Lesson Title:	**<u>Big Idea & Learning Objectives</u>**
The Da Vinci Code PART TWO	1.Students will employ art vocuabulary to observe and crtiquea a work of art. 2.Students will write to source using a a work of art as their non print text. 3.Students will create simple machines using inspiration and influence from Leonardo da Vinci 4.Students will learn facts and mysteries surrounding Leonardo da Vinci's many inventions.
Content Area & Arts Discipline: **Visual Arts, Language Arts, and Math**	**<u>Overview of the Lesson</u>** Students will learn about Leonardo da Vinci one of the most creative artists to thrive during the Renaissance period in Italy They will learn than he excelled in mathematics, science, music, engineering, and of course visual art. They will look at pictures of several of his inventions and discuss these in terms of simple machines (pulleys, wheel and axel, lever, etc.)
Grade Level: **Fourth or Fifth Grade**	**<u>Procedures</u>** **Engaging Students ("The Hook"):** The teacher will engage the students by showing them a video clip from the movie *Ever After.* The movie is a Cinderella story of sorts where Leonardo da Vinci is in sense the "fairy godmother or godfather rather:)"
Proposed Time Frame: **2 hour (2 class periods)**	**Building Knowledge:** Together students and teacher will define a simple machine. The students will then use a tree map to classify different objects.

Date Lesson Created: **January 2014**	**Modeling the Experience:** •The teacher will show students examples of Leonardo's machines. • The students and teacher will examine the parts in the sketches and will classify the machines under a category of simple machine. •The teacher will choose two simple machines to focus on. •The students will be given supplies to create their own working version of the machine. •The students will use scientific investigation to form hypotheses and analyze each machine •The students will record their results and report them to the class.. •The teacher will then instruct students to look more closely at the artistic aspects of Leonardo's inventions. All of his sketches were artwork in themselves. •Students will become inventors and create their own simple machines using Leonardo's influence and line quality
Lesson Author: **Kristen Roberts**	**Applying Understanding:** •YOU ARE LEONARDO! Tell us about your latest and greatest inventions! Draw a small picture and explain in a short paragraph what it can do.
Room Requirements & **Arrangement:** **classroom** **-tables or desks for drawing and painting**	**Opportunities for Reflection (Closing):** •Students will present their inventions and paragraphs. •Students will classify the inventions of classmates.
Material Equipment: ●**garbage bags** ●**strings** ●**paper cups** ●**large plastic spoon** ● **ruler** ● **marshmallow** ● **pennies,** ●**pencil, scissors, hardback book, and paper.**	**Assessing the Learning:** The teacher will assess the student artwork using a teacher created rubric. The teacher will grade the accompaniment writing according to the six traits.

Resources:

-Leonardo da Vinci's Machines in Motion Teacher's Guide.

Standards & Principles

State Content Standards:

Science 1a: Form hypothesis, predict outcomes, and conduct a fair investigation that includes manipulating variables and using controls.
1c Use drawings, tables, graphs, and written and oral language to describe objects and explain ideas and actions.
2c Investigate the motion of an object in terms of its position, direction of motion, speed
2d Categorize examples of potential energy

W.4.1.b Students will provide reasons that are supported by facts and details

Arts Standards:

Visual Arts
MAI4 Develop perceptual skills and use increased visual arts vocabulary to make judgements while creating and studying works of art
MAI6 Recognize roles, functions, and purposed of artists, works of art, and visual arts careers, in cultures, times, and places. (HC, C)
MAI6a Investigate roles of artists in a variety of cultures and time periods.
MAI8 Know that cultural traditions, historical periods, and aspects of place influence characteristics of works of art and design.

Vocabulary: ● **Renaissance** ● **Leonardo da Vinci** ● **portraits** ● **guide lines** ● **fractions** ● **proportions** ● **sepia tones** ● **antique** ● **argument** ● **code/mystery** ● **controversy**	**Principles of Universal Design for Learning**: I. Provide Multiple Means of Representation 2.5 Illustrate through multiple media. 3.4 Maximize transfer and generalization II.Provide Multiple Means of Action and Expression 6.3 Facilitate managing information and resources 6.4 Enhance capacity for monitoring progress III.Provide Multiple means of engagement 7.2 Optimize relevance, value, and authenticity. 8.3 Foster collaboration and community.
	## <u>Appendix</u> **Extended Learning Activities:** **Ways to Adapt:** --Extensions: -YOU ARE MONA LISA! Write a short paragraph telling usa how you ACTUALLY fee, and what you are ACTUALLY thinking. -MONA LISA PORTRAITS AND CODED MESSAGES -Debate the mysteries of Leonardo -Create other simple machines and discuss "simple machines"