GETTING STARTED

GUIDE FOR SECONDARY EDUCATORS

UNREAL ENGINE

01 INSTALLING

GETTING STARTED

This guide is designed to help you and your students start your game development journey. Each student should have access to Unreal Engine. This document provides information about how students and teachers can get Unreal Engine, how to install the tutorial material, and how to optimize Unreal Engine for use on all machines.

STEPS TO SUCCESS

1. Download the **Epic Games Launcher** application on each computer.
2. Install the latest version of **Unreal Engine** from the launcher.
3. Access the **Sample Projects** from the launcher.

INSTALLING UNREAL ENGINE

DOWNLOAD AND INSTALL THE EPIC GAMES LAUNCHER

To install Unreal Engine, you must first download and install the Epic Games Launcher application here. Follow the directions on this page for your platform (Windows, Mac, or Linux).

The Epic Games Launcher application is a centralized service that allows users to discover, download, and update games and applications. You only need to install it once on a computer, and it should be available to all users. It's a good idea to pre-install it, and Unreal Engine, on classroom computers before the class starts.

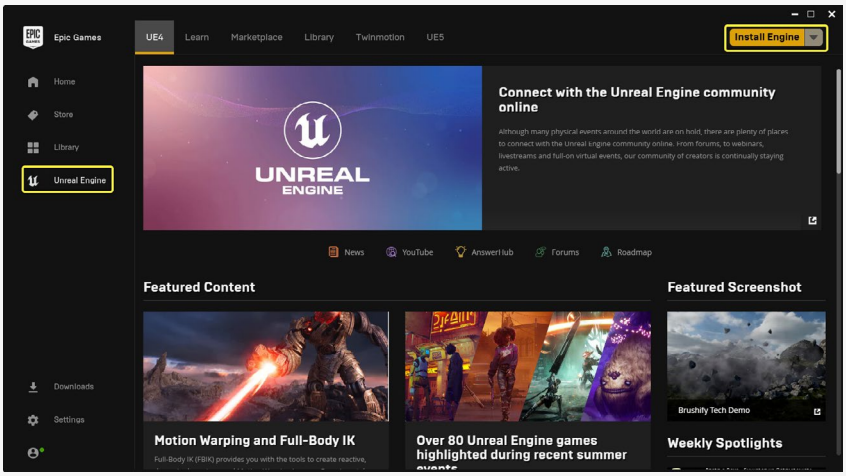
After installing the Epic Games Launcher, open it up and sign in using your Epic Games account.

INSTALL UNREAL ENGINE FROM THE LAUNCHER

Now that you've signed in to the Epic Games Launcher, you're ready to install Unreal Engine.

1. The Epic Games Launcher usually starts on the **News** or the **Store** page.To switch to the **Unreal Engine** section, click on the "Unreal Engine" tab on the left side of the window.

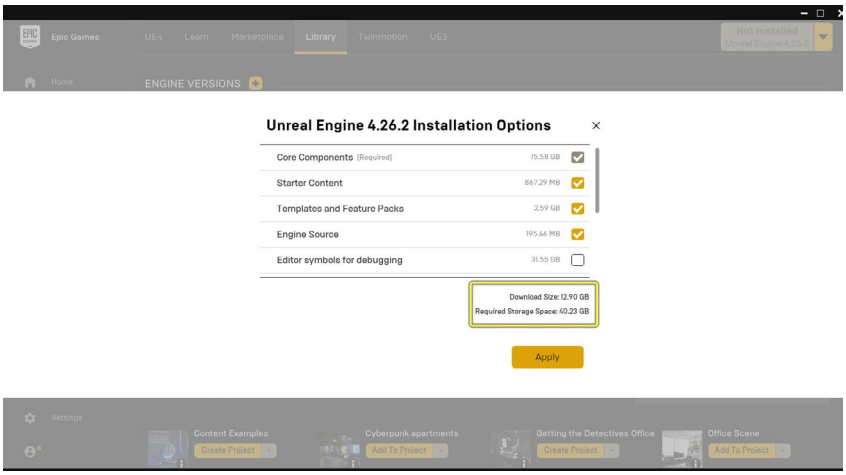
2. Next, click the **Install Engine** button to download and install the latest version of Unreal Engine.



3. Choose a location for the Unreal Engine installation, or accept the default, and click **Install**. Depending on your system specifications and internet connection speed, downloading and installing Unreal Engine will take around 10–40 minutes.

Note: Unreal Engine can use over 100 gigabytes of disk space for every version of the engine that is installed on a machine. Make sure you have plenty of disk space prior to installing Unreal Engine, and plenty of time to download it.

You can significantly reduce the download size and install time by selecting **Options** and deselecting the features and platforms you won't be using. We recommend keeping the **Templates**, **Feature Packs,** and **Starter Content**. However, most classrooms can turn off all the **Target Platforms**. You can always change your mind and reinstall them later.



While Unreal Engine installs, take some time to explore the launcher. There are free learning resources and content in the **Marketplace** and **Samples** tabs, along with timely news and community spotlights. You can also configure the launcher with an extensive **Options** menu, including the ability to turn the **Games** tab off.

DEPLOYING TO A CLASSROOM OR LAB

The preferred method for schools to deploy Unreal Engine is to install the Launcher and Engine on a single workstation, then clone, image or otherwise deploy that installation across the other machines in a computer lab or instruction room. We provide detailed instructions on how to do this with both the Launcher and the Engine.

Note: You can significantly reduce the download size and install time by selecting **Options** and deselecting the features and platforms you won't be using. Most classrooms can turn off all the Target Platforms. However, we recommend keeping the Templates and Feature Packs and Starter Content. You can always reinstall any optional installs later.

OFFLINE INSTALLATION

If you are unable to deploy using this method (for example, your school is behind a firewall or proxy), you can apply to access an offline installation of Unreal Engine here. This version is fully featured but does not have access to the Launcher, Marketplace or the Quixel Bridge plugin. You will also need to manually download and manage content and future engine updates.

STUDENT USERS

Schools have many options in regards to how students access Unreal Engine and the content available in the Launcher and Quixel Bridge. Students do not need to have an Epic ID or to log into the Launcher to use Unreal Engine. However, we do encourage students to create their own accounts if possible. An Epic Games account gives users access to thousands of free assets in the Marketplace and tens of thousands of assets in the Quixel Megascans library. An Epic ID will also give students access to the Epic Developer Community (EDC) , the official Unreal Engine learning, forums and community support site.

Creating an account is very easy:

1. Create a new Epic Games account via epicgames.com.
    a. Students will be prompted to enter a date of birth.
    b. Students under 13 will be required to create an account with a parent.
    c. Students over 13 can create their account by completing the online application.
2. Use an existing Epic Games Account
    a. If a student already has an Epic Games Account, they can simply log in using their current credentials. For example, if they have played Fortnite or used Unreal Engine before, they likely already have an account!

02 USE

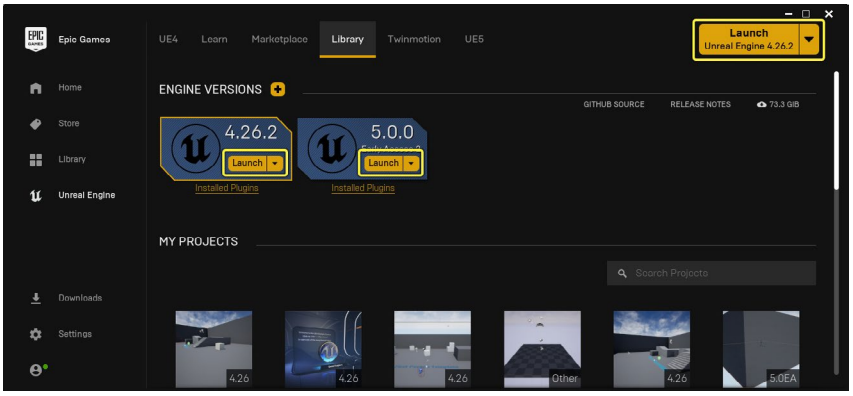
USING UNREAL ENGINE

CREATING A NEW PROJECT FROM A TEMPLATE

Unreal Engine ships with a collection of industry- and game-specific templates to help you start building games and projects faster. Students can explore the basics of game types—such as third person, first person and driving—in a simple, easy-to-modify way.

Once Unreal Engine is installed, either via the launcher or via the offline installer, click the **Launch** button or the **Desktop Shortcut** for Unreal Engine. This will launch the **Unreal Project Browser**, which lists your most recent projects along with a selection of templates for Games, Film, Architecture and more.

Many of the templates allow you to further configure them for desktop or mobile, and provide the option to configure the engine to support ray tracing.



You can then simply select a **Project Location** to store your project files, choose a **Project Name,** and click **Create**. A new project will be created, and will launch immediately!

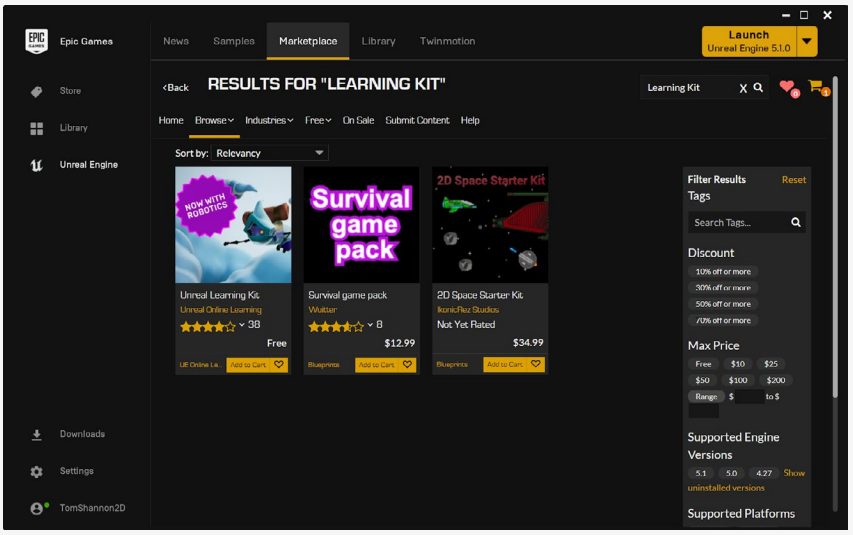
LOADING A MARKETPLACE OR SAMPLE PROJECT

You can also access a huge number of free projects via the launcher. These projects are more fully featured, but also require a little more knowhow to start using them.

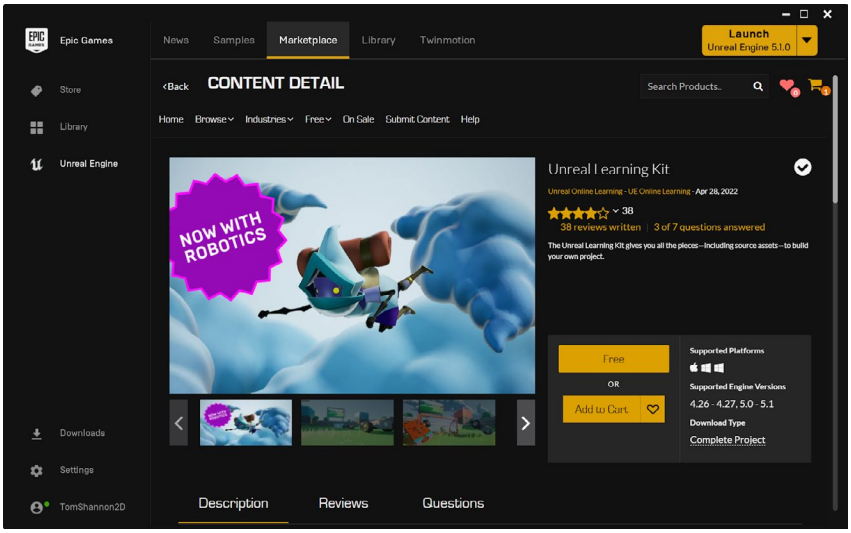
In the launcher, click on the **Marketplace** tab at the top of the window.

Once the Marketplace loads, hover over the **Free** section and select **Epic Games Content**. You can also use the search bar in the top-right corner to find a specific project.

For example, you can type “Learning Kit” into the search bar and select one of the Unreal Learning Kit projects from Unreal Online Learning.The Unreal Learning Kit projects are a great place to get started.

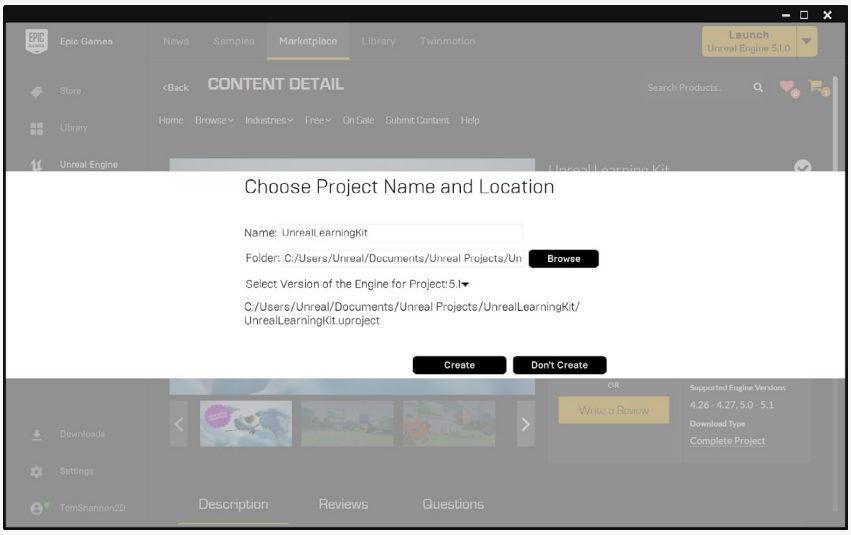


Once the project page loads, it should look like this:

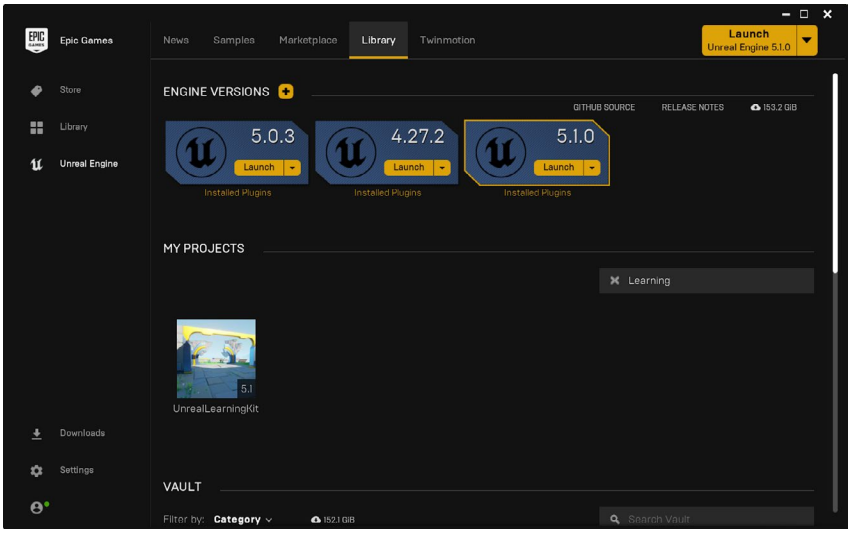


Click the **Free** button, then select **Create Project**.

On the prompt that appears, click **Create**.



Once the project finishes downloading, you will see it listed under **My Projects** in the **Library** tab of the launcher. Double-click on the project to begin, and you're ready to start working



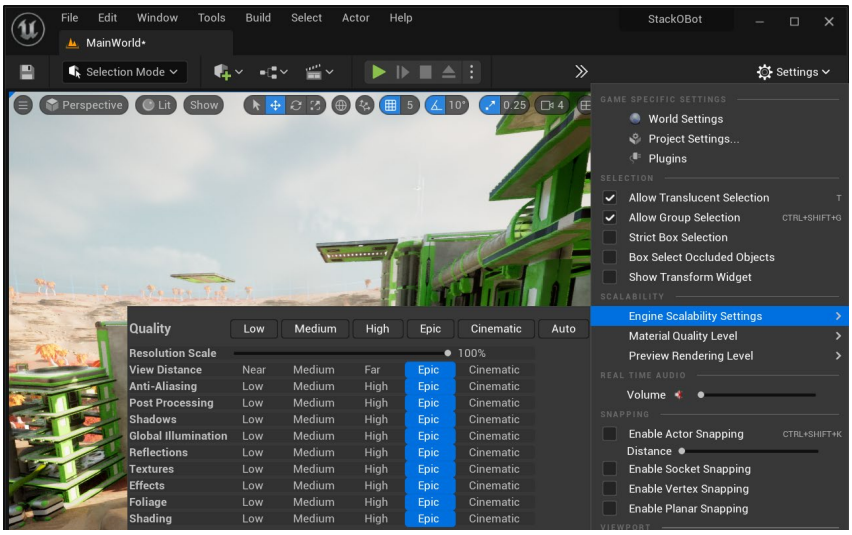
03 RUNNING UE

RUNNING UNREAL ENGINE IN THE CLASSROOM

You can find detailed hardware and software requirements on our documentation page here.
It's important to know that Unreal Engine is built to be scalable, meaning projects can run on machines of varying configurations by modifying or turning off specific rendering effects. Even on lower-end machines, students can learn to program gameplay with Blueprints, create dynamic audio and sound effects with Metasounds or explore character animation with Control Rig and cinematics with Sequencer.

ENGINE SCALABILITY SETTINGS

The easiest way to improve performance in UE5 is by utilizing Engine Scalability Setting. This allows you to set the fidelity of graphics options by using presets.



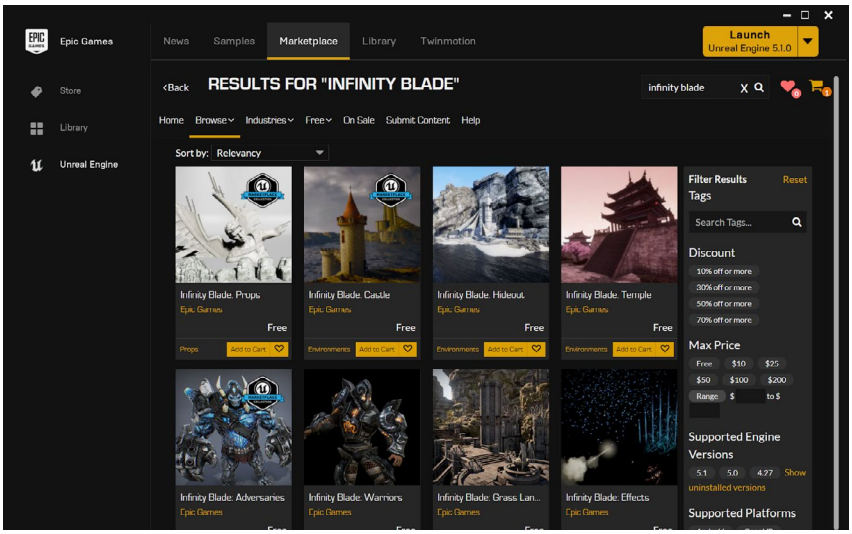
Setting the **Scalability** to **Medium** effectively turns off advanced rendering effects, such as Lumen GI and Reflections, and replaces them with more performant versions.

Epic Scalability 92fps on an RTX 3080

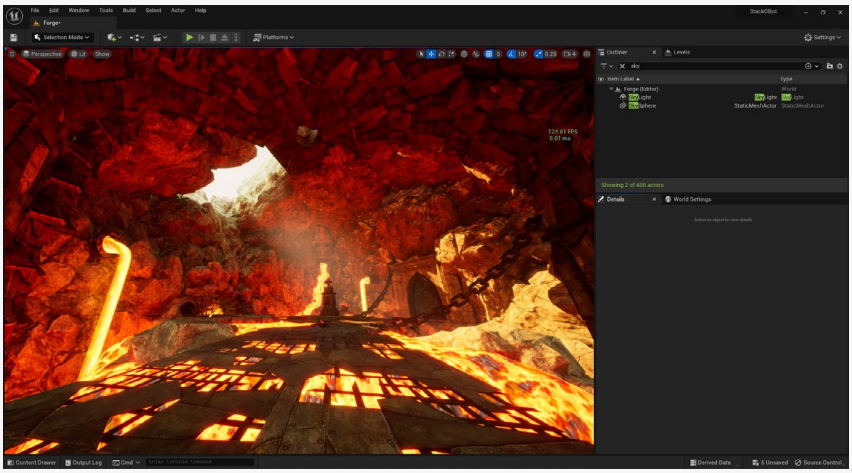
Medium Scalability: 132 fps on an RTX 3080

MOBILE CONTENT

Another strategy is to use content in your classroom that was designed for mobile platforms. Some great examples are the Soul City and Soul Cave packs and the Infinity Blade Collection. These projects are pre-configured to run on lower-end hardware and will typically work better than graphical showcases such as City Sample, Lyra, or even Stack O Bot.



It's important to note that you can typically open older Unreal Engine content in newer versions of UE5 with minimal fuss. Here is an example of the Infinity Blade content opened in Unreal Engine 5 and converted to use Lumen and Nanite.



04 SUPPORT

NEED ADDITIONAL HELP?

We'd love to hear from you! Please join us on the Unreal Engine Discord server for live chat with other Unreal Engine Educators. You can also get help and support on the Epic Developer Community, where you can find tutorials, learning paths, and forums.