Leonardo da Vinci, The Renaissance Man

"Master, come look at this."

Verrocchio, master painter, sculptor, and goldsmith, moved across the room to his current painting. When he saw the picture, he gasped. Like most master painters, Verrocchio took on young apprentices to help him with his work and to educate the next generation of artists. He would often do the main sections of the painting and leave details of landscape or minor figures to his apprentices. He had just completed a baptism of Christ and left the angels surrounding the main subject to young Leonardo da Vinci. Verrocchio was stunned when he saw Leonardo's angel. It was more alive than anything he had ever painted. Verrocchio thought to himself, "I won't be deeply saddened when this pupil leaves."

Fourteen-year-old Leonardo da Vinci arrived in Florence in 1466, at the height of the Renaissance. Although he had grown up in the small town of Vinci, his father sent him to the nearby city for education. For eight years, Leonardo studied under Verrocchio and astonished his master with his ability to look closely at life and capture it on canvas. At the age of 20, Leonardo left Verrocchio's workshop and began to work on his own. He produced some of the world's best-known paintings. For instance, his Mona Lisa, though much faded from its original bright colors, still seems alive and continues to mystify viewers with her enigmatic smile.

Leonardo, however, was more than a great painter—he sought the secrets of life. We know a great deal about what went on in Leonardo's mind, thanks to his notebooks. Almost 5,000 pages survive. In them, we learn that he wanted to know how things moved. He drew detailed studies of birds in flight, carefully drawing the bones, muscles, and tendons of the wing. He was also interested in engineering and mechanics. Plans for irrigation schemes, central heating, machine guns, submarines, tanks, and life preservers survive. His interest in flight led him to design airplanes and parachutes. Although Leonardo's helicopter would not have flown, many of his other discoveries would have worked if they had been built. His desire to know also led him deep into the study of botany, geology, and astronomy.

Leonardo's determination to look closely at the physical world and learn only from what he could see was a new way of gaining knowledge. At the time, when thinking people looked at nature and tried to understand it, they relied on ancient authorities. For example, medical doctors relied on the theories of Aristotle, who lived 1,800 years before the Renaissance. With Aristotle's works to support them, doctors believed that the human body's health was maintained by the balance of the four humors. These were hot, cold, wet, and dry. Sickness occurred when one of these humors dominated the rest. The prospect of actually cutting open a cadaver to see how the body worked as medical students do today would have been greeted with horror by a fifteenth-century physician. Leonardo had no such
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qualms, however, and dissected at least 30 cadavers in order to understand human anatomy.

He also tried to understand the nature of paint. Disastrously, Leonardo experimented with new ways to mix and apply pigments. At first, his results were startling. Artists from all over Italy came to admire the colors in his masterpiece, the Last Supper. Almost at once, however, it began to flake away. Many of his paintings have completely disappeared, and the Last Supper as seen today is a shadow of its former breathtaking beauty. Innovation and experimentation always require risks, and Leonardo was never one to balk at the unknown.

At other times, it wasn't the danger of the experimentation but bad luck that haunted Leonardo. His clay form for a gigantic bronze statue of the Duke of Milan, Francesco Sforza, was used as target practice by invading French soldiers before it could be cast in bronze. His other employers were often uninterested in his ideas. Sadly, the works Leonardo left behind are few. About a dozen finished paintings, parts of statues, and his notebooks are all that remain. He spent the last four years of his life as guest of the King of France. From his notebooks, we can see that he thought of himself as a failure. "Tell me if anything at all was done..." was written on page after page.

If success is judged by quantity of works completed, then perhaps Leonardo was a failure. If success is judged by innovation, however, then he can rank at the top. He left to the world three discoveries. First, we can command nature when we understand her. Second, we must learn about nature by observation. Third, the physical world cannot be understood by relying solely on all-encompassing theories, but rather by close observation of detail. It is the details that ultimately test the truth of a theory.

In an age that believed that human beings had endless potential for growth, Leonardo came closest to realizing that ideal. His curiosity was boundless.

Activities


2. Notice the lines that da Vinci used to create an illusion of depth on a flat surface in his Last Supper. Where do the lines converge? Why did he pick this point?

3. Look at the section on Aristotle's ideas in Philosophy for Beginners by R. Osborne.
Challenges

1. Who was Leonardo's teacher? ____________________________

2. How did Leonardo's teacher know that he had a talented pupil? ____________________________

3. What are the names of some of the best-known paintings in Western civilization painted by Leonardo? ____________________________

4. What surviving written source tells us about the way Leonardo thought? ____________________________

5. List five of Leonardo's inventions. ____________________________

6. What was new about the way Leonardo gained knowledge? ____________________________

7. What did medieval doctors believe caused illness? ____________________________

8. Which of Leonardo's experiments ended disastrously? ____________________________

9. Where did Leonardo spend his last years? ____________________________

10. What three discoveries did Leonardo leave to the world? ____________________________
Points to Ponder

1. Why is it necessary to observe nature closely in order to understand it?

   
   
   
   

2. Do you think that Leonardo's careful observation of the world helped him to paint? Explain.

   
   
   
   

3. How was Leonardo an ideal Renaissance man?

   
   
   
   

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