet that were answered from the reading and underline the information in the book that answers those questions. Then have them write answers they found while reading on their KWLS worksheet.
- **Think-aloud:** *I wanted to know whether there were other devices da Vinci created that are used by people today. I learned that several models from his notebooks have been built, based on the notes in his notebooks. He also thought of an early model of a camera, and he created thousands of drawings of the human body that contributed to scientific studies.*
- Invite students to share the information they learned and the additional questions they generated as they read the book.
- Discuss with students how asking questions before and during reading, and looking for the answers while reading, helps them remember and enjoy what they read.
- Point out to students that all of their questions may not have been answered in this text. Brainstorm other sources they might use to locate additional information to answer their questions. Invite students to fill in the final section (*S*) with information they would still like to know about Leonardo da Vinci.

Reflect on the Comprehension Skill: **Fact and opinion**

- **Discussion:** Discuss how many of da Vinci's inventions were unlike anything that people living in the 1400s could even imagine, and how his passion for extensive observation gave him the ability to see things in a very different light.
- Remind students that because his notebooks were lost, many of his innovative ideas weren't heard of until over 300 years later, during the Industrial Revolution. Many of his creations had been reinvented and the credit had been given to others. Ask students what they think about this outcome.
- **Independent practice:** Have students complete the elements of a biography worksheet. When they have finished, discuss their answers.
- **Enduring understanding:** In this book, you learned how Leonardo da Vinci's uncle and a village priest provided experiences that fostered his thirst for knowledge. Now that you know this information, do you think experiences are important in shaping a person's life? Why or why not?

Build Skills

Grammar and Mechanics: **Prepositional phrases**

- Review or explain that *prepositions* are words that show a relationship between things. They provide information about the *location* (*inside, outside, and so on*), *direction* (*to, under, over, and so on*), and *time* (*after, before, during, and so on*) when something happens. Prepositions also can explain the relationship between two words (*about, with, and so on*).
- List common prepositions on the board, such as: *about, after, before, below, between, during, for, in, of, out, over, through, until, and with*.
- Write the following sentence on the board: *Leonardo painted a monster on a wooden shield*. Write the sentence on the board. Cover the phrase *on a wooden shield*. Reread the sentence without the phrase. (*Leonardo painted a monster*.)
- Ask students to explain what the phrase *on a wooden shield* elaborates (the location of where Leonardo painted a monster).
- Point to the phrase *on a wooden shield*. Have students identify the preposition in the phrase (*on*). Explain that a *prepositional phrase* is a group of words beginning with a preposition and ending with a noun or pronoun that elaborates on the location, time, or direction of something.
- Ask students to suggest another prepositional phrase to elaborate on when or where Leonardo painted a monster (*before nighttime, in a darkened room, and so on*).
- Choose one of the prepositional phrases and add it to the sentence on the board after the word *shield*. Read the new sentence aloud. Explain to students that a sentence can contain more than one prepositional phrase.
- **Check for understanding:** Have students write the following sentence on a separate piece of paper: *The artists paint*. Have them add a prepositional phrase to the sentence. Invite students to share their sentences aloud.
- **Independent practice:** Introduce, explain, and have students complete the [prepositional phrases worksheet](#).

Word Work: **Suffixes -ful and -less**

- Write the following sentence on the board: *The design of the hang glider resulted in a successful flight*. Point out the word *successful*. Ask students to explain the meaning of the word.
- Erase the suffix *-ful* from the end of the word *successful*. Ask students to explain how the meaning of the word changed.
- Write the suffix *-ful* on the board and discuss its meaning (full of). Ask students to explain the meaning of the word (full of success).
- Write the following sentence on the board: *His enormous contribution to scientific studies in the area of anatomical illustrations alone is priceless*. Point out the word *priceless*. Ask students to explain the meaning of the word.
- Erase the suffix *-less* from the end of the word *priceless*. Ask students to explain how the meaning of the word changed.
- Write the suffix *-less* on the board and discuss its meaning (without). Ask students to explain the meaning of the word (without a price).
- **Check for understanding:** Write the words *care* and *time* on the board. Have students identify the meaning of each base word. Then have them add the suffix *-ful* to the word *care* and add the suffix *-less* to the word *time* (*careful, timeless*). Have students identify how the meaning of each word changed. Invite them to use each new word in an oral sentence.
- **Independent practice:** Introduce, explain, and have students complete the [suffixes worksheet](#).

Build Fluency

Independent Reading

- Allow students to read their book independently. Additionally, allow partners to take turns reading parts of the book to each other.

Home Connection

- Give students their book to take home to read with parents, caregivers, siblings, or friends. Have students share with someone at home what they learned about Leonardo da Vinci.

Extend the Reading

Writing Connection

Have students use the Internet to further research one of the following people da Vinci influenced: Oscar Wilde, William Butler Yeats, Albert Einstein, or Andy Warhol. Have them write a research paper identifying the major contributions of that individual during his life and evaluate his impact on history. Allow time for students to present their papers orally.

Social Studies Connection

Review Leonardo da Vinci's birthplace in Italy. Point out that the name *da Vinci* means *of Vinci*. Have students locate Italy on a map. Have them use the Internet to research the village of Vinci in Italy. Ask students to locate information about Vinci, such as customs, traditions, and cultural characteristics. Have them write a brief report about Vinci, Italy, that contains this information.

Skill Review

Discussion cards covering comprehension skills and strategies not explicitly taught with the book are provided as an extension activity. The following is a list of some ways these cards can be used with students:

- Use as discussion starters for literature circles.
- Have students choose one or more cards and write a response, either as an essay or as a journal entry.
- Distribute before reading the book and have students use one of the questions as a purpose for reading.
- Cut apart and use the cards as game cards with a board game.
- Conduct a class discussion as a review before the book quiz.

Assessment

Monitor students to determine if they can:

- consistently ask relevant questions about the topic prior to and during reading; locate answers to their questions in the text and understand that not all answers are found in one source
- identify elements of a biography; categorize information by element during reading
- correctly identify and use prepositional phrases during discussion and on a worksheet
- identify how suffixes alter the meaning of words; correctly use the suffixes *-ful* and *-less* during discussion and on a worksheet

Comprehension Checks

- **Book Quiz**
- **Retelling Rubric**