

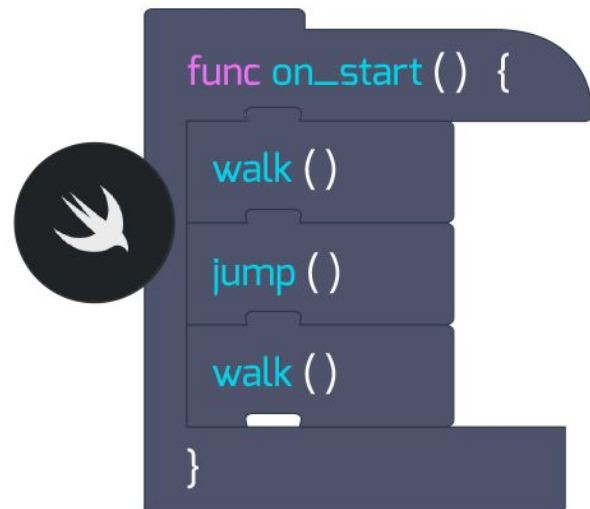
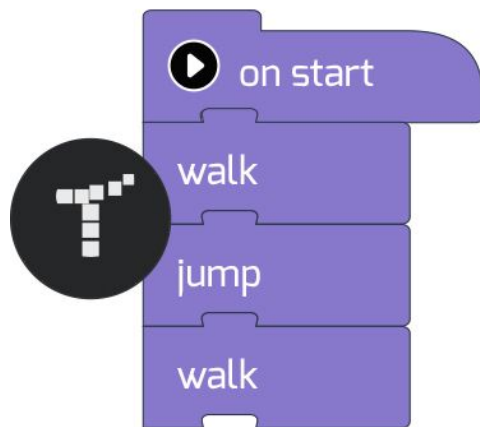


Quick-Start Teacher Guide

Welcome to Tynker!

Tynker is a creative platform designed to make coding fun to learn and easy to teach. Tynker courses Space Cadet and Dragon Spells map directly to the Get Started with Code 1 and 2 courses from Apple's Everyone Can Code program, so it's easy to use Tynker in your computer science curriculum.

With Tynker, students learn to code using visual code blocks that represent real programming concepts. Once they are comfortable with Tynker's visual code blocks, they can transition to Swift within the Tynker app using the Swift button feature, which replaces Tynker blocks with Swift syntax.



Getting Started with Code

Space Cadet and Dragon Spells are two introductory courses that allow students to learn programming fundamentals in a fun, engaging way. In Space Cadet, students ages 5-7 solve puzzles and complete programming challenges set in space. In Dragon Spells, students ages 8-11 learn more programming fundamentals as they train their dragon and collect treasure.

In both courses, students learn through creative play as they solve puzzles, build projects, and animate characters. They can even share their work with the Tynker Community.



Space Cadet
Ages 5-7



Dragon Spells
Ages 8-11

Space Cadet Lessons

Ages 5-7

1.	Crash Landed! <i>Sequencing</i>	You've crash-landed on an alien planet! Sequence commands to follow the path and collect items that you'll need.
2.	Dance Party <i>Create a Sequence</i>	Continue to collect parts for your spaceship. Then build sequences of animations to create an astronaut dance party!
3.	Stay the Course <i>Flexible Sequencing</i>	There are many ways to solve a problem! Try using different strategies to collect more items that you'll need.
4.	Walk. Jump. Repeat. <i>Loops</i>	Try to identify a pattern, and use loops to repeat these patterns and shorten your code!
5.	Glitchy Code <i>Debugging</i>	These puzzles have already been solved, but the solutions are glitchy! Can you debug them?
6.	Asteroids <i>Events and Actions</i>	Use different events, like touching or tilting your screen, to collect parts for your spaceship and dodge asteroids!
7.	Shifty Aliens <i>If Statements</i>	Can your code work in different situations? Use if statements to tackle tricky puzzles where the aliens are moving!
8.	Blast Off! <i>Algorithms</i>	Write algorithms to find the last few items that you need! Then build your own program to make shapes and patterns.



Dragon Spells Lessons

Ages 8-11

1.	Dragon Eggs <i>Algorithms</i>	Choose a dragon, then build algorithms to guide your dragon to the treasure by sequencing code blocks.
2.	Blast Through <i>Debugging</i>	The code is buggy! Can you find the error and fix it to get your dragon to the treasure?
3.	Déjà Vu <i>For Loops</i>	Try to identify a repeating pattern, then shorten your algorithm by putting that code in a loop!
4.	Twisted Trees <i>Decomposition</i>	As the path to the treasure gets complex, think about how to decompose each puzzle into smaller tasks.
5.	Dragon Scrolls <i>Abstractions</i>	Use the same abstract template to create two very different stories, then design a game that demonstrates abstraction.
6.	Ancient Spells <i>Functions</i>	Group similar tasks that you can reuse later into functions. You can call these functions repeatedly.
7.	Catch Me If You Can <i>Conditional Code</i>	Use conditional statements to make your code more flexible. Catch the moving fireflies by checking whether a condition is true, then making a decision about what to do!
8.	The Long Road <i>While and Nested Loops</i>	While loops allow you to perform an action as long as a condition is true, and nested loops make it easy to deal with actions that contain other repeating actions.
9.	Gem Collector <i>Variables, Inputs, and Outputs</i>	Use variables to count how many gems you've collected, then program a quiz that takes input from the user and gives an output in response!
10.	Dragon Maker <i>Design - UI</i>	Build your own game to design dragons! You'll make design and UI choices to make your game fun and easy to use.



How to Get Set Up with Tynker

Your students can use Tynker to work through coding exercises as you complete Apple's Everyone Can Code program.

To get started, all your students need is the Tynker iPad app. Since they'll automatically have access to Space Cadet and Dragon Spells, you can begin teaching right away.

To access all the free features Tynker offers, you'll need to sign in to a teacher account and set up student accounts. When your students complete the courses using free accounts:

- You can monitor your students' progress individually.
- Students can continue coding from home.
- Students gain access to lots of additional free content.
- Multiple students can use the same iPad with their progress tracked and saved separately.



Get set up in four steps:

1. Create a teacher account.
2. Create a classroom.
3. Add students.
4. Monitor students' progress.

Step 1: Create a Teacher Account

Go to tynker.com on a browser and create a free teacher account.

If you already have a teacher account, you can continue using that account and add any new students.



Step 2: Create Classrooms

Create a classroom for each class that you teach.

You do not need to assign Space Cadet or Dragon Spells. They will automatically be available in the Tynker app.



Step 3: Add Students

There are four ways to add students. Some districts prefer to have an administrator set up all of the classrooms and add students to them. In this case, your classrooms should be set up already.

There are four options for adding students yourself:

1. Import student information from a CSV file.
2. Manually create Tynker accounts for all of your students.
3. If your students use Google accounts, have them create Tynker accounts using the "Sign up with Google" option. They can join your class by entering a class code.
4. If your students already have Tynker accounts, there's no need to create new ones. Your students can log in to tynker.com and click their avatar, then select "Join A Class" and enter your class code.

After adding your students, you can print out all their account information by clicking “Generate Student Cards” under the “Students” tab. This creates a document that you can print and cut up to give students their login info.

Step 4: Monitor Student Progress

Once your students log in to their accounts on their iPads, their progress and projects will automatically be synced. To access information about how students are progressing through lessons, go to a classroom and click on the “Gradebook” tab, then choose “Mobile Puzzles.”



Do More with the Tynker App

The free Tynker app has a tremendous amount of features and content that you can explore with your students, including more puzzle-based learning, the Tynker Workshop with over 100 coding templates, drone and robot integrations, and a fully moderated community where students can share and learn.

Additional Puzzles

Explore more puzzle-based courses on the Tynker app, including Candy Quest, Crash Course, and Lazer Racer. In Candy Quest, students help their troll find candy, and in Crash Course, students learn the fundamentals of programming drones and robots (no connected device required). Lazer Racer reinforces geometry as students draw geometric shapes using code.

Tynker Workshop

Go to the Workshop to find over 100 project templates ranging from beginner to advanced. These templates guide students through how to make many different kinds of projects, including stories, physics games, music, animations, and art. Click “Blank Template” to open a blank project and start coding!

In the Tynker Workshop, your students can express themselves with a wide variety of creativity tools. In addition to the many character and background options provided, they



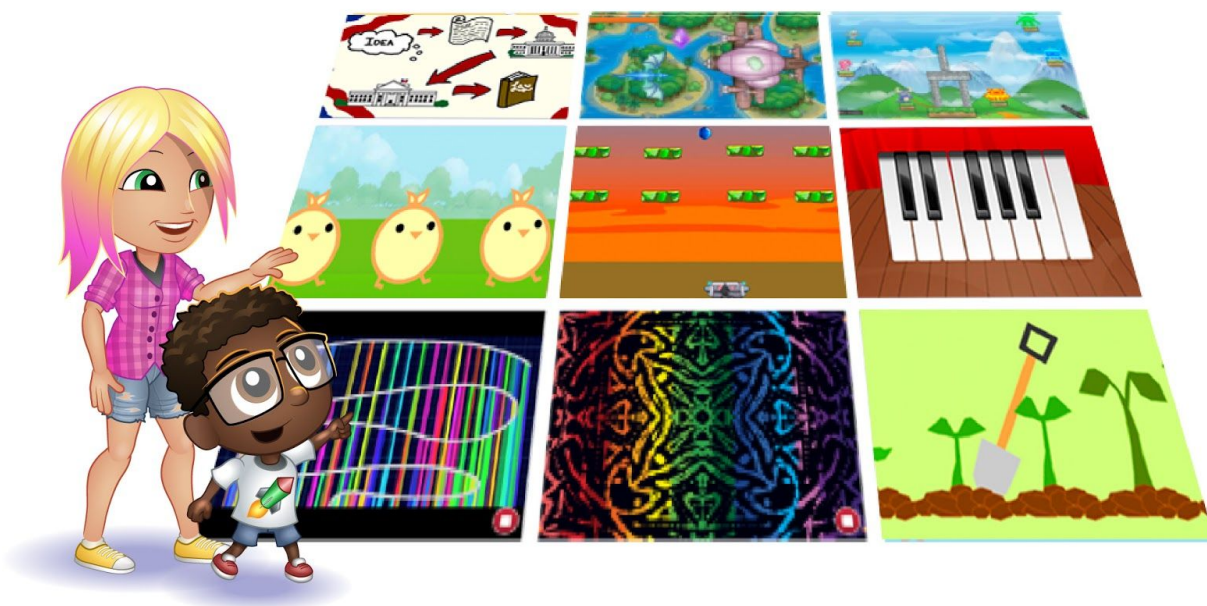
can draw their own artwork or upload images from their iPads. They can even make physics-based games using the built-in Physics Engine.

You can unlock more coding templates by creating free accounts for your students and having them log in to the app. This also allows your students to save their projects to their accounts, meaning that they can log in on a different iPad or on a computer to access and continue working on their projects.

Programming Drones and Robots

The Tynker app supports many different connected toys, including Sphero, Parrot minidrones, and LEGO WeDo 2.0. With Tynker, your students can do more than just play with these toys; they can program them!

To get started, have your students complete the Crash Course puzzles to learn how to program various connected toys. If you own one of the supported devices, your students can jump into the Tynker Workshop and go to the Connected Toys or Drones categories to program the device. Find more information about connected devices on the Tynker website.



Moderated Community

Students can publish their projects and see what other kids are making in our fully moderated community. In the community, students learn from other coders, get inspired, and share their expertise. They'll see tons of incredible projects made by kids just like them, and they'll be motivated to look at the code behind these projects. Students can even remix these projects, making their own custom versions!



All projects are reviewed by Tynker before being published, as well as any time a user reports a project, so you don't need to worry about students seeing or publishing inappropriate content.

We recommend talking to your students about the community guidelines, how to protect their personal information online, and how to report a project if they see something in the community that they don't think is appropriate. In particular, remind them not to use any personally identifying information (such as email addresses, full names, or social media handles), not to upload pictures of themselves or others, and to only publish projects that are kind and respectful.

Going Beyond

Tynker offers a full K-8 Computer Science curriculum with over 300 hours of grade-specific lessons to take students from block coding to advanced text coding. You can explore all Tynker school courses, which include block coding courses, JavaScript and Python courses, and hundreds of Common Core- and NGSS-aligned projects in English, Math, Social Studies, and Science to make it easy for you to integrate coding across the curriculum.

Teacher Resources

We offer tons of [free resources](#) for teachers, including:

- Comprehensive guides
- Free weekly webinars
- Video tutorials on common questions and issues
- The [Tynker Community Forum](#) to connect with other educators

If you have any questions or need support, please send an email to support@tynker.com.
Happy coding!