FAMOUS ARTISTS: LEONARDO DA VINCI (1452-1519)
Inventions

Supplies Needed:
* "Mona Lisa" framed print
* 8 ½ " x 11" white photocopy paper from teachers’ workroom
* Students will need pencils and a hard cover book to use as a portable desk
* A fairly large item from home that has visible gears such as a tricycle or bicycle *
* Laminated cards from supply box (17 total)
* Hand mirrors from supply box (for examining backwards writing)
* Master of the handwriting and alphabet handout
* First Impressions: Leonardo da Vinci, by McLanathan- on shelf in art closet

Reference Books
* The Unknown Leonardo, Ladislao Reti
* The Hidden Leonardo, Marco Rosci
* The Life and Work of Leonardo da Vinci, Sean Connolly
* Leonardo Da Vinci, John Malam
* Leonardo Da Vinci Renaissance Genius, Barbara O’Connor
* Leonardo Da Vinci The Complete Paintings, Pietro C. Marani

AHEAD-OF-TIME NOTE: you will need to bring in a bicycle for the art project (or some other item with large gears etc.) In addition, please make copies of the master “Famous Artist Series” note for the students to take home as well as the handwriting handout.

Ask for volunteers to hold cards, 13 total, that represent Da Vinci’s areas of expertise at the front of the room or in a circle so everyone can see: Inventor, poet, musician, city planner, engineer, philosopher, military planner, architect, botanist, biologist, mathematician, sculptor, painter. Ask the students what all these terms mean. (Thank the volunteers and ask them to be seated.)

These are all words that can be used to describe Leonardo DaVinci, who lived in the 1400s. Ask students if they know what happened in the year 1492 (Columbus sailed the ocean blue). This will help them understand the times in which DaVinci lived – a long time ago! DaVinci lived in a time called the Renaissance (pronounced ren ah sance). Show laminate #14, Da Vinci self-portrait. The word literally means re-birth. It was a time of amazing creativity in the arts, literature and science.
Before the Renaissance, people believed whatever the scholars told them. If they said the world was flat, then it was. If they said you must wear long, heavy pants in the summer, you did. But a new style of living came to be that allowed people who were not from upper classes to become educated and learn to read. People were encouraged to learn about many different topics, and they looked to the classical Greek and Roman architecture and art as the ideal.

Before the Renaissance, paintings and portraits looked two-dimensional. Most paintings had a religious theme since most artworks were commissioned by people who would donate them to the Church. Subject matter very often was religious, and that continued into the Renaissance. But during the Renaissance, the people featured in paintings became more lifelike, with dark shadows and streams of light surrounding them, and the settings looked like places you might actually have visited — not solid gold backgrounds found in paintings created before the Renaissance.

Leonardo Da Vinci was born to a peasant woman who was not married to Leonardo’s father. The boy’s father was from a well-to-do family from Florence, Italy. When he was two, his father’s family took him to live with his grandfather. During the time Da Vinci lived, being illegitimate meant he could not become a doctor, lawyer or even attend a university. His only formal schooling was from a priest who taught him to read, write and use an abacus.

Da Vinci’s career started in Florence, where he apprenticed by his grandfather to a very well-known painter named Andrea del Verrocchio (pronounced del Ver oke ee oh). An apprentice started by grinding paints, then graduated to making paint brushes, and finally was allowed to help paint the paintings. The Master painter created the composition. Apprentices completed much of the painting work, always using the master artist’s painting style. After working for about seven years with del Verrocchio, Da Vinci was asked to help with a painting called "The Baptism of Christ." Here is a close-up of two angels from the painting. (Show laminate #15 – “The Baptism of Christ). DaVinci’s style was radically different from his Master’s. His angel (figure on the left) was said to be the most beautiful part of the whole picture, mostly because it looked so realistic. It was so smooth you could barely see a brush stroke.

Da Vinci set out on his own when he was thirty years old, and went to the city of Milan. He got the city of Milan to hire him by presenting himself as a military engineer and architect – not as a painter! This was because Milan, like many cities of Italy at the time, was frequently at war, and
DaVinci was sure he could build the city many “advanced” war machines.

In Milan, Da Vinci proposed constructing military weaponry. He designed mortar bombs (shells that exploded with mini balls inside), multi-barreled guns, a large crossbow on wheels, and a device for pushing down ladders that might be used during a siege. Throughout his life, he designed flying machines, weather-forecasting devices, and hundreds of other objects. *(Show laminated pictures #16 and 17, both sides, of his inventions)*

DaVinci’s most famous painting, the “Mona Lisa”, was started while he lived in Milan. He started the painting in 1503 (500 years ago!). It is considered to be the most famous painting in the world, though no one is exactly sure who the woman is. Interestingly, DaVinci continued to travel among cities for the rest of his life and always brought the painting with him. It was one of the few possessions he had with him when he died.

*Show framed print of “Mona Lisa”. Allow for a short discussion of the picture.*

Da Vinci loved to examine plants and animals and people, and often drew pictures of dissected parts. Science and art were inseparable to Da Vinci. He must never have lost the childlike quality that parents hold dear — the never ending questioning of how things work. Questions like, "Where does milk come from? How does food spread through the veins? Where does gravel and stone come from?" were found in his notebooks, written backwards. His notes were always written backwards, right to left. *(On #16, you can clearly see his backwards handwriting. He wrote in Latin – the people in the Italian city-state spoke Italian, not Latin. You can hand out the copies of the handwriting and alphabet now or wait until the project)*

During his lifetime, DaVinci became better known as a hydraulic engineer than painter. As he got older, he became tired of traveling between cities and went to live in a France with a wealthy patron. The combination of things that DaVinci could do and do well truly makes him a worthy symbol for the Renaissance.
Project:

You will need to divide the class in two – with half starting by writing and the other have sketching.

*Place the bicycle in the middle of the floor, upside down if it will balance that way. Ask the students to take a sheet of paper, their pencils and a hard surface (a book will do) and sit in a circle around the bicycle. Da Vinci used gears in many of his inventions. Here, you will have an opportunity to draw a gear the way Da Vinci did. You might only want to concentrate on one section of the gear, or on the whole gear. Look closely, there's the chain, which is placed on the cogs. The chain is looped from the pedals to the rear gear. You decide if you want to draw the entire bike, or just a close-up of the gears. (Ask them to make their drawing as mechanical as possible – like the laminate examples. Leave laminates of drawings with these students so they can further examine them).*

*The second group will start by working on their signature for the same paper they will draw the bike gears on later. Hand out the samples of backward letters. They can use the hand mirrors to check their backwards writing. It’s not as easy as it seems!!*  

*After a time, have the students switch places and those that sketched first will now work on their backward signature, etc.*

**PLEASE LEAVE AT LEAST FIVE MINUTES AT THE END OF THE PRESENTATION FOR THE STUDENTS TO PRESENT THEIR WORK.**
Today in class a volunteer parent presented the works of Renaissance artist, inventor, sculptor and city planner Leonardo DaVinci. The classroom discussion focused on his inventions. Students tried their hand at a science project and a drawing exercise.

Check out the Web site of the DaVinci museum in Vinci, Italy, for more information on DaVinci at:

www.museoscienza.org/english/leonardo or look at the book Pioneers of Science: Leonardo DaVinci by Peter Lafferty. In addition, there are a few childrens’ books which specifically address DaVinci’s works: Dreams, Schemes and Flying Machines by Prestel, Leonardo and The Flying Boy by Holt and Leonardo DaVinci by D. Stanley. The book, Pioneers of Science by Peter Lafferty is a good introduction for students of DaVinci’s many projects.

Sincerely yours,

Art Volunteer