

# EDUCATORS' GUIDE

## MAGIC TREE HOUSE®

# MERLIN MISSIONS

### ***Monday with a Mad Genius* and *Leonardo Da Vinci:***

*A Nonfiction Companion to Monday with a Mad Genius*



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Grades: 2-5  
F&P: N • Lexile: 590L

#### **ABOUT *Monday with a Mad Genius***

In *Monday with a Mad Genius*, Jack and Annie travel to Italy in the Renaissance, a time when every new morning brought with it the promise of artistic and scientific wonder. There, they meet none other than Leonardo da Vinci! Now available in paperback with all-new backmatter full of activities.



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#### **ABOUT *Leonardo da Vinci:***

*A Nonfiction Companion to Monday with a Mad Genius*

How did Leonardo da Vinci become interested in flight? What are some of his most famous paintings? Do his scientific ideas measure up to what we know today? Find out the answers to these questions and more in *Leonardo da Vinci: A Nonfiction Companion to Monday with a Mad Genius*, Jack and Annie's guide to the mad genius himself.

## PRE-READING ACTIVITIES

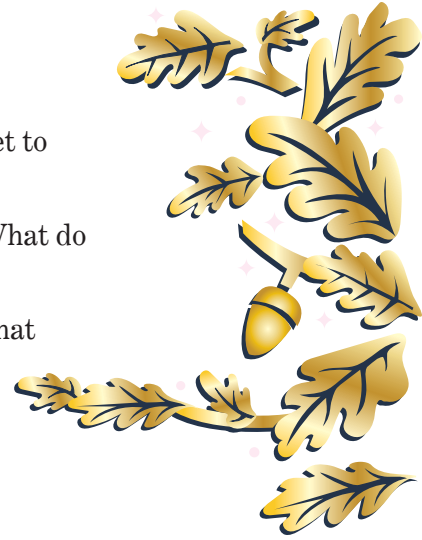
Read the prologue and explain what kinds of adventures Jack and Annie have been on before. Will this be a mythical journey or a historical one? What is the difference between the two?

Have you ever read a Magic Tree House book before? How does the magic in the story work? Do Jack and Annie ever get in trouble at home for their adventures far away? How do they move across time and place? If you could go anywhere in history, where would you land?

What is a “mad genius”? What does it mean to be a genius at something? Can you brainstorm a list of people who are considered geniuses in the following fields: music, art, history, science, literature? Predict what the children might learn from Leonardo about happiness.

# CLASSROOM CONNECTIONS

## ACTIVITIES FOR *Monday with a Mad Genius*



### Questions for Class Discussion

What are Jack and Annie trying to discover for Merlin? What do you think is the secret to happiness? What makes you happy?

How do Jack and Annie find Leonardo? Why is it more difficult than they imagined? What do they learn along the way?

Leonardo gives the siblings a quick and easy answer about the secret to happiness. What does he say? Do you agree with him? What would be great about being famous? What would not be that terrific about it?

Where does Leonardo get his ideas for his paintings and experiments? Where do you get your own best ideas? What does he study when he's out in the village?

How does Leonardo try to improve the drying time of his battle scene fresco? What happens? How does he react to this event? How would you feel if something you had created for hours was ruined?

Describe Leonardo's home. What do Jack and Annie discover about their new friend? What is the most interesting fact you learned about this great Renaissance man?

Some of Leonardo's ideas seem silly. Why do Jack and Annie know so much more about certain topics than this very learned scholar? What do you think scientists will discover in the next 500 years?

What is the Great Bird? Describe what happens when Leonardo tries to take it out for a test. Why doesn't it work yet? How do Jack and Annie make him feel better about his failures?

In the end, Leonardo changes his mind about the true secret of happiness. What does he say is the most important thing about being happy? Do you agree? Why or why not?

Who is sitting for a portrait with Leonardo? Why won't she smile for him? How does Annie help resolve the situation?

## ACTIVITIES FOR *Leonardo da Vinci:* *A Nonfiction Companion to Monday with a Mad Genius*

### Vocabulary

Ask students to identify unfamiliar words and write definitions taking clues from the context of the Fact tracker. Such words may include: Renaissance, patron, palazzi, cathedral, dome, merchant, wares, utensils, guild/trade, apprentice, reputation, Latin, anatomy, dissect, botanist, fossil, sfumato, basilica, architect, musician, statesmen, mathematician, philosopher.

## DISCUSSION QUESTIONS/WRITING PROMPTS

### Knowledge

Where is Italy? Where is Florence? Can you find the places on a map?

What did Leonardo da Vinci's name mean? (Leonardo from Vinci)

What did an artist's apprentice do? (An apprentice would learn to draw, paint and work with silver, bronze, and wood. Some time was spent making bells and instruments, mixing paint, cleaning, and doing other chores.)

Rumor has it that Leonardo was trying to cloak (or hide) his thinking by writing backward in his notebooks. What do experts believe was the reason he wrote backward (so the words can only be read with a mirror) today? (He

was left-handed and writing backwards allowed the ink not to smear on the paper.)

## Comprehension

How did Leonardo intimidate Verrocchio? How did Verrocchio respond? (The book reports that once the teacher saw Leonardo's first painting, he realized that the skills of the student surpassed the skills of the teacher. It was said that Verrocchio never painted again.)

What does an inventor do? What do inventors create today?

### HOW WERE LEONARDO'S PAINTINGS DIFFERENT FROM OTHER ARTISTS OF THE TIME PERIOD?

- He used deep, rich colors. Artists in Leonardo's time didn't always consider deep colors.
- He found ways to show depth. Objects at the front of the painting look closer than the background does.
- His paint choices made a painting seem more natural or true to life.
- He experimented with different materials to seal a painting throughout his career. Not all of them worked.

### WHAT HAPPENED DURING THE RENAISSANCE PERIOD?

- Greek and Roman architecture became popular again.
- Greek and Roman writings were read.
- People focused on science, art, music, and books. As a result, hospitals, libraries, and universities were built.
- Large cities became powerful.

Why were most of Leonardo's designs not actually built? (Lack of money, skills, tools, or confidence)

Which of his ideas are used today? (Double-hulled boats, the parachute, a walking bridge in Norway, contact lenses, painting techniques, submarines)

Which of his ideas are similar to things we use today? (The ornithopter, helicopter, glider, scuba equipment, armored tanks)

## Analysis

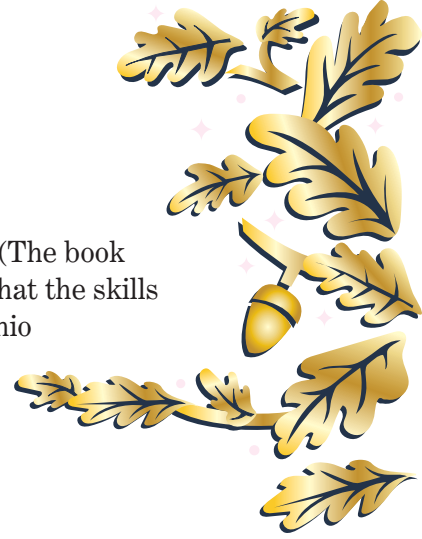
What part of a cathedral do you see from afar? Is there a tall building or focal point that people see from far away where you live?

Leonardo said that he became interested in birds and flight because of an early memory of a bird flying near his cradle. How did you become interested in one of your hobbies or fascinations?

For more independent students: Find someone local who has a specific hobby or interest. Interview them to find out how they became hooked on what they do. (This can also be done via e-mail or over the phone.)

What is the difference between tempera paint and oil paint? Experiment with each material. When would you choose to use one paint over the other?

During the Renaissance period, how did people save information about a person's life? How do we preserve information about people now?



## Application

Are there people today who have names with a specific meaning? Can you give an example of a name that has a specific meaning? This could be a name from a language other than English.

The book describes how Leonardo spent time with his friends and how he spent time with other professionals. How does the way he played or worked compare to group play or work today?

**MORE COMPLEX:** Explain the advantages or disadvantages between then and now.

## Synthesis

Why did people not recognize Leonardo's genius or his contribution to society while he was alive? Are there others who also have been more appreciated after their death than during their life?

## Evaluation

According to his notebooks, Leonardo did not always agree with the popular beliefs of the time. What kinds of things did he disagree with? Leonardo had a choice about how much he would try to convince others that he was right. Do you think he made the right choices during his lifetime? Why do we believe him today if they didn't believe him when he was alive? One example would be the issue of how fossils got to Italy—was it a flood or a reorganization of land?

Da Vinci said, "Always be eager to hear the opinions of others." In many cases, his interest in what others had to say helped him make friends and have lively conversations. How could his statement backfire and cause him problems? Is there another statement that you can think of that could have a positive or a negative affect? Do you think it is wise to use suggestions that could be both positive and negative? Explain your thinking.

War was "bestly madness" according to da Vinci. Why did he choose to make money by painting war scenes? Were his plans effective? Do you agree with his choice?

## More complex: Argue both sides of this issue.

The number of projects Leonardo completed was much smaller than those he started. What does this say about him? Why was he comfortable not finishing projects?

**CURRICULUM:** *Social Studies Arts*

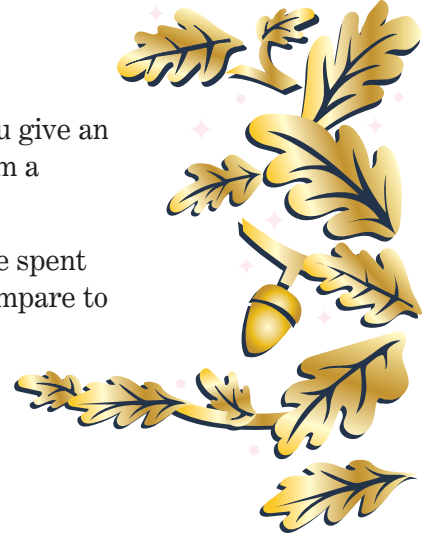
## The Market on Monday

The marketplace in Leonardo da Vinci's time was a busy place. It must have been chaotic and interesting to watch from afar. Have students imagine they were in the marketplace. What might they hear? Have them create a script from the marketplace. Share it with the class.

**SIMPLER:** Have a two-person conversation. Make sure they talk about what kind of work they do and why they are at the market today.

**MORE COMPLEX:** Include three to five characters in the conversation. Make sure it is clear what kind of work they do and why they are at the marketplace today. You may describe the work they do in word or in sound (to make it something the listener figures out).

**MOST COMPLEX:** The script can include multiple characters. They do not all have to be human. If you use animals, make sure we get to hear what they are thinking or seeing. Describe the sights, sounds, smells, and what brought each character to the market today.





## Hire Me!

Have students create an advertisement that Leonardo could have used in order to find a patron.

**SIMPLER:** List five of Leonardo's interests or skills.

**MORE COMPLEX:** Add three of the things Leonardo da Vinci claimed he could do. Include sketches that would catch the attention of a rich patron.

**MOST COMPLEX:** Instead of an advertisement, create a resume, speech, or brochure that Leonardo could have used when seeking a patron. Include information about his skills, interests, knowledge, personality, and travels, if you'd like.

As a teacher, you might need to assist students in identifying interests, skills, or projects. Here are a number of specifics from the Fact Tracker:

### Interests

art, designing buildings and cities (architecture), inventing, flying, science, anatomy, math, Latin, music, cooking, telling jokes, surprising people

### Skills

**ARTIST:** sketching, sculpture, painting

**INVENTOR:** flying machines, canals, buildings, bridges, perfect city, contact lenses, shoes for walking on water, diving suits, life preservers, webbed swimming gloves, armored cars, the double-hulled boat, the submarine, paddle boat, crossbow, triple barrel cannon, a slingshot for cannons, multi-barrel machine guns, missiles, grenades, the parachute, ornithopter, helicopter, glider

**MUSICIAN:** designed instruments, played the lyre, sang, wrote music

**SCIENTIST:** studied anatomy, rocks, fossils, plants, water pressure, storms and weather, the moon and its effect on the tides

### TEACHER

### COOK

*Prepared by Beth Fawley, the 2006 Magic Tree House Educator of the Year, who is the K-12 Gifted and Talented Coordinator at Columbia Heights Public Schools in Minnesota.*

