

# Galileo's Daughter

BY JESSICA DICKEY

DIRECTED BY REENA DUTT

central  
square  
theater

STUDY GUIDE COMPILED BY TALYA KINGSTON

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Rattled by a personal crisis, a **writer** flees to Florence, Italy, to study the letters between the famous scientist **Galileo Galilei** and his eldest daughter **Maria Celeste**.

Galileo placed his two daughters in the protection of a convent when they were 11 and 13 years old. Maria Celeste led a full life in the convent: praying, cooking, sewing, mixing medicinal herbs as an aid to those suffering from the bubonic plague, writing and acting in religious plays, looking after her younger sister, and even transcribing some of her father's long books. Galileo and Maria Celeste were very close and often expressed in their letters how much they missed each other. When Galileo was called to the office of the Inquisition in Rome to account for a controversial theory in one of his books (that the sun rather than the earth was the center of the universe), his daughter ran his household from the convent and wrote to leaders pleading with them to act on his behalf.

The writer's discovery of Maria's strength and tenacity inspires her own pursuit of purpose. Alternating between past and present, this play is a personal examination of faith, forgiveness, and the cost of seeking and speaking truth.

## Post Show Discussion Questions:

- 1 What do you think the character of The Writer found exciting about the story of Galileo and his daughter Maria Celeste? What parallels did The Writer draw from their story to her own life?
- 2 Before you saw the play what did you know about Galileo? How did the perspective of Maria Celeste and the writer shift your understanding of his life?
- 3 How does the production's design (costumes, set, lights and sound) focus our attention on certain moments? How does it help move the story across time periods? Give an example of a moment that you remember.



An astronomer observes the sky in an engraving by Johannes Hevelius (1611-87)

*“If we could look into a giant telescope, one that sees much farther than this one, we might see a time when such a thing is possible...”*

- a line from the play in which Galileo looks forward to a world with more tolerance and freedom.

## Reinterpreting History: how the story gets to you.

From 1623 to 1633, Maria Celeste wrote letters to her father the famous scientist Galileo Galilei from the convent where she was living and working. 124 of these letters were translated from Italian into English by science writer Dava Sobel in 1999. From the letters, and other research, she wrote *Galileo's Daughter: a historical memoir of science, faith, and love*, which enables readers to view the scientist through the eyes of his favorite daughter. This biography was read by playwright Jessica Dickey; who after taking her own trip to Florence, wrote a play that integrated her own story with that of Maria Celeste. In 2024, WAM Theatre and Central Square Theater hired director Reena Dutt to interpret that script for our stages - and that's the story that you will experience.



### Dava Sobel (translator & author)

"I often think this was the book I was born to write. I felt a bond with the title character, though she was a Catholic nun living in Tuscany in the early sixteenth century, and I was raised Jewish in the Bronx in the mid-twentieth. From my first encounter with Suor Maria Celeste (Virginia Galilei), reading the letter in which she implored her father for help fixing the convent clock, I was enthralled by her prose style, her humor, and her moxie."

More about Dava Sobel: [www.davasobel.com](http://www.davasobel.com)

### Jessica Dickey (playwright)

"I discovered my own story to tell through Sister Maria Celeste and her renowned father. To that end I have condensed the timeline of historical events, particularly in relation to Galileo's trial. My intent and hope is to stay true to the history but still construct as potent a dramatic narrative as possible."

More about Jessica Dickey: [www.jessicadickey.com](http://www.jessicadickey.com)

### Reena Dutt (director)

"The show travels with a writer working through her own crisis by investigating the history of a brilliant woman long since buried with time. Unearthing their lives in this fast-moving, funny, and heart-warming play is a delight."

More about Reena Dutt: [www.reenadutt.com](http://www.reenadutt.com)



Dava Sobel's translation of Maria Celeste's letters: [galileo.rice.edu/fam/daughter.html](http://galileo.rice.edu/fam/daughter.html)

Short video interviews with Jessica Dickey and Reena Dutt can be found at [wamtheatre.com](http://wamtheatre.com)

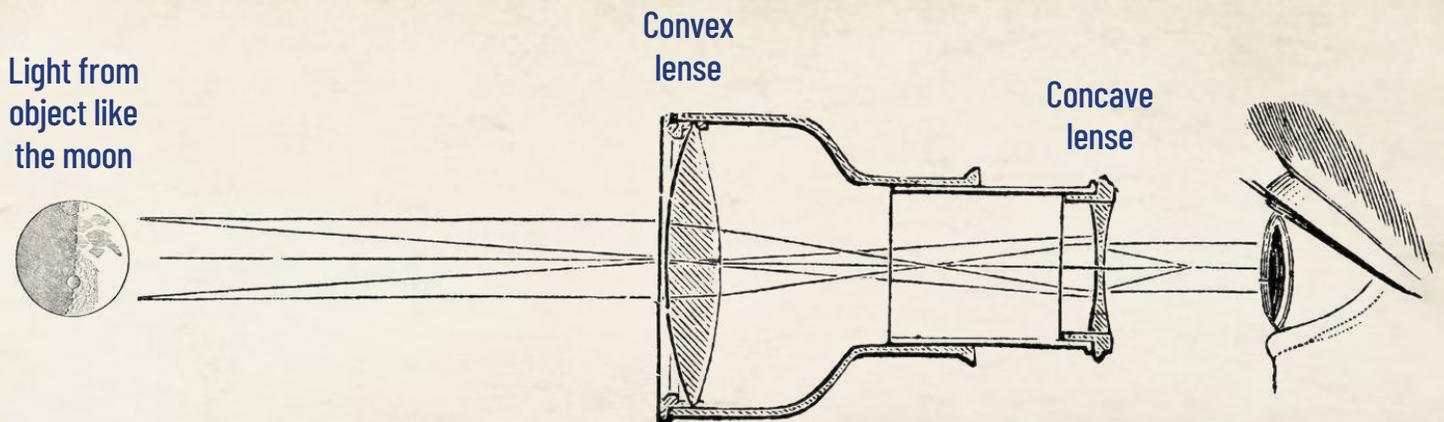
## ACTIVITY: Imaginative Time Travel

Who would you like to meet from another time period? Take 5 minutes to look up some basic facts about their life, then write an imagined conversation between yourself and the person from history. Maybe ask them about a problem that you are running into in your own life and imagine the advice they would give you. Is this advice relevant in your time/place? If not, why not?

## Father of Experimental Physics

Galileo tested his mathematical theories with experiments. For example, when he was a Professor at the University of Pisa he was reported to have dropped different objects from the top of the leaning tower of Pisa, publicly proving that falling objects of different weight will accelerate at the same speed. This disproved the Greek philosopher Aristotle (384–322 BCE) who had stated that objects would travel at a speed in proportion to their weight.

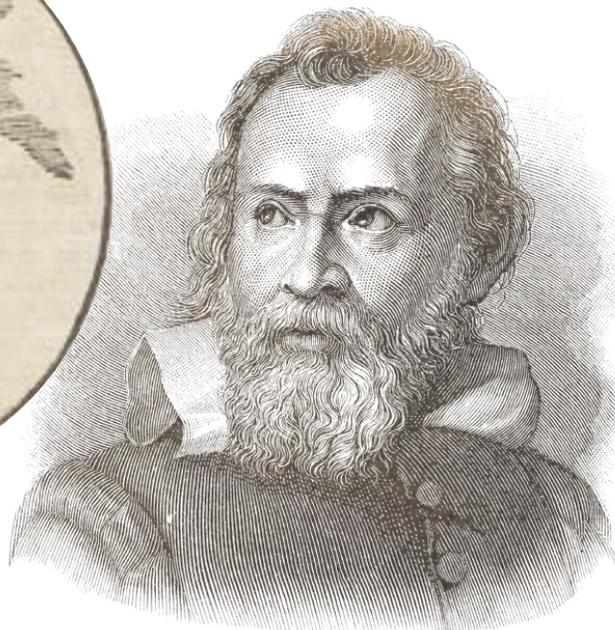
In 1609, Galileo began using a telescope to study the galaxy. Galileo used a telescope that was made up of a convex lens and a concave lens. The convex lens collected and converged the light. The concave lens made the light parallel again. His first telescope was only 8x magnification. But that year he also developed a 20x magnification one which he used to study the moon and planets.



These discoveries had important applications in the world that Galileo was living in, for example his telescope could be used by sailors to spy enemy ships from further away than the naked eye.



Diagram of the moon's craters  
by Galileo Galilei



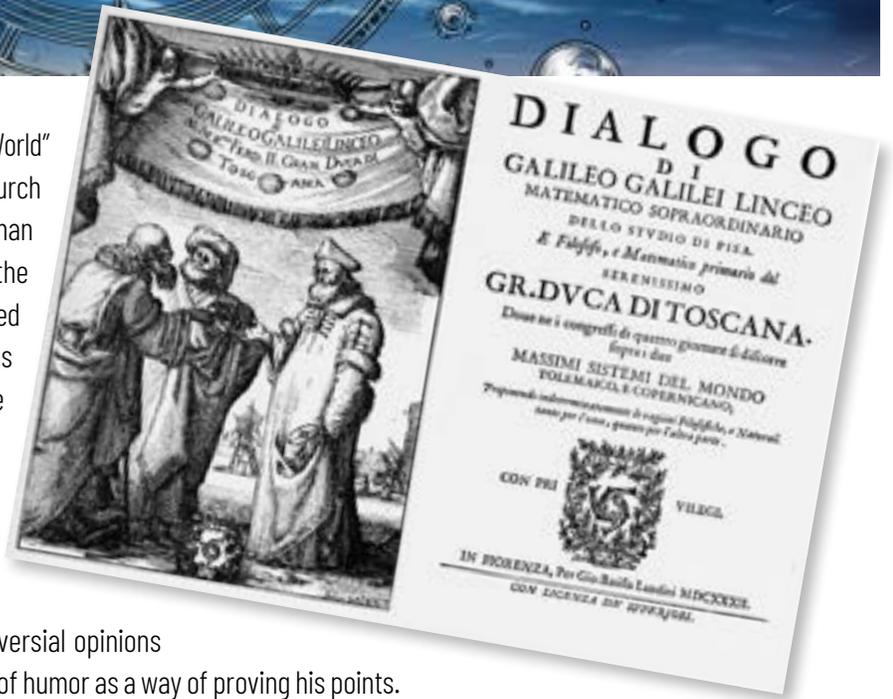
Galileo Galilei.

### DEFINITIONS

- Concave** - hollowed or rounded inward like the inside of a bowl
- Convex** - curved or rounded outward like the exterior of a sphere or circle
- Complicated** - appears impenetrable but can be solved with method, observation, and application
- Complex** - comprised of two or more parts and therefore hard to separate, analyze, or solve

## Inquisition & Banned Books

Galileo's book "Dialogue Concerning the Two Chief Systems of the World" (published in Florence in 1632) was a best seller. It passed the church censors, but offended Pope Urban VIII and the leaders of the Roman Catholic Church because it discussed the idea that the sun, not the earth, might be the center of the universe. Galileo was summoned to appear before the Roman Inquisition to defend himself and was sentenced to heresy for challenging the predominant view of the universe laid out by the Catholic Church. He publically recanted, but still lived the last ten years of his life under house arrest.



In his book, Galileo presents his ideas in the form of a play (a dialogue between three people) as a way of writing controversial opinions without attributing them to himself. Galileo also used his sense of humor as a way of proving his points.

*"I believe that one of the greatest pieces of arrogance, or rather madness, that can be thought of is to say, 'Since I do not know how Jupiter or Saturn is of service to me, they are superfluous, and do not even exist' Because, O deluded man, neither do I know how my arteries are of service to me, not my cartilages, spleen, or gall; I should not event know that I had a gall, or a spleen, or kidneys, if they had not been shown to me in many dissected corpses."*

- Galileo, *Dialogue Concerning the Two Chief Systems of the World*.

His book was placed on the Index of Prohibited Books in 1633, and as such Catholics were forbidden from reading it. It remained on this list for nearly 200 years, until 1824. The Index itself was abolished in 1966, but the practice of banning books remains in many countries (including the USA) today. For activism around banned books, past and present, in the United States visit: [bannedbooksweek.org](http://bannedbooksweek.org)

### ACTIVITY

Find two other examples from history or today where books have been banned. Who proposed or enacted the ban? What was the intention behind the ban? What was the impact of the ban?

### DEFINITIONS

- Heliocentrism** - the astronomical model in which the Earth and planets revolve around the Sun at the center of the universe
- Heresy** - an opinion or doctrine contrary to church dogma; an opinion, doctrine, or practice contrary to the truth or to generally accepted beliefs or standards
- Inquisition** - a powerful office and judicial procedure within the Catholic Church whose aim was to combat heresy, blasphemy and customs considered deviant throughout Europe and the Americas. Beginning in the 12th century and continuing for hundreds of years, the Inquisition is infamous for the severity of its tortures and its persecution of Jews and Muslims.