museo galileo

Istituto e Museo di Storia della Scienza



Teacher's Guide

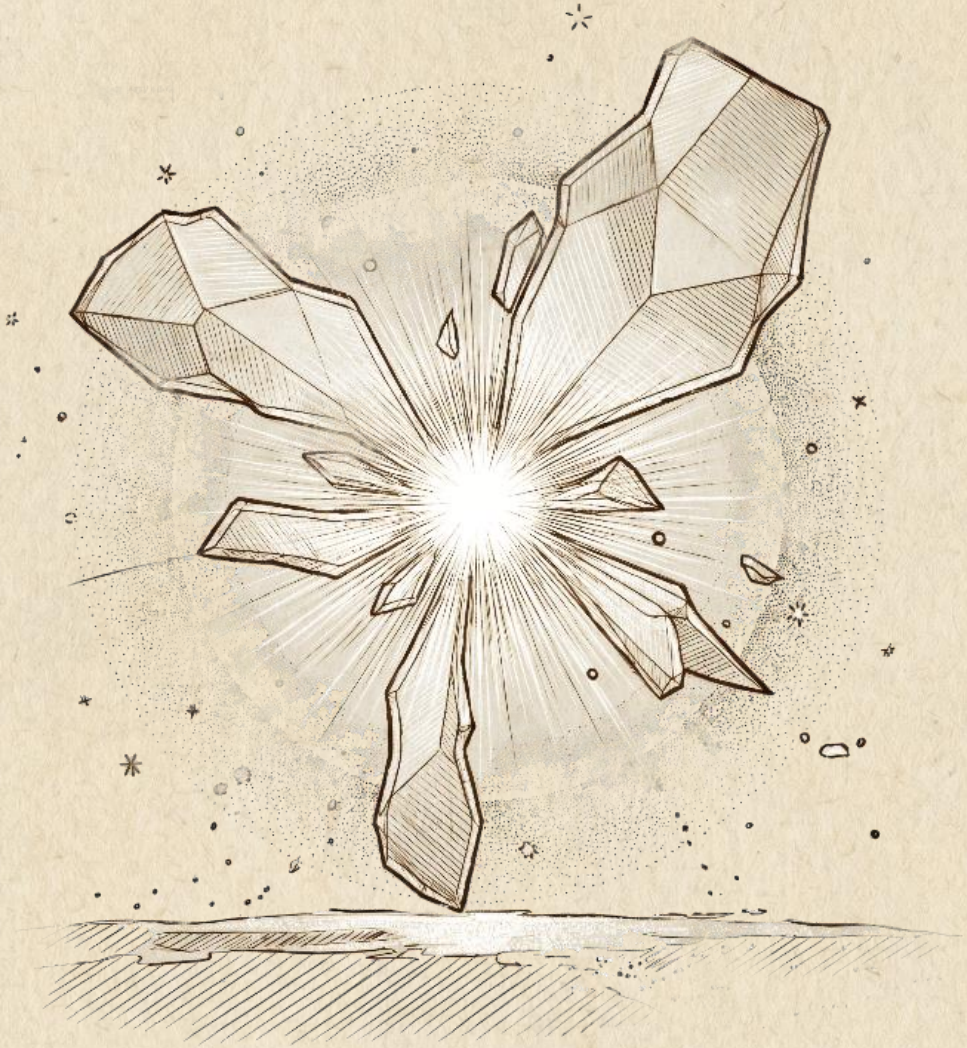
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MiC MINISTERO DELLA CULTURA

What is Galileo Legacy?

Galileo Legacy is the **Fortnite** island created by **Museo Galileo** in Florence: an interactive experience designed to connect historical scientific collections with the visual and digital language of today’s students.

It goes far beyond simple entertainment. Every trial in the game is modeled after real scientific instruments preserved in the Museum's galleries. Galileo Legacy serves as a versatile teaching tool, offering a fresh medium to introduce complex scientific concepts in an engaging, intuitive way.



This experience is not sponsored, endorsed, or administered by Epic Games, Inc.

How to Access the Island

Accessing Galileo Legacy requires only a free Fortnite account.

Here are the 3 steps to reach the island:



Choose your device

Log in via PC, gaming console (PlayStation, Xbox, Nintendo Switch), or connect your screen to the classroom's interactive whiteboard (IWB).



Download Fortnite

If not already installed, download the official Fortnite game client for free.



Search for the Island

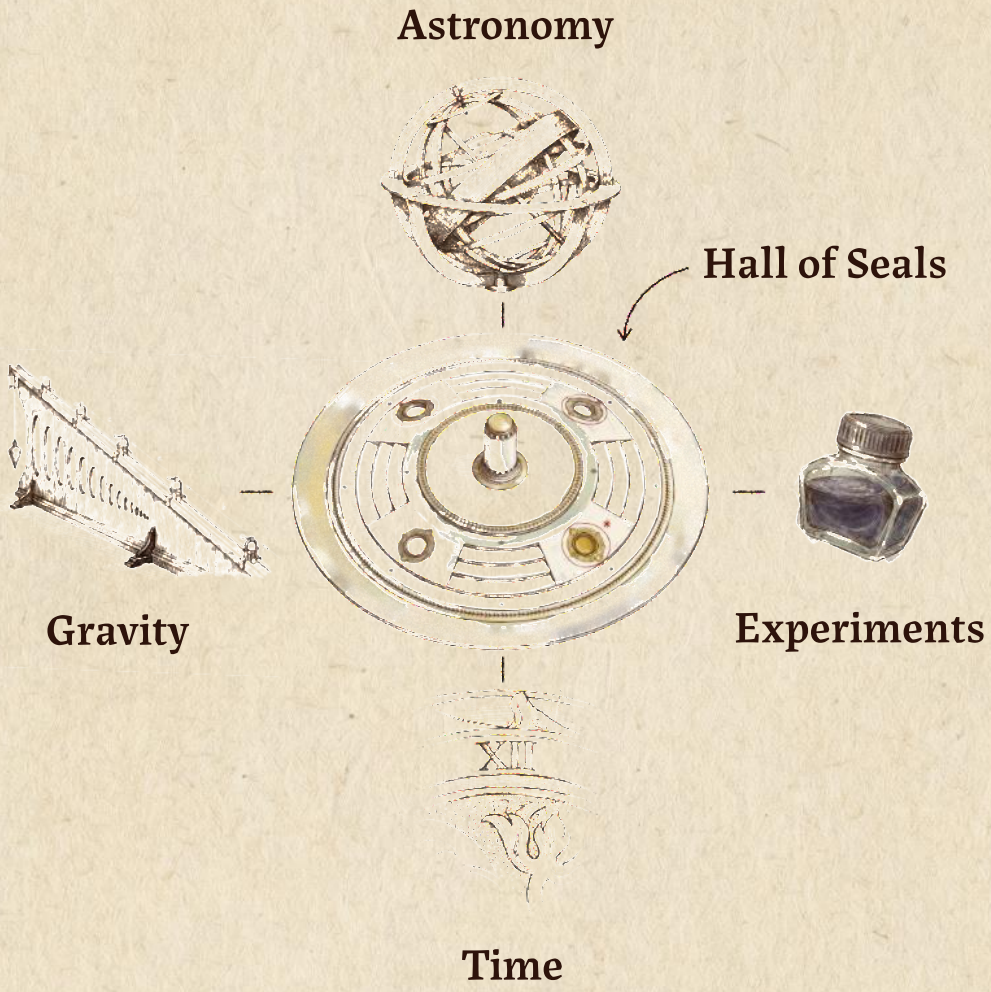
Launch the game, click the search icon in the upper-left corner of the main menu, and type “Galileo Legacy”. Open the island page and start exploring.

Game Structure

At the heart of the island lies the Hall of Seals, the central hub leading to the four Wings: Astronomy, Experiments, Gravity, and Time. Each Wing forms an independent path with unique riddles and environments, playable in any order.

Completing a Wing rewards players with a Seal: the ultimate goal is to retrieve all four.

A quick tip before you begin: the game features an overarching narrative mystery. At the end of each Wing, an elusive shadow appears—its true identity is revealed only upon completing the entire journey. We recommend not spoiling it in advance: curiosity is an essential engine of learning!



Astronomy Wing

The **Astronomy Wing** introduces students to early cosmological models, featuring historical instruments that guided astronomers and transformed our understanding of the universe. To progress, students must navigate a treacherous grid using a compass, a map, and coordinates.

The journey peaks as players scale a colossal, shifting Armillary Sphere.



TEACHING INSIGHT

Cardinal points, coordinates, and principles of orientation: students apply these three core concepts directly within the game before studying them on the page. It bridges geography, physics, and the history of science.

Experiments Wing

Students step into the shoes of early researchers and secret agents: they follow a precise chemical recipe at the **Chemistry Cabinet** to formulate functional invisible ink, then crack an encoded message using a **Historical Cipher**.



TEACHING INSIGHT

The **Chemistry Cabinet** sequence allows students to engage with historical laboratory methods. The Cipher introduces the foundations of classical cryptography, where mathematics, history, and linguistics converge into a single trial.

Gravity Wing

The **Gravity Wing** explores Galileo’s pivotal insights into motion and free fall across three fundamental principles: **acceleration**, **inertia**, and **gravity**.
The central highlight recreates the famous **Experiment of Falling Bodies**. Students interact directly with gravity levels, increasing or decreasing them to complete the route.



TEACHING INSIGHT

No abstract equations, no chalkboard: just direct, firsthand proof that, in the absence of air resistance, all objects fall at the same rate, regardless of mass.

Time Wing

The **Time Wing** examines the relationship between astronomy and time measurement through sky observation. Upon scaling a massive tower, players face a monumental **Nocturnal**: by locating Polaris and Ursa Major, they deduce the exact local time.



TEACHING INSIGHT

Before mechanical clocks, time was read in the night sky. This section connects astronomy, technological history, and the concept of **time** as a human-constructed measurement rather than a mere natural given.

Integrating Galileo Legacy into Your Lessons

Galileo Legacy easily adapts to diverse learning environments, both in the classroom and at home.

In the classroom, Interactive Whiteboard

Run a team challenge. Divide the class into groups, assign a Wing to each team, and let them collaborate to find solutions while you project and guide the gameplay on the main screen.

At home, independent study

Assign exploration of the island as an interactive homework project. Students solve the riddles at their own pace and return to class ready to share observations on the historical instruments encountered.

From the Fortnite Island to Museo Galileo

The Armillary Sphere, the Nocturnal, the Astrolabe, and beyond: the real history continues in our galleries.

Once all the riddles are unraveled, students will see that Galileo Legacy is more than just a game, it is an open door to scientific discovery.