

Walk Through

I know what you are thinking, Creators. "There's a walk through! Does that mean there are cheat codes?" No, there aren't any cheat codes listed here. In fact, I am going to have to ask you to turn back now! This page is for your teacher. It is to help them to understand everything that is going on, the materials, the pacing, so on and so forth. Lots of boring, teacher-stuff ahead!

Hello Teachers! Here lies all of the information you and your principal needs to know about this lesson.

The Basics

- Intended learners: middle and high school students
- Lesson duration: 14 45-minute classes or 2 weeks. This may vary based on your class time or if you have block scheduling.
- Materials needed:
 - Computer lab access
 - pencils
 - paper
 - erasers
 - acrylic paint
 - brushes
 - water and water containers
 - 3D printer access*

* While not completely essential to the lesson, 3D printing the characters that students make can help enhance their experience.

- Websites/ Software used:
 - Flowlab
 - TinkerCAD
 - Photoshop

About the Lesson... Rationale, Learning Objectives, and National Art Standards

Rationale

Why are middle school and high schools the prime audience for this lesson? Students of this age have typically been exposed to games and have a basic understanding of certain game genres. While they may have experience playing video games for fun, students might not realize just how much effort goes into designing a game. Through my research, I have come to the conclusion that video games are a form of interactive art. There are visuals, movements, sounds, stories or goals that are all included in one package. In this lesson, students get the chance to learn how to create and implement all of the items listed above in their own interactive work of art while also engaging with their interests.

At this age the students also have the ability to form a coherent story with an end goal and are fairly computer savvy.

Learning Objectives

1. The students will understand how to operate Flowlab through creating a sample game and watching tutorials.
2. The students will imitate a professional animator by not only coming up with a game concept, but also through creating concept art for their games.
3. The students will create their games in Flowlab. This includes:
 1. Creating the character sprites
 2. The environment and background
 3. The game physics and controls
 4. objects
 5. different levels
 6. sounds
4. The students will reflect on their experiences in the Creator Forum.

5. The students will learn how to create a 3D model in TinkerCAD by creating a model of one of their characters.

* If you do not have access to a 3D printer, then ignore objective 5.

National Core Art Standards

VA:Cr1.1.7a Apply methods to overcome creative blocks

VA:Cr1.2.7a Develop criteria to guide making a work of art or design to meet an identified goal.

VA:Cr2.1.7a Demonstrate persistence in developing skills with various materials, methods, and approaches in creating works of art or design.

VA:Cr2.2.7a Demonstrate awareness of ethical responsibility to oneself and others when posting and sharing images and other materials through the Internet, social media, and other communication formats.

VA:Cr2.3.7a Apply visual organizational strategies to design and produce a work of art, design, or media that clearly communicates information or ideas.

VA:Cr3.1.7a Reflect on and explain important information about personal artwork in an artist statement or another format.

VA:Pr4.1.7a Compare and contrast how technologies have changed the way artwork is preserved, presented, and experienced.

Pacing

Students should spend the most time on Objectives 2 and 3 since those are the main parts. However, the first two shouldn't be brushed over either!

Have students stay in the Tutorial Objective for two class periods so that they can play around in the Flowlab program and learn more about what they can do. This is essential, if students do not understand the program, they will have difficulty creating a successful game.

The rest of the objectives are fairly self-paced. Two and Three can be worked on at the same time, or some students can work on one while others work on the other. This is to help with the 3D printing schedule. Too many projects being printed at once will hinder the printing process.

Objective One, the concept art, should take between one and three class periods. If you are unable to do 3D printing, or would really like your students to go in depth with their concept art, this Objective can take longer.

The remaining classes should be devoted to the final two Objectives.

** If some students finish early or seem to grasp the programs better than others, have them help as peer tutors.

On this site, I have included an Achievements tab, this is where students can track their own progress and make sure they have done everything within an Objective.