



WearableLearning
Platform

Unit 1:

Welcome to the
WearableLearning
Platform!



Welcome to the WearableLearning platform!

The WearableLearning platform enables elementary, middle and high school students to play physically active STEM games, using mobile devices, and find STEM within their school or afterschool environments. Students go beyond that: they design their own STEM games, pose STEM problems, and program them into the WearableLearning platform, at wearablelearning.org, exercising their computational thinking.

The Goal of the WearableLearning Platform

The WearableLearning platform aims to improve student education through embodied learning and programmatic thinking. Through our platform, students and teachers can both design and play fun interactive games that incorporate STEM, technology and physical activity.

Welcome to the WearableLearning Platform Programming Course!

Throughout this course you will be introduced to the WearableLearning platform, a unique platform which allows you to design and program games for your students to play! You will follow 5 units, which will guide you through the process of creating your own game. Each unit will include an overview, 3 objectives, videos to watch or content to read, and an activity. After completing these, each unit will also end with a 3 question quiz and 2-3 questions a student may ask! The quiz and questions section is for you to use to assess your learning and progress. It is important to master each unit before moving on to the next. Please move through the course at your own pace. For questions, please visit our FAQ page or contact us with more specific questions.

Watch these videos to learn more:

- [Intro to WearableLearning - 2020 Stem for All Submission](#)
- [Welcome to WearableLearning](#)

Overview of This Unit

Today, we will provide you with an overview of the WearableLearning system and the different games which already exist within the WearableLearning platform that are ready for classroom use! You have already watched 2 videos providing an overview of the WearableLearning project, and during the rest of this unit, you will read about the current games in the system, explore the website, and play a simulated game. The unit will end with a 3 question quiz to assess your learning.

Objectives of This Unit

1. Learn about different games that have been created with the WearableLearning platform
2. Learn how to navigate the WearableLearning website
3. Become familiar with playing a game on the WearableLearning platform

Discover the WearableLearning Website

Let's take a look at the place the WearableLearning platform calls home! Feel free to follow this link to the WearableLearning website: <http://wearablelearning.org/>

Now that you have made it onto the website, let's begin to explore! Answer the following questions with what you find on the WearableLearning website:

1. First, open the wearablelearning.org website which will open to the Home Page
2. Once the website is open, you may want to look at the "Design" tab to see how game designs can be turned into real games! Click on each picture to check out the game designs. On this page, what is the name of the game that George and Lenny are playing?
3. Next, find the "Games" tab to see a library of games that already exist on the WearableLearning platform. On this page, find:
 - a. What topic Integer Hopscotch covers:
 - b. How many yellow shapes are included for the materials in Tangrams Race:
 - c. How many players should be included on each Integer Hopscotch team:
4. Next, find the "Tutorials Series" section under the "Tutorials" tab on the WearableLearning website. In this tab, there are many different tutorials and tips you can find about the WearableLearning platform.
 - a. First, find the Tutorial Series tab, and write down the names of each tutorial video that can be found on the page
 - b. Next, find the Vocab Sheet in the Tutorial tab, and write down the definition of "arrow", "scope", and "states"

- c. Find the Quick Tips in the Tutorial tab, and write down what you think is the most important tip to remember

- d. Oh boy! This WearableLearning stuff sure can be confusing! I have so many questions that need just as many answers, but where should I go? Under what tab can I find the "Frequently Asked Questions" page on the WearableLearning website?

- e. Uh oh! You found bugs in your code while programming a game! ! But these bugs do not have legs to crawl around, and we can help you get them out of your code! Navigate your mouse to the "Tutorials" tab and click on "Tutorial Series" in the dropdown menu. Can you find the name of the tutorial video that teaches people how to remove bugs from their code?

Tangrams Race Simulation

Now that you have learned a little bit about the WearableLearning platform and what games can be found on the website, it is time for you to try a game out for yourself. Today you will be trying a form of the Tangrams Race on your computer or technological device.

To fully understand how to make a game, you first have to understand how a game is played, and what makes a game fun and educational. In this example, you will watch an example of the game “Tangrams Race”, which is a public game that was created on the WearableLearning platform. While watching this game being played, record your observations in order to possibly apply some of the elements seen in the game to your own game. [▶ How to Play Tangrams Race | WearableLearning](#)

Some observations you can record include:

1. What does the game ask players to do?
2. What do you notice about the teams?
3. What components of the game relate to the game’s math topic?
4. How is mobile technology used in the game?
5. How does the game incorporate physical activity?
6. What kind of strategies do the players use?
7. What else do you see happening?

Unit 1 Follow Up Quiz

1. Describe the overarching goals & rules of one of the games you learned about today:
2. Follow the steps below to navigate the website successfully:
 1. Open the wearablelearning.org website which will open to the Home Page
 2. Go to the Menu at the top of the website and scroll over the options until your mouse is on the "Tutorials" tab
 3. A drop down will appear, scroll your mouse down to the first option "Tutorial Series"

What does this page show?

3. Go back to the Tool Bar and scroll over to the "Tutorials" tab again... Click the second option on the drop down titled "FAQs"... This page shows answers to many questions that are often asked. Search through to find the answers to these questions:
 - a. "How do I restart a game?"
 - b. "Can other people edit my game?"
 - c. "What is the debugger?"

Unit 1 Possible Student Questions

Here are 2 questions a student may have while learning this lesson. Think about how you would answer them.

1. Where can I find the answers to a question I have about the WearableLearning platform online?
2. How do I win the tangram race?