Biopics & Music Videos in the Scientific Revolution

9th-10th Grade World History

You will be producing a movie trailer or music video (approximately 2–4 minutes in length) about a figure in the Scientific Revolution. You will work in groups of 2–4 students.

Your group will choose one figure from the list below and decide whether to create:

- A biopic trailer (a short trailer for a film about your figure), or
- A music video (an original song or song parody that drives the video).

Background, Standards, and Objectives

By this point, we have covered and discussed the difference between dogma and empirical evidence. Slides for this lesson can be found **here.** This lesson will continue that exploration and give students the opportunity to dive into a Scientific Revolution figure's life and see how they contributed to the intellectual movement of the time.

Standards

CCSS.ELA-Literacy.W.9-10.7: "Conduct short as well as more sustained research projects to answer a question…"

- Students conduct sustained historical research into a Scientific Revolution figure, synthesizing biographical context, scientific breakthroughs, and broader societal impact into a cohesive narrative.

CCSS.ELA-Literacy.W.9-10.8: "Gather relevant information from multiple authoritative print and digital sources…"

- Students gather information from multiple credible sources, evaluate the reliability of historical and scientific evidence, and correctly cite sources in MLA format.

CCSS.ELA-Literacy.SL.9-10.4: "Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning…"

- Students present historical research through a multimedia format, organizing information logically and using visual and audio elements to support audience understanding.

Objectives

By the end of this project, students will be able to:

1. **Analyze** the life and scientific contributions of a key figure from the Scientific Revolution, including how their work challenged prevailing dogma and relied on empirical evidence.
2. **Evaluate** the historical impact of a Scientific Revolution figure by explaining how their discoveries influenced scientific thinking at the time and continue to shape modern understanding.
3. **Synthesize** information from multiple credible sources to develop a historically accurate and coherent narrative about a scientific figure.
4. **Create** an original multimedia product (biopic trailer or music video) that communicates researched historical content clearly and effectively to an audience.

Instructions

1. The Script (10 points)
Every video project should be planned. Your script must be completed and approved before you move on to the video phase.

Once you have selected a Scientific Revolution figure, research and answer the following questions (2 points each):

- **Birth / Early Life:** Where were they born? What was their early life like?
- **Breakthrough:** What was their major discovery or contribution to the Scientific Revolution?
- **Impact:** How did their work change thinking at the time and influence the world today?

Your script must also include references to:
• **Empirical Evidence:** What evidence did the scientist present? Why was it important?
• **Dogma:** What beliefs or ideas of the time did this work challenge?

Additionally, your script should describe key elements such as characters, setting, costumes, and any special effects. This will be your guide when it comes time to start filming.

At the bottom of your script, include MLA-style citations for at least five (5) sources.

2. The Video (20 points)
Using your script as a foundation, produce an engaging and informative video.

Your video will be graded in two areas (10 points each):
• Information: Research and historical content are clearly presented in the video.
• Production Value: Clear effort to create a high-quality, creative video (audio, visuals, editing, organization).

Video production can be notoriously tricky – for that reason, you can use either a group members' phone camera (iPhones these days are sometimes just as good as cinema cameras...) or you can borrow a DSLR from the library. Video editing software is widely available. Here are some decent free options:

- DaVinci Resolve (free version)
- CapCut
- iMovie
- Clipchamp
- Adobe Premiere Rush

Who You Can Cover

You can choose from the following list. Historical figures not on the list can be covered, they just need to be approved beforehand.

Maximum of two groups per figure, please.

- Galileo Galilei — Use of the Telescope
- Johannes Kepler — Planetary Motion
- Nicolaus Copernicus — Heliocentrism
- Isaac Newton — Laws of Motion & Gravity
- Francis Bacon — The Scientific Method
- William Harvey — Circulation of Blood
- Edmond Halley — Comets
- Margaret Cavendish — Natural Philosophy
- Maria Cunitz — Astronomy
- Maria Sibylla Merian — Biological Illustration
- Sophia Brahe — Supernovas

Rubric (30 points total)

Category	Excellent (Full Credit)	Proficient (Partial Credit)	Developing (Limited Credit)	Points
Script: Content & Research (10)	Accurate, thorough coverage of early life, breakthrough, impact; clear empirical evidence and dogma; 5+ strong MLA sources.	Mostly accurate coverage; minor gaps; 4–5 sources with minor MLA issues.	Incomplete or inaccurate; weak evidence; fewer than 4 sources or major citation issues.	0–10
Video: Information (10)	Research is clearly communicated; ideas are accurate and understandable.	Mostly clear; minor inaccuracies or unclear moments.	Confusing, superficial, or major inaccuracies.	0–10
Video: Production Value (10)	Strong organization; clear audio; thoughtful visuals/editing; creative choices support content.	Adequate clarity; some audio/visual or pacing issues.	Disorganized; hard to hear/see; minimal editing effort.	0–10

Teacher Rationale and Project Example

This lesson comes from my high school World History class (primarily composed of 9th and 10th graders) and particularly demonstrates my combination of inquiry-based, student-centered, and – dare I say it – *fun* learning experiences. I have given this lesson and assignment for the last three years, and this is the latest iteration. It is always a project that students look forward to and recall fondly.

I especially like that this project allows students to conduct research with an interesting goal; that is, they get to produce a movie trailer or music video (both high-interest pieces of media), but only after they have studied a historical figure in depth. It also allows them a large amount of choice by way of creative license (script-writing, video production; the product is up to them and is as varied as the students themselves) and figure selection (they get to choose who to cover, I don't assign them).

Being that I am a former media professional, I offer students extensive assistance at all stages of the process. Advanced students will complete this project at a high level of technical competency, but the beauty of it is that even more developing students can still produce a well-researched script and coherent, entertaining video.

Here is a particularly strong example of a student project:

Galileo, 2025