

Renaissance Invention Unit, Lesson #3: Focus on Math/Science

1. Teacher Name:	Alison Keddington			2. Course/Content/Grade:	6th Grade Social Studies
3. Unit/Module/Topic:	Unit 3 – Renaissance			4. Plan Duration:	1 hour
5. Core Standard(s):	<p>6th Grade Social Studies Standard 2 Objective 4: Explain the importance of the Renaissance as a rebirth of cultural and intellectual pursuits.</p> <p>a. Investigate how technological and scientific developments of the time promoted literacy and the exchange of ideas that continue to this day (e.g. moveable type, telescope, microscope).</p>			6. Objective(s):	<p>Students will know how mathematics changed during the Renaissance.</p> <p>Students will use measurements to analyze the proportions of the human body used in Renaissance artwork.</p> <p>Students will identify the main differences between the geocentric and heliocentric theories of the universe.</p>
7. Essential Vocabulary:	<i>invention, society, technology, proportion, geocentric, heliocentric</i>			8. Interdisciplinary Connections:	Students will explore innovations in Math/Science such as invention of math symbols, the geocentric/heliocentric theory of the universe, and human body proportions in Renaissance artwork.
9. Assessing for Student Learning:		Students will complete a “Centers” activity page. They will submit a response to a quick write on Canvas.			
10. Technology Integration: (When applicable)	Teacher Use:	Laptop: <i>Playposit, Canvas</i>	Student Use:	Chromebooks: <i>Playposit, Canvas</i>	
11. Area for Content Specific Additions		Writing 4: Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.			
12. Pacing (mins.)	13. Lesson Sequence (What You Do When: Including Explicit Instruction/Guided Inquiry)	14. DOK Level	15. Grouping and Scaffolding Structures (including interventions for diverse learners)	16. Engagement & Checking for Understanding (OTRs: What will students be saying, writing, reading & doing)	
5 min	The teacher will review procedures and behavior	1	<u>Whole Class</u>	The teacher will use cold calls, think-pair-share, and	

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	expectations for a station rotation model lesson. She will introduce three 15-minute activities and model the use of the Centers activity page.		The Centers activity page includes visual/written behavior expectations for all students.	checks for understanding (thumbs up/thumbs down) during instruction.
45 min	<p style="text-align: center;"><u>Invention of Math Symbols</u></p> <p>Students will add the missing math symbols to create accurate equations from provided sets of numbers.</p>	2 3	Individual/Dyads	Students use number/symbol tiles to create math equations and record the accurate equations on their activity page.
	<p style="text-align: center;"><u>Human Body Proportions</u></p> <p>Students will measure lengths and widths of arms, legs, etc. and draw conclusions on how certain body parts are proportionate to others.</p>	2 3	<p style="text-align: center;"><u>Dyads</u></p> <p>Enrichment/Extension questions are provided for accelerated learners (math).</p>	<p>Students will work together to make measurements, which they will record on their activity page.</p> <p>Students have access to white boards and markers for working mathematical proportions.</p>
	<p style="text-align: center;"><u>Heliocentric Theory</u></p> <p>Students will view a digital video (Playposit) about Copernicus, Galileo, and the development of the heliocentric theory (compared to the geocentric theory) of the universe and answer listening comprehension questions.</p>	1 2	<p style="text-align: center;"><u>Individual</u></p> <p>Students are able to rewind the video if needed. Questions and answer choices are read aloud.</p>	Students will answer listening comprehension questions when prompted using the PlayPosit platform.
5 min	The teacher will assist students in accessing a writing assignment on Canvas.	3	<p style="text-align: center;"><u>Individual</u></p> <p>Sentences frames are provided for ELLs and students on IEPs.</p>	Students will respond to a writing prompt on Canvas.

<p>17. Closure: (Students reflecting on their learning and providing feedback on their understanding to the teacher)</p>	Students answer the open-ended question, submitted on Canvas for teacher review: <i>“How are new ideas a driving force in history? How is the world viewed differently after Renaissance innovations in science and mathematics?”</i>
<p>18. Feedback to students: (Teacher providing feedback to students on their learning and growth)</p>	Teacher gives verbal feedback as she monitors the rotation activities. The teacher uses a writing rubric to give feedback on Canvas.