

VPython Introduction and Sample Code

Introduction to VPython Glowscript:

This unit utilizes the Visual Python (VPython) programming language that can be accessed for free via Glowscript. Once you set up an account all of your programs can be accessed, edited, and run through your web browser without downloading anything. Everything is saved on your account; it functions in a manner very similar to google drive/docs.

[See this short video tour of VPython Glowscript.](#)

Don't be afraid if you've never coded before! Look at the sample programs and the native "help" resources. The built-in support makes it really easy to teach yourself to be proficient in this language. A little bit of messing around and you'll be well on your way.

Go to glowscript.org to get set up.

Programs I've Written For This Unit: All of the programs for this unit are linked below for the convenience of having them all in one spot. Many of them are designed as templates for students to modify. There are also completed programs for instructor reference.

*Note: There are no programs linked here that are not also linked throughout the UbD template or in the student task sheets provided with this unit.

Lesson 3:

- Intro Check-in: [Constant Velocity Sphere \(not annotated\)](#)
- Intro Check-in Solution: [Constant Velocity Sphere \(annotated\)](#)
- Part 1 Template: [Constant Velocity Sphere Bounce \(not annotated\)](#)
- Part 1 Solution: [Constant Velocity Sphere Bounce \(annotated\)](#)
- Part 2 Template: [Constant Acceleration Sphere \(not annotated\)](#)
- Part 2 Solution: [Constant Acceleration Sphere \(annotated\)](#)
- Part 3 Template: [Constant Velocity Sphere Bounce Template](#)
- Part 3.0 Solution: [Constant Acceleration Sphere Bounce](#)
- Part 3.1 Solution: [Constant Acceleration Sphere Bounce Between Walls](#)

Lesson 4:

- [Projectile Motion Simulation Template \(for students to modify\)](#)

Lesson 5:

- [Simple Harmonic Oscillator Simulation \(students modify and add friction to conduct experiment\)](#)

Lesson 6:

- [Two Orbiting Bodies \(not annotated\) \(students are tasked with annotating it and adding a third body\)](#)
- [Three Orbiting Bodies](#)