

## SP 713 Jan. 6 2010

### Viewing Activity

Explore viewing, frames, and geometry with frames, strings, grids, tubes, rulers, sighting aids, mirrors, paper...

Invent and test ways that make explicit what you are noticing about the geometry of sighting lines in space and locations on the view surface.

Suggest and try geometry methods for putting on a flat surface the relationships of things in space as seen from one view.

You might check out ideas related to what you and others did on Monday. You might adapt techniques suggested in the historical illustrations (on the assignment sheet for today or below or in the class illustrations). You might try placing a flat mirror as a viewing pane, marking on the mirror, and comparing a perspective view made with a mirror against viewing by an open frame. Or you might explore a light source as an aide to viewing, for example the sun shadows (from Monday), or using a small light source to stand for the eye, and follow light and shadow through the viewing frame, or...

Figure removed due to copyright restrictions.

Left, p 29 from *La perspective avec la raison des ombres et miroirs*, Salomon de Caus London, 1612. Right, Mirror A, Eyepiece viewing hole D, from Stevin, *Optics*, 1605, in his *Oevres*, p 801; both texts online at <http://fermi.imss.fi.it/rd/bd?lng=en>

Return to classroom by [Time]

Describe, share and extend what you did and inferred with geometry.

## **Exploring with curved mirrors, lenses...**

[For about 15 minutes] Explore looking with curved mirrors, lenses and eyeglasses.  
What is it like to look through or with them?

[Next] ***Choose one mirror or lens to examine.***

Draw on the methods and tools of observing and interpreting that you and others have been developing.

What do you notice about sizes and positions of objects in an observed area when this mirror or shaped glass intervenes?

What materials and observing situations are helpful to explore, compare and record what is going on with appearances and the things that are seen?

What goes on with shapes and surfaces with your piece of glass?

**Back to the Great Court at the end of class**

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EC.050 Recreate Experiments from History: Inform the Future from the Past: Galileo  
January IAP 2010

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