

## For Ses #4 SP 713

### Observing

Watch for the moon and sky whenever you can, thinking about yourself as an observer.

### Viewing Activities

Write from what you did and noticed in the class investigations with frames, size and measure.

Discuss some of your efforts to use Galileo's geometrical compass.

Comment on geometry and proportion as a means of seeing and calculation in the examples of your class activities with frames, Galileo's compass, and the lenses and curved mirrors.

Describe your efforts and insights to see, work, and compute with geometry and proportion.

### Galileo Story

For an overview:

Under **Galileo Links:**

[Galileo's Telescope online](#). Annotated illustrations of the instruments and texts, including spyglasses, Galileo's instruments, and his observations.

Read Galileo's book of telescope discoveries, *Sidereus Nuncius*, 1610. You may read it from:

Under **Galileo Instruments:**

[Sidereal Messenger of Galileo](#) Albert van Helden's 1989 complete translation, from Latin.

Or [The Starry Messenger](#), Stillman Drake's 1957 translation in the paperback book *Discoveries and Opinions of Galileo*. This translation is incomplete.

You might look at these Links under **Galileo Instruments:**

[Galileo Sidereus Nuncius](#) and the [Sidereus Nuncius Manuscript](#)

Galileo crafted his later books as arguments to persuade and does not intend to reveal the personal process by which he developed. By contrast, in the *Sidereus Nuncius*, he shares with the reader some moments and passages from his improvisation, observing and discoveries. As you read, watch for the story he tells in what he tried, saw, wondered about, inferred. You might notice gaps (something he doesn't reveal) and parts that suggest confusion or incompleteness. How does the writing convey his amazing experience? Look for and note examples of Galileo's keen observation, both of these newly revealed marvels, and of more commonplace (but not commonly really observed) surroundings.

Notice how he uses what he observes and improves to develop and challenge what he understands.

Put yourself in Galileo's experience. What else might you wish to say or share – or hear from him?

You might write him an imaginary letter.

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EC.050 Recreate Experiments from History: Inform the Future from the Past: Galileo  
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