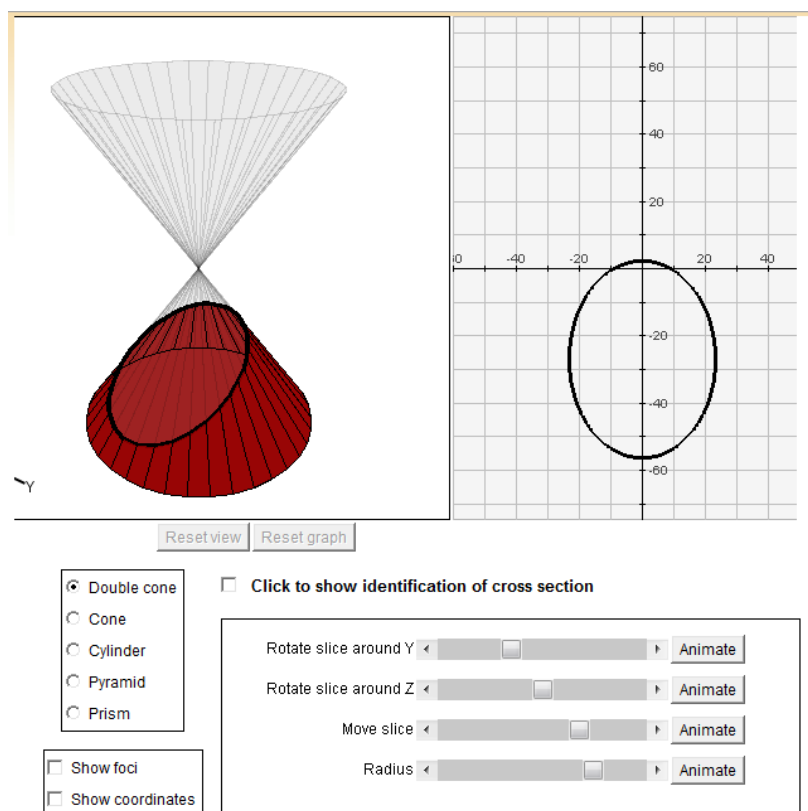


Interactivate: Cross Section Flyer

Curator: Becky Jackson



This application allows users to explore cross sections of a variety of cones, cylinders, prisms, and pyramids. Users can alter the properties of the three-dimensional figures, take cross sections, and visually compare the resulting two-dimensional shapes. This side-by-side analysis allows users to switch between two- and three-dimensional representations and transition to more abstract problems. There are options for viewers to see the name of the figure generated by the cross section, view foci and coordinates, as well as animate changes in slice location and three-dimensional figure size. In addition to the application, materials are also provided to guide students' exploration and encourage certain types of questioning.

Grade Level: 9-12

PSSM Content Standard: Geometry

- Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships
- Use visualization, spatial reasoning, and geometric modeling to solve problems

CCSSM Content Standard:

- Modeling (★) [CCSS.Math.Content.HSG-GMD.B.4](#) and [CCSS.Math.Content.HSG-MG.A.1](#)

Math Content: two-dimensional figures, three-dimensional figures, cross sections, equations of two-dimensional figures, cartesian graphing