Unit 1: Introduction to MVC/3D coordinate planes and vectors

Content Area: **Mathematics**
Course(s): **Multivar Calc H**
Time Period: **Semester 1**
Length: **9 weeks**
Status: **Published**

Standards

MA.K-12.1	Make sense of problems and persevere in solving them.
MA.K-12.2	Reason abstractly and quantitatively.

Enduring Understanding

The idea of what Multivariable Calculus is discussed and learned by extending known ideas from previous Calculus courses

Symbolic representation allows us to reason abstractly.

Essential Questions

How can we build upon a system?

What is the significance of notation?

Knowledge and Skills

- Draw and label three dimensional coordinate axes
- Plot and find the distances between two points in space
- Write equations of spheres
- Make connections to real llife multivariable situations
- Use data from table and use familiear 2 variable functions
- Use 2D vectors to draw resultiing properties and extend to 3D
- Find magnitude and component form of 3D vectors

Transfer Goals

Students will transfer their knowledge of 2-dimensional Calculus to 3D.

Thinking in this class will help them contemplate 3D spaces for art, printing, or the sciences.

Resources

AP Calculus, by Finney

Desmos.com

MIT Opencourseware