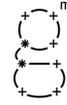


# Galileo's New World

Post-visit

Proposals for activities



## Introduction

This document, aimed at teachers, is an integral part of the post-visit phase of the educational pathway "Galileo's new world".

### **Purpose of the document**

The aim is to provide some basic ideas from which to start elaborating activities to be carried out in the classroom or at home, in order to implement the acquired knowledge. The document also indicates complementary paths to the visit developed by other European institutes participating in the project as a stimulus to proceed to an autonomous study of the proposed themes.

### **Mode**

The illustrated activities are designed to be carried out in small groups. Each group should be assigned a task on a specific topic within a unitary theme. The best works will be published on the Museo Galileo website.

### **Purpose**

The aim of the activity is to encourage students to learn, through direct experience, complex theoretical concepts, while promoting the importance of different points of view, the spirit of collaboration, inclusion, the multiplicity of styles and the error evaluation.

### **Delivery of the material**

The documents can be sent via the [WeTransfer](#) web application to the address [didattica@museogalileo.it](mailto:didattica@museogalileo.it).

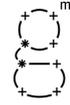
The images should be sharp and have a minimum resolution of 1000x1000. The videos must have a maximum duration of about 2 minutes.



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## Galileo's New World: Post-Visit



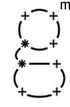
museo  
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## Proposals for activities

### Primary schools

1. For the youngest, leave the opportunity to draw what inspired them the most during the activity, perhaps assigning different topics to different groups (Galileo, his instruments, the solar system, etc.)
2. Draw some salient facts or instruments exhibited at the museum accompanied by short descriptions to create information panels to display in class.
3. Collaboratively create a small comic or an illustrated booklet consisting of a few pages in which the protagonist solves a problem using scientific tools or concepts illustrated during the visit, such as orientation. The teacher can suggest a track but it would be interesting to have the children elaborate the story. A couple of pages or a chapter per group are sufficient, even using A4 sheets to be inserted in a price list.
4. Following the colored worksheet provided together with the teaching material, "build" different constellations to be cast in a dark room.
5. Have short dialogues written on a topic addressed during the visit and organize small theatrical performances to be interpreted and filmed (max. 1-2 minutes per group).



## Middle schools (age 11-13)

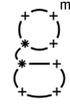
1. Short quiz to check students' acquisition of some concepts
2. Collaboratively create a small comic or an illustrated booklet of a few pages that traces a topic covered during the activity, eg. astronomical observations in antiquity, the Galilean discoveries, the transition from pre-telescopic astronomy to the modern era, etc. It is necessary to collaboratively decide the topic, create a storyboard, and then divide into groups for the final draft. For the realization, are sufficient A4 sheets to be inserted in a price list holder.
3. Record short videos imagining interviewing scientists who lived in different eras in order to have them explain astronomical theories or discoveries of the time. Prepare a canvas with questions in advance.
4. Creation of a scale model of the Solar System. Use corridors and garden of the school to place the Sun and the first planets (Note: already with a Mercury of 5 mm, on a scale of 1:1,000,000,000 to respect the proportions Neptune will be about 4.5 km away!)
5. Build a nocturnal using the provided worksheet and, at home, try to find the time at night, recording the steps taken, and then compare the results with classmates.
6. Try to identify some celestial objects at night without the help of apps using the suggestions in the attached document "*Easily identifiable celestial bodies*" as a cue. Document (in written or oral form) the observations and share them with classmates.



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### **High schools (age 14-18)**

1. Short quiz to check students' acquisition of some concepts
2. Short essay on some topics addressed during the activity. E.g.:
  - a. Group 1: pre-telescopic observations. Illustrate and describe the geocentric system and try to explain why it remained the predominant theory until the beginning of the modern era.
  - b. Group 2: the Galilean revolution and its implications for the perception of a New World. Explain how Galileo used his celestial discoveries (the satellites of Jupiter, the phases of Venus, etc.) to refute geocentrism and the idea of the perfection of the sky.
  - c. Group 3: evolution of telescopes and new astronomical discoveries after Galileo (e.g. the real form of Saturn, a broader view of the Solar System thanks to the discovery of new planets, the works and discoveries of later scientists such as Cassini, Huygens, Newton, Herschel etc.), with possible reflections on the new spatial challenges.
3. Tackle the previous topics in the form of imaginary interviews with astronomers from various eras (to be recorded in written or audio form or with video footage).

## New paths to explore in Virtual Pathways

An opportunity to confront the STEAM disciplines and understand the real distances between planets with a field test is the tool created on the [Seppo](https://play.seppo.io) platform by the University of Helsinki for the exploration of the Solar System. It is a multidisciplinary learning tool because it uses students' creative abilities in the realization of celestial bodies, their mathematical skills in terms of magnitudes and scales and scientific knowledge thanks to questions and information that will allow them to complete the walk in the Solar System.

