Teaching & Learning Progression

Progression Description (Include Transversal Competencies, Inquiry, Student Choice and Voice, Authentic Connections, and Formative Learning)	Resources (Texts, Audio/ Visual Materials, Digital Tools, Handouts, etc.)

Teaching and Learning Progression for an Extended Lesson on Leonardo da Vinci
(Length: 7 days, 45 minutes per day)
 	
1. Inquiry-Based Learning: Have students seated in small groups for a **Discovering Leonardo** activity. The intent of this learning experience is for students to learn about Leonardo on their own as they observe, read, discuss, and write about Leonardo's accomplishments and insights. Resist the urge to tell students about Leonardo prior to this experience. Just introduce the activity. Each group member picks up a two-sided page with pictures of Leonardo's creations (i.e., painting, invention, city design, sculpture, etc.). They are given 10 minutes to quietly consider answers to the following questions in response to each creation. They are preparing for a short presentation to their group members about what they observed:
  1. What do you observe in this picture?
  2. What is your response to this picture? What do you think and/or feel when you look at it? Please explain your response.
  3. What does this picture tell you about Leonardo da Vinci, the man?
  4. If Leonardo da Vinci were here, what would you want to ask him?
    While they are observing, play Leonardo's musical composition: https://www.youtube.com/watch?v=JX3X_TQf2sA
 	
2. Collaboration: Students are given two minutes each with their table groups to answer the question, ""What did you discover about the man, Leonardo da Vinci, based on your observations of his work?" As one student is sharing his observations, another student on his right is recording the speaker's observation on a piece of poster paper. After two minutes, the next student in the group, moving clockwise, shares her observation and the poster is also passed so that any new observations can be recorded. At the end of the rotation, after everyone in the small table group has shared and after all the group's observations are included on the poster paper, each group displays their posters for the class. Through a gallery walk, each student in the class comments on their peers' posters using post-it notes. They also write down observations from their peers' posters that they want to add to their own. They return to their original group and update and display their posters.
 	
3. Read and Write: Students learn that Leonardo was referred to as a Renaissance Man. On a Webpage there are posted articles about Leonardo. There is also an article defining what it means to be a Renaissance Man. Each student is asked to write an informational essay about Leonardo as a Renaissance man in their ELA notebooks following this prompt: *Based on your observations and the articles your read, explain why Leonardo da Vinci is referred to as a Renaissance Man?* As students are writing their drafts, they have time for peer feedback using a familiar rubric. Note the importance of peer- and self-feedback
	• **Link to Webpage for the Leonardo Extended Lesson** (Password: *leonardo*) All of the following resources are on this Webpage:
	
	• **Link to Power Point Slides**
	
	• **Pictures and questions for the Discovering Da Vinci Activity**
	
	• **Leonardo's Music**
	
	• **Article #1 from Newsela about Leonardo**
	
	• **Article #2 about Leonardo**
	
	• **Article # 3 Being a Renaissance Man**

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and multiple drafts. Students complete a final draft. To enhance the reading and writing experience students also have access to information about Leonardo's paints and paper, the golden ratio, and mirror writing. At stations, students can explore writing on rag paper with a quill pen as Leonardo did for his codices. Students can also practice mirror writing, the method Leonardo used to record details on his inventions. 4. **Authentic Connection Through Problem/Solution-Based Learning:** At this point, students are given a codex (bound tablet with blank pages) like Leonardo used for his inventions. On the Webpage, students have the opportunity to view a video and tour virtual museums that display Leonardo's codices and inventions. Students are then given the opportunity to search for any modern day problem that they want to propose an inventoin to solve. They draw their invention, make careful notes about how their invention works, include dimensions, and explain how it will be a solution for a contemporary problem. Students complete several inventions (5-10). They then select their favorite invention and explanation to place on a large poster. In addition to notes on the invention, students also include an explanation of the problem from today that their invention is designed to solve. 5. **Showcase:** Students present their inventions to other classes orally and set up a dislpay in the library. In addition, their presentations are video taped and posted on the teacher's Webpage for others to view.	• **Additional Leonardo Creations** • **Mirror Writing** • **The Golden Ratio** • **Using The Golden Ratio** • **Leonardo at the Museum**